

# 2020 Index

## IEEE Transactions on Signal Processing

### Vol. 68

This index covers all technical items—papers, correspondence, reviews, etc.—that appeared in this periodical during 2020, and items from previous years that were commented upon or corrected in 2020. Departments and other items may also be covered if they have been judged to have archival value.

The Author Index contains the primary entry for each item, listed under the first author's name. The primary entry includes the coauthors' names, the title of the paper or other item, and its location, specified by the publication abbreviation, year, month, and inclusive pagination. The Subject Index contains entries describing the item under all appropriate subject headings, plus the first author's name, the publication abbreviation, month, and year, and inclusive pages. Note that the item title is found only under the primary entry in the Author Index.

#### Author Index

#### A

- Abdelaziz, M.**, *see* Brihuega, A., *TSP* 2020 3603-3618
- Abdolee, R.**, *see* Ahmadi, M.J., *TSP* 2020 3808-3823
- Abolhasani, M.**, and Rahmani, M., One-Step Prediction for Discrete Time-Varying Nonlinear Systems With Unknown Inputs and Correlated Noises; *TSP* 2020 808-817
- Aboutanios, E.**, *see* Nosrati, H., *TSP* 2020 1374-1389
- Abramenko, O.**, *see* Tran, N., *TSP* 2020 17-32
- Acero, A.**, *see* Wung, J., *TSP* 2020 3559-3574
- Achim, A.**, *see* Karakus, O., *TSP* 2020 6159-6170
- Acir, N.**, *see* Menguc, E.C., *TSP* 2020 5914-5922
- Adal, T.**, *see* Kautsky, V., *TSP* 2020 4258-4267
- Adam, K.**, Scholefield, A., and Vetterli, M., Sampling and Reconstruction of Bandlimited Signals With Multi-Channel Time Encoding; *TSP* 2020 1105-1119
- Adhikary, A.R.**, Zhou, Z., Yang, Y., and Fan, P., Constructions of Cross Z-Complementary Pairs With New Lengths; *TSP* 2020 4700-4712
- Aghasi, A.**, Ahmed, A., Hand, P., and Joshi, B., Bilinear Compressed Sensing Under Known Signs via Convex Programming; *TSP* 2020 6366-6379
- Ahmadi, M.J.**, Arablouei, R., and Abdolee, R., Efficient Estimation of Graph Signals With Adaptive Sampling; *TSP* 2020 3808-3823
- Ahmed, A.**, Blind Deconvolution Using Modulated Inputs; *TSP* 2020 374-387
- Ahmed, A.**, *see* Aghasi, A., *TSP* 2020 6366-6379
- Ahmed, M.M.**, Ho, K.C., and Wang, G., Localization of a Moving Source by Frequency Measurements; *TSP* 2020 4839-4854
- Ahmed, S.**, *see* Zubair, M., *TSP* 2020 2670-2681
- Ai, B.**, *see* Xiao, H., *TSP* 2020 6665-6680
- Ai, Y.**, *see* Yi, W., *TSP* 2020 901-916
- Akamatsu, Y.**, Harakawa, R., Ogawa, T., and Haseyama, M., Brain Decoding of Viewed Image Categories via Semi-Supervised Multi-View Bayesian Generative Model; *TSP* 2020 5769-5781
- Akcakaya, M.**, *see* Kanatsoulis, C.I., *TSP* 2020 1-16
- Akl, N.**, and Tewfik, A., Asynchronous Blind Network-Assisted Diversity Multiple Access; *TSP* 2020 990-1001
- Al-Naffouri, T.**, *see* Elkhilil, K., *TSP* 2020 1574-1588
- Al-Naffouri, T.Y.**, *see* Elkhilil, K., *TSP* 2020 2464-2479
- Al-Naffouri, T.Y.**, *see* Douik, A., *TSP* 2020 284-299
- Alexander, F.J.**, *see* Zhao, G., *TSP* 2020 3849-3859
- Alexandru, R.**, and Dragotti, P.L., Reconstructing Classes of Non-Bandlimited Signals From Time Encoded Information; *TSP* 2020 747-763
- Alghunaim, S.A.**, *see* Yuan, K., *TSP* 2020 4352-4367
- Alhujaili, K.**, *see* Yu, X., *TSP* 2020 1974-1989
- Alistarh, D.**, *see* Gurel, N.M., *TSP* 2020 4268-4282
- Almahorg, K.A.**, and Gohary, R.H., Maximum Likelihood Detection in the Presence of Non-Gaussian Jamming; *TSP* 2020 5722-5735
- Alouini, M.**, *see* Elkhilil, K., *TSP* 2020 2464-2479
- Alouini, M.**, *see* Zubair, M., *TSP* 2020 2670-2681
- Alouini, M.**, *see* Elkhilil, K., *TSP* 2020 1574-1588
- Amiri, R.**, *see* Sadeghi, M., *TSP* 2020 2316-2327
- Amiri, R.**, *see* Noroozi, A., *TSP* 2020 2545-2557
- Ando, S.**, Frequency-Domain Prony Method for Autoregressive Model Identification and Sinusoidal Parameter Estimation; *TSP* 2020 3461-3470
- Andre, R.**, Luciani, X., and Moreau, E., Joint EigenValue Decomposition Algorithms Based on First-Order Taylor Expansion; *TSP* 2020 1716-1727
- Ang, A.M.**, *see* Leplat, V., *TSP* 2020 3400-3410
- Angley, D.**, *see* Krishnamurthy, V., *TSP* 2020 4529-4542
- Antman, A.**, and Leshem, A., Radio Transient Detection in Radio Astronomical Arrays; *TSP* 2020 5648-5663
- Anton-Haro, C.**, *see* Calvo-Fullana, M., *TSP* 2020 3961-3975
- Anttila, L.**, *see* Brihuega, A., *TSP* 2020 3603-3618
- Arablouei, R.**, *see* Ahmadi, M.J., *TSP* 2020 3808-3823
- Arora, A.**, Tsinos, C.G., Rao, B.S.M.R., Chatzinotas, S., and Ottersten, B., Hybrid Transceivers Design for Large-Scale Antenna Arrays Using Majorization-Minimization Algorithms; *TSP* 2020 701-714
- Arulampalam, S.**, Badriasl, L., and Ristic, B., A Closed-Form Estimator for Bearings-Only Fusion of Heterogeneous Passive Sensors; *TSP* 2020 6681-6695
- Arulampalam, S.**, *see* Badriasl, L., *TSP* 2020 4672-4687
- Arunkumar, K.P.**, and Murthy, C.R., Soft Symbol Decoding in Sweep-Spread-Carrier Underwater Acoustic Communications: A Novel Variational Bayesian Algorithm and Its Analysis; *TSP* 2020 2435-2448
- Asif, M.S.**, *see* Hyder, R., *TSP* 2020 1688-1701
- Askerbeyli, F.**, *see* Hellings, C., *TSP* 2020 6467-6480
- Aslam, A.**, and Khalid, Z., Localized Analysis of Signals on the Sphere Over Polygon Regions; *TSP* 2020 4568-4582
- Atia, G.K.**, *see* Rahmani, M., *TSP* 2020 962-977
- Atkins, J.**, *see* Malik, S., *TSP* 2020 4887-4902
- Atkins, J.**, *see* Wung, J., *TSP* 2020 3559-3574
- Aubry, A.**, *see* Rong, Y., *TSP* 2020 1197-1212
- Aubry, A.**, *see* Braca, P., *TSP* 2020 359-373
- Aubry, A.**, De Maio, A., Govoni, M.A., and Martino, L., On the Design of Multi-Spectrally Constrained Constant Modulus Radar Signals; *TSP* 2020 2231-2243
- Aubry, A.**, Maio, A.D., Marano, S., and Rosamilia, M., Single-Pulse Simultaneous Target Detection and Angle Estimation in a Multichannel Phased Array Radar; *TSP* 2020 6649-6664
- Aubry, A.**, Carotenuto, V., De Maio, A., and Pallotta, L., Localization in 2D PBR With Multiple Transmitters of Opportunity: A Constrained Least Squares Approach; *TSP* 2020 634-646
- Awan, D.A.**, Cavalcante, R.L.G., and Stanczak, S., Robust Cell-Load Learning With a Small Sample Set; *TSP* 2020 270-283
- Azim, M.T.**, *see* Kim, C.K., *TSP* 2020 3990-4001
- Aziznejad, S.**, Gupta, H., Campos, J., and Unser, M., Deep Neural Networks With Trainable Activations and Controlled Lipschitz Constant; *TSP* 2020 4688-4699
- Aziznejad, S.**, *see* Dadi, L., *TSP* 2020 4397-4406

#### B

- Ba, D.**, Deeply-Sparse Signal rePresentations (DS<sup>2</sup>P); *TSP* 2020 4727-4742
- Ba, D.**, *see* Song, A.H., *TSP* 2020 2558-2573
- Babadi, B.**, *see* Rupasinghe, A., *TSP* 2020 4382-4396
- Babu, P.**, *see* Sahu, N., *TSP* 2020 142-154
- Badriasl, L.**, *see* Arulampalam, S., *TSP* 2020 6681-6695

- Badriasi, L.**, Arulampalam, S., Nguyen, N.H., and Finn, A., An Algebraic Closed-Form Solution for Bearings-Only Maneuvering Target Motion Analysis From a Nonmaneuvering Platform; *TSP 2020 4672-4687*
- Bahl, R.**, *see* Sahu, N., *TSP 2020 142-154*
- Bai, G.**, Cheng, Y., Tang, W., Peng, Q., and Wang, J., Estimation of Sinusoidal Frequency-Modulated Signal Parameters by Two Branches and Two Stages; *TSP 2020 4959-4970*
- Bai, J.**, Wang, Y., and Shi, Q., Efficient QP-ADMM Decoder for Binary LDPC Codes and Its Performance Analysis; *TSP 2020 503-518*
- Bai, P.**, Safikhani, A., and Michailidis, G., Multiple Change Points Detection in Low Rank and Sparse High Dimensional Vector Autoregressive Models; *TSP 2020 3074-3089*
- Bai, Y.**, Wang, F., Cheung, G., Nakatsukasa, Y., and Gao, W., Fast Graph Sampling Set Selection Using Gershgorin Disc Alignment; *TSP 2020 2419-2434*
- Bajwa, W.U.**, *see* Ghassemi, M., *TSP 2020 33-48*
- Balan, R.V.**, *see* Bohannon, A.W., *TSP 2020 4481-4496*
- Ballal, T.**, *see* Douik, A., *TSP 2020 284-299*
- Balthazar, L.**, Xavier, J., and Sinopoli, B.S., Distributed Linear Estimation Via a Roaming Token; *TSP 2020 780-792*
- Bangun, A.**, Behboodi, A., and Mathar, R., Sensing Matrix Design and Sparse Recovery on the Sphere and the Rotation Group; *TSP 2020 1439-1454*
- Bao, M.**, *see* Zhang, J., *TSP 2020 6142-6158*
- Bar-Shalom, Y.**, *see* Tartakovsky, A.G., *TSP 2020 3371-3384*
- Barbarossa, S.**, *see* Ceci, E., *TSP 2020 1558-1573*
- Barbarossa, S.**, *see* Di Lorenzo, P., *TSP 2020 2061-2076*
- Barbarossa, S.**, and Sardellitti, S., Topological Signal Processing Over Simplicial Complexes; *TSP 2020 2992-3007*
- Barbarossa, S.**, *see* Ceci, E., *TSP 2020 2870-2882*
- Bartlett, N.J.**, Renton, C., and Wills, A.G., A Closed-Form Prediction Update for Extended Target Tracking Using Random Matrices; *TSP 2020 2404-2418*
- Basar, T.**, *see* Cao, X., *TSP 2020 3296-3311*
- Battistelli, G.**, *see* Gao, L., *TSP 2020 5855-5868*
- Battistelli, G.**, *see* Yi, W., *TSP 2020 5204-5218*
- Bazzi, W.M.**, *see* Vahidpour, V., *TSP 2020 3146-3157*
- Beard, M.**, Vo, B.T., and Vo, B., A Solution for Large-Scale Multi-Object Tracking; *TSP 2020 2754-2769*
- Beckus, A.**, *see* Rahmani, M., *TSP 2020 962-977*
- Bedi, A.S.**, *see* Ntalapati, M.K., *TSP 2020 4824-4838*
- Behboodi, A.**, *see* Bangun, A., *TSP 2020 1439-1454*
- Behnia, F.**, *see* Sadeghi, M., *TSP 2020 2316-2327*
- Belmega, E.V.**, *see* Bilenne, O., *TSP 2020 6085-6100*
- Benazza-Benyahia, A.**, *see* Marnissi, Y., *TSP 2020 2356-2369*
- Bendory, T.**, *see* Lan, T., *TSP 2020 1589-1601*
- Bermudez, J.C.M.**, *see* Eweda, E., *TSP 2020 676-686*
- Bernhard, H.**, *see* Hofbauer, C., *TSP 2020 5504-5518*
- Bershad, N.J.**, *see* Eweda, E., *TSP 2020 676-686*
- Bertrand, A.**, *see* Wouters, J., *TSP 2020 6240-6254*
- Besser, K.**, *see* Matthiesen, B., *TSP 2020 3887-3902*
- Besson, O.**, Analysis of the SNR Loss Distribution With Covariance Mismatched Training Samples; *TSP 2020 5759-5768*
- Bhashyam, S.**, *see* Jain, A., *TSP 2020 1331-1345*
- Bialer, O.**, *see* Tիրer, T., *TSP 2020 3358-3370*
- Biguesh, M.**, *see* Ghosjvand, K., *TSP 2020 1662-1672*
- Bilenne, O.**, Mertikopoulos, P., and Belmega, E.V., Fast Optimization With Zeroth-Order Feedback in Distributed, Multi-User MIMO Systems; *TSP 2020 6085-6100*
- Bioglio, V.**, *see* Condo, C., *TSP 2020 2004-2014*
- Blu, T.**, *see* Guo, R., *TSP 2020 5533-5545*
- Blum, R.S.**, *see* Yi, W., *TSP 2020 901-916*
- Boche, H.**, Schaefer, R.F., and Poor, H.V., Communication Under Channel Uncertainty: An Algorithmic Perspective and Effective Construction; *TSP 2020 6224-6239*
- Boche, H.**, and Monich, U.J., Turing Meets Shannon: Computable Sampling Type Reconstruction With Error Control; *TSP 2020 6350-6365*
- Boche, H.**, and Monich, U.J., Turing Computability of Fourier Transforms of Bandlimited and Discrete Signals; *TSP 2020 532-547*
- Boche, H.**, Schaefer, R.F., and Poor, H.V., Denial-of-Service Attacks on Communication Systems: Detectability and Jammer Knowledge; *TSP 2020 3754-3768*
- Bohannon, A.W.**, Lawhern, V.J., Waytowich, N.R., and Balan, R.V., The Autoregressive Linear Mixture Model: A Time-Series Model for an Instantaneous Mixture of Network Processes; *TSP 2020 4481-4496*
- Bohra, P.**, and Unser, M., Continuous-Domain Signal Reconstruction Using  $L_p$ -Norm Regularization; *TSP 2020 4543-4554*
- Boufounos, P.T.**, *see* Goukhshtein, M., *TSP 2020 5924-5939*
- Boumal, N.**, *see* Lan, T., *TSP 2020 1589-1601*
- Braca, P.**, Aubry, A., Millefiori, L.M., De Maio, A., and Marano, S., Multi-Class Random Matrix Filtering for Adaptive Learning; *TSP 2020 359-373*
- Brahma, S.**, *see* Geng, B., *TSP 2020 1091-1104*
- Brendel, A.**, Haubner, T., and Kellermann, W., A Unified Probabilistic View on Spatially Informed Source Separation and Extraction Based on Independent Vector Analysis; *TSP 2020 3545-3558*
- Brie, D.**, *see* Prevost, C., *TSP 2020 931-946*
- Brie, D.**, *see* Flamant, J., *TSP 2020 1870-1883*
- Brihuega, A.**, Anttila, L., Abdelaziz, M., Eriksson, T., Tufvesson, F., and Valkama, M., Digital Predistortion for Multiuser Hybrid MIMO at mmWaves; *TSP 2020 3603-3618*
- Bronstein, A.M.**, *see* Giryes, R., *TSP 2020 529-531*
- Bruna, J.**, *see* Gama, F., *TSP 2020 5680-5695*
- Budhiraja, R.**, *see* Pradhan, H., *TSP 2020 5488-5503*
- Budisin, S.**, *see* Das, S., *TSP 2020 5546-5558*
- Bukkapatnam, S.**, *see* Iquebal, A.S., *TSP 2020 4743-4756*
- Burnwal, S.P.**, and Vidyasagar, M., Deterministic Completion of Rectangular Matrices Using Asymmetric Ramanujan Graphs: Exact and Stable Recovery; *TSP 2020 3834-3848*
- Butler, R.W.**, Pakrooh, P., and Scharf, L.L., A MIMO Version of the Reed-Yu Detector and Its Connection to the Wilks Lambda and Hotelling  $T^2$  Statistics; *TSP 2020 2925-2934*

## C

- Cai, K.**, *see* Zhang, J., *TSP 2020 2186-2198*
- Cai, L.**, *see* Fu, Y., *TSP 2020 5810-5823*
- Cai, L.**, *see* He, J., *TSP 2020 4069-4082*
- Cai, Y.**, *see* Wu, W., *TSP 2020 2912-2924*
- Cai, Y.**, *see* Wu, W., *TSP 2020 4555-4567*
- Cai, Z.**, *see* Chen, J., *TSP 2020 2799-2813*
- Calvo-Fullana, M.**, Anton-Haro, C., Matamoros, J., and Ribeiro, A., Random Access Communication for Wireless Control Systems With Energy Harvesting Sensors; *TSP 2020 3961-3975*
- Campos, J.**, *see* Aziznejad, S., *TSP 2020 4688-4699*
- Cao, J.**, *see* Xie, Y., *TSP 2020 3824-3833*
- Cao, X.**, and Lai, L., Distributed Approximate Newton's Method Robust to Byzantine Attackers; *TSP 2020 6011-6025*
- Cao, X.**, and Basar, T., Decentralized Multi-Agent Stochastic Optimization With Pairwise Constraints and Quantized Communications; *TSP 2020 3296-3311*
- Cao, Z.**, *see* Chen, P., *TSP 2020 4293-4306*
- Carini, A.**, Orcioni, S., Terenzi, A., and Cecchi, S., Orthogonal Periodic Sequences for the Identification of Functional Link Polynomial Filters; *TSP 2020 5308-5321*
- Carotenuto, V.**, *see* Aubry, A., *TSP 2020 634-646*
- Calvante, R.L.G.**, *see* Awan, D.A., *TSP 2020 270-283*
- Ceccato, M.**, Formaggio, F., and Tomasin, S., Spatial GNSS Spoofing Against Drone Swarms With Multiple Antennas and Wiener Filter; *TSP 2020 5782-5794*
- Cecchi, S.**, *see* Carini, A., *TSP 2020 5308-5321*
- Ceci, E.**, and Barbarossa, S., Graph Signal Processing in the Presence of Topology Uncertainties; *TSP 2020 1558-1573*
- Ceci, E.**, Shen, Y., Giannakis, G.B., and Barbarossa, S., Graph-Based Learning Under Perturbations via Total Least-Squares; *TSP 2020 2870-2882*
- Cen, S.**, Zhang, H., Chi, Y., Chen, W., and Liu, T., Convergence of Distributed Stochastic Variance Reduced Methods Without Sampling Extra Data; *TSP 2020 3976-3989*

- Chae, J.**, and Hong, S., Greedy Algorithms for Sparse and Positive Signal Recovery Based on Bit-Wise MAP Detection; *TSP 2020 4017-4029*
- Chai, S.**, and Lau, V.K.N., Online Trajectory and Radio Resource Optimization of Cache-Enabled UAV Wireless Networks With Content and Energy Recharging; *TSP 2020 1286-1299*
- Chakareski, J.**, see Sharma, N., *TSP 2020 1409-1424*
- Chakka, V.K.**, see Shah, S.B., *TSP 2020 1229-1242*
- Chamon, L.F.O.**, Eldar, Y.C., and Ribeiro, A., Functional Nonlinear Sparse Models; *TSP 2020 2449-2463*
- Chamon, L.F.O.**, see Peifer, M., *TSP 2020 2031-2044*
- Champagne, B.**, see Zheng, W., *TSP 2020 4597-4611*
- Chang, K.**, see Pei, S., *TSP 2020 5079-5091*
- Chang, T.**, see Shen, C., *TSP 2020 843-858*
- Chang, T.**, see Shi, Q., *TSP 2020 4242-4257*
- Chattopadhyay, A.**, and Mitra, U., Dynamic Sensor Subset Selection for Centralized Tracking of an IID Process; *TSP 2020 3209-3224*
- Chatzinotas, S.**, see Arora, A., *TSP 2020 701-714*
- Che, Y.**, Zhu, Y., and Shen, X., Multilabel Classification With Multivariate Time Series Predictors; *TSP 2020 5696-5705*
- Chen, B.**, see Xie, Y., *TSP 2020 3824-3833*
- Chen, B.**, Lee, M., and Chen, X., Security-Enhanced Filter Design for Stochastic Systems under Malicious Attack via Smoothed Signal Model and Multiobjective Estimation Method; *TSP 2020 4971-4986*
- Chen, B.**, see Yang, C., *TSP 2020 5244-5259*
- Chen, B.**, see Qin, Z., *TSP 2020 2724-2738*
- Chen, B.**, see Shi, L., *TSP 2020 5940-5953*
- Chen, B.**, Lee, M., and Chen, X., Erratum to "Security-Enhanced Filter Design for Stochastic Systems Under Malicious Attack via Smoothed Signal Model and Multiobjective Estimation Method" [20 4971-4986]; *TSP 2020 5923*
- Chen, B.**, see He, Y., *TSP 2020 181-195*
- Chen, B.**, see Guo, D., *TSP 2020 5795-5809*
- Chen, B.**, see Liu, D., *TSP 2020 5166-5177*
- Chen, C.S.**, see Salaun, L., *TSP 2020 2215-2230*
- Chen, H.**, see Wang, Z., *TSP 2020 5178-5187*
- Chen, H.**, see Ye, Y., *TSP 2020 5842-5854*
- Chen, J.**, Zhang, W., and Poor, H.V., A False Discovery Rate Oriented Approach to Parallel Sequential Change Detection Problems; *TSP 2020 1823-1836*
- Chen, J.**, Zhao, L., Jiang, M., and Wu, Z., Sherman-Morrison Formula Aided Adaptive Channel Estimation for Underwater Visible Light Communication With Fractionally-Sampled OFDM; *TSP 2020 2784-2798*
- Chen, J.**, see Jiang, X., *TSP 2020 5664-5679*
- Chen, J.**, see Liu, J., *TSP 2020 4123-4134*
- Chen, J.**, see Gong, X., *TSP 2020 1168-1180*
- Chen, J.**, and Cai, Z., A New Class of Explicit Interpolatory Splines and Related Measurement Estimation; *TSP 2020 2799-2813*
- Chen, J.**, see Jin, D., *TSP 2020 2087-2104*
- Chen, J.**, see Jin, D., *TSP 2020 2087-2104*
- Chen, J.**, see Jin, D., *TSP 2020 6319-6335*
- Chen, J.**, see Jin, D., *TSP 2020 6319-6335*
- Chen, J.**, see Wang, X., *TSP 2020 4226-4241*
- Chen, J.**, see Kaloorazi, M.F., *TSP 2020 3575-3589*
- Chen, K.**, see Chou, C., *TSP 2020 4094-4107*
- Chen, K.**, Qi, C., and Li, G.Y., Two-Step Codeword Design for Millimeter Wave Massive MIMO Systems With Quantized Phase Shifters; *TSP 2020 170-180*
- Chen, K.**, Werner, S., Kuh, A., and Huang, Y., Nonlinear Adaptive Filtering With Kernel Set-Membership Approach; *TSP 2020 1515-1528*
- Chen, L.**, see Wang, H., *TSP 2020 1425-1438*
- Chen, P.**, and Vaidyanathan, P.P., Convolutional Beamspace for Linear Arrays; *TSP 2020 5395-5410*
- Chen, P.**, see Lin, H., *TSP 2020 647-661*
- Chen, P.**, Chen, Z., Cao, Z., and Wang, X., A New Atomic Norm for DOA Estimation With Gain-Phase Errors; *TSP 2020 4293-4306*
- Chen, S.**, see Xi, F., *TSP 2020 1048-1063*
- Chen, S.**, see Wang, Y., *TSP 2020 5457-5472*
- Chen, S.**, see Gong, S., *TSP 2020 4903-4918*
- Chen, S.**, see Liu, T., *TSP 2020 2015-2030*
- Chen, T.**, see Yin, F., *TSP 2020 5260-5275*
- Chen, T.**, see Wu, Z., *TSP 2020 4583-4596*
- Chen, W.**, see Cen, S., *TSP 2020 3976-3989*
- Chen, W.**, see Gong, X., *TSP 2020 1168-1180*
- Chen, W.**, see Xiao, H., *TSP 2020 6665-6680*
- Chen, W.**, see Guo, D., *TSP 2020 5795-5809*
- Chen, X.**, see Chen, B., *TSP 2020 4971-4986*
- Chen, X.**, see Shao, X., *TSP 2020 420-435*
- Chen, X.**, see Shao, X., *TSP 2020 6578-6593*
- Chen, X.**, see Qi, Q., *TSP 2020 211-224*
- Chen, X.**, see Chen, B., *TSP 2020 5923*
- Chen, Y.**, see Lu, S., *TSP 2020 3676-3691*
- Chen, Z.**, see Fu, Y., *TSP 2020 5810-5823*
- Chen, Z.**, see Yan, Z., *TSP 2020 2613-2628*
- Chen, Z.**, see Chen, P., *TSP 2020 4293-4306*
- Chen, Z.**, see Zhang, J., *TSP 2020 6142-6158*
- Cheng, L.**, Tong, X., Wang, S., Wu, Y., and Poor, H.V., Learning Nonnegative Factors From Tensor Data: Probabilistic Modeling and Inference Algorithm; *TSP 2020 1792-1806*
- Cheng, P.**, see Yan, Z., *TSP 2020 2613-2628*
- Cheng, P.**, see Wang, X., *TSP 2020 4226-4241*
- Cheng, Y.**, see Bai, G., *TSP 2020 4959-4970*
- Chepur, S.P.**, see Rajamaki, R., *TSP 2020 6402-6417*
- Cherni, A.**, Chouzenoux, E., Duval, L., and Pesquet, J., SPOQ $\ell_p$ -Over- $\ell_q$  Regularization for Sparse Signal Recovery Applied to Mass Spectrometry; *TSP 2020 6070-6084*
- Cheung, G.**, see Hu, W., *TSP 2020 2841-2856*
- Cheung, G.**, see Wang, F., *TSP 2020 2814-2829*
- Cheung, G.**, see Bai, Y., *TSP 2020 2419-2434*
- Cheung So, H.**, see Xu, J., *TSP 2020 2770-2783*
- Chi, Y.**, see Cen, S., *TSP 2020 3976-3989*
- Chi, Y.**, see Fu, H., *TSP 2020 3225-3235*
- Chi, Y.**, see Ji, K., *TSP 2020 4210-4225*
- Chin, T.**, see Liu, D., *TSP 2020 5166-5177*
- Chisci, L.**, see Gao, L., *TSP 2020 5855-5868*
- Cho, B.**, see Chou, C., *TSP 2020 4094-4107*
- Cho, B.J.**, and Park, H., Stereo Acoustic Echo Cancellation Based on Maximum Likelihood Estimation With Inter-Channel-Correlated Echo Compensation; *TSP 2020 5188-5203*
- Choi, J.W.**, see Yoo, J.H., *TSP 2020 4135-4147*
- Chopra, R.**, Murthy, C.R., Suraweera, H.A., and Larsson, E.G., Blind Channel Estimation for Downlink Massive MIMO Systems With Imperfect Channel Reciprocity; *TSP 2020 3132-3145*
- Chou, C.**, Hsu, K., Cho, B., Chen, K., and Wu, A.A., Low-Complexity On-Demand Reconstruction for Compressively Sensed Problematic Signals; *TSP 2020 4094-4107*
- Chouzenoux, E.**, see Marnissi, Y., *TSP 2020 2356-2369*
- Chouzenoux, E.**, see Cherni, A., *TSP 2020 6070-6084*
- Christensen, M.G.**, see Li, Q., *TSP 2020 5983-5996*
- Cohen, K.**, see Sery, T., *TSP 2020 2897-2911*
- Cohen, K.**, see Hemo, B., *TSP 2020 1181-1196*
- Cohen, R.**, and Eldar, Y.C., Sparse Array Design via Fractal Geometries; *TSP 2020 4797-4812*
- Coluccia, A.**, Fascista, A., and Ricci, G., CFAR Feature Plane: A Novel Framework for the Analysis and Design of Radar Detectors; *TSP 2020 3903-3916*
- Comon, P.**, see Goulart, J.H.d.M., *TSP 2020 2682-2696*
- Comon, P.**, see Prevost, C., *TSP 2020 931-946*
- Condo, C.**, Bioglio, V., Hafermann, H., and Land, I., Practical Product Code Construction of Polar Codes; *TSP 2020 2004-2014*
- Cootes, T.F.**, see Dong, X., *TSP 2020 6055-6069*
- Couillet, R.**, see Elkhilil, K., *TSP 2020 2464-2479*
- Coupechoux, M.**, see Salaun, L., *TSP 2020 2215-2230*
- Coupechoux, M.**, see Nutalapati, M.K., *TSP 2020 4824-4838*
- Cui, G.**, see Yu, X., *TSP 2020 3619-3634*
- Cui, G.**, see Yu, X., *TSP 2020 1974-1989*
- Cui, S.**, see Li, F., *TSP 2020 1470-1483*

**Cummings, I.T.**, Doane, J.P., Schulz, T.J., and Havens, T.C., Aperture-Level Simultaneous Transmit and Receive With Digital Phased Arrays; *TSP* 2020 1243-1258

**Cvetkovic, Z.**, see Yu, Q., *TSP* 2020 1635-1645

## D

**Da Xu, R.Y.**, see Li, C., *TSP* 2020 3860-3870

**Dadi, L.**, Aziznejad, S., and Unser, M., Generating Sparse Stochastic Processes Using Matched Splines; *TSP* 2020 4397-4406

**Dai, L.**, see Hu, C., *TSP* 2020 1673-1687

**Dai, L.**, see Jiao, R., *TSP* 2020 4919-4932

**Dai, W.**, see Yu, Q., *TSP* 2020 1635-1645

**Dang, X.**, see Yu, X., *TSP* 2020 5968-5982

**Das, S.**, and Majhi, S., Two-Dimensional Z-Complementary Array Code Sets Based on Matrices of Generating Polynomials; *TSP* 2020 5519-5532

**Das, S.**, Parampalli, U., Majhi, S., Liu, Z., and Budisin, S., New Optimal Z-Complementary Code Sets Based on Generalized Paraunitary Matrices; *TSP* 2020 5546-5558

**Davenport, M.A.**, see O'Shaughnessy, M.R., *TSP* 2020 388-403

**Davidson, T.N.**, see Salmani, M., *TSP* 2020 1646-1661

**Day, B.P.**, Evers, A., and Hack, D.E., Multipath Suppression for Continuous Wave Radar via Slepian Sequences; *TSP* 2020 548-557

**de Lamare, R.C.**, see Yu, Y., *TSP* 2020 2199-2214

**de Lamare, R.C.**, see Wang, X., *TSP* 2020 81-96

**De Maio, A.**, see Rong, Y., *TSP* 2020 1197-1212

**De Maio, A.**, see Braca, P., *TSP* 2020 359-373

**De Maio, A.**, see Aubry, A., *TSP* 2020 2231-2243

**De Maio, A.**, see Aubry, A., *TSP* 2020 634-646

**de Oliveira, P.M.R.**, see Goulart, J.H.d.M., *TSP* 2020 2682-2696

**Debbah, M.**, see Matthiesen, B., *TSP* 2020 3887-3902

**DeBrunner, L.S.**, see Xue, D., *TSP* 2020 6444-6452

**DeBrunner, V.**, see Xue, D., *TSP* 2020 6444-6452

**Decedius, K.**, and Tichy, O., Collaborative Sequential State Estimation Under Unknown Heterogeneous Noise Covariance Matrices; *TSP* 2020 5365-5378

**Degleris, A.**, and Gillis, N., A Provably Correct and Robust Algorithm for Convolutional Nonnegative Matrix Factorization; *TSP* 2020 2499-2512

**del Rincon, J.M.**, see Raurale, S.A., *TSP* 2020 2713-2723

**Deng, Y.**, see Li, B., *TSP* 2020 97-112

**Derakhtian, M.**, see Ghojavand, K., *TSP* 2020 1662-1672

**Derakhtian, M.**, see Neinaivaie, M., *TSP* 2020 6547-6561

**Dey, S.S.**, Wang, G., and Xie, Y., Approximation Algorithms for Training One-Node ReLU Neural Networks; *TSP* 2020 6696-6706

**Di Lorenzo, P.**, Barbarossa, S., and Sardellitti, S., Distributed Signal Processing and Optimization Based on In-Network Subspace Projections; *TSP* 2020 2061-2076

**Ding, X.**, Wang, Z.J., and Welch, W.J., Subsampling Generative Adversarial Networks: Density Ratio Estimation in Feature Space With Softplus Loss; *TSP* 2020 1910-1922

**Ding, Z.**, see Dong, J., *TSP* 2020 1136-1151

**Doan, N.**, see Ercan, F., *TSP* 2020 5441-5456

**Doane, J.P.**, see Cummings, I.T., *TSP* 2020 1243-1258

**Dogancay, K.**, see Pang, F., *TSP* 2020 3385-3399

**Dokmanic, I.**, see Tabaghi, P., *TSP* 2020 452-465

**Dokmanic, I.**, see Krekovic, M., *TSP* 2020 2480-2498

**Dokmanic, I.**, see Huang, S., *TSP* 2020 4782-4796

**Domingos, J.**, and Moura, J.M.F., Graph Fourier Transform: A Stable Approximation; *TSP* 2020 4422-4437

**Dong, J.**, Shi, Y., and Ding, Z., Blind Over-the-Air Computation and Data Fusion via Provable Wirtinger Flow; *TSP* 2020 1136-1151

**Dong, L.**, Loyka, S., and Li, Y., Algorithms for Globally-Optimal Secure Signaling Over Gaussian MIMO Wiretap Channels Under Interference Constraints; *TSP* 2020 4513-4528

**Dong, M.**, and Wang, Q., Multi-Group Multicast Beamforming: Optimal Structure and Efficient Algorithms; *TSP* 2020 3738-3753

**Dong, X.**, Taylor, C.J., and Cootes, T.F., Defect Detection and Classification by Training a Generic Convolutional Neural Network Encoder; *TSP* 2020 6055-6069

**Dong, Y.**, Distributed Sensing With Orthogonal Multiple Access: To Code or not to Code?; *TSP* 2020 1315-1330

**Dougherty, E.R.**, see Zhao, G., *TSP* 2020 3849-3859

**Douik, A.**, Liu, X., Ballal, T., Al-Naffouri, T.Y., and Hassibi, B., Precise 3-D GNSS Attitude Determination Based on Riemannian Manifold Optimization Algorithms; *TSP* 2020 284-299

**Dragotti, P.L.**, see Alexandru, R., *TSP* 2020 747-763

**Dragotti, P.L.**, see Huang, J., *TSP* 2020 6633-6648

**Draper, S.C.**, see Goukhshtein, M., *TSP* 2020 5924-5939

**Du, B.**, see Kong, X., *TSP* 2020 3644-3659

**Du, J.**, see Qi, J., *TSP* 2020 3411-3422

**Du, L.**, see Yang, D., *TSP* 2020 4368-4381

**Du, L.**, see Wang, X., *TSP* 2020 4226-4241

**Du, Y.**, Yang, S., and Huang, K., High-Dimensional Stochastic Gradient Quantization for Communication-Efficient Edge Learning; *TSP* 2020 2128-2142

**Du, Y.**, see Yu, X., *TSP* 2020 5968-5982

**Duan, H.**, see Wang, B., *TSP* 2020 1274-1285

**Duarte, M.F.**, see Mo, D., *TSP* 2020 3769-3778

**Duong, T.Q.**, see Nguyen, H.T., *TSP* 2020 1455-1469

**Dutta, A.**, Hanzely, F., Liang, J., and Richtarik, P., Best Pair Formulation & Accelerated Scheme for Non-Convex Principal Component Pursuit; *TSP* 2020 6128-6141

**Duval, L.**, see Cherni, A., *TSP* 2020 6070-6084

**Dytso, A.**, Faus, M., and Poor, H.V., The Vector Poisson Channel: On the Linearity of the Conditional Mean Estimator; *TSP* 2020 5894-5903

## E

**Edfors, O.**, see Rodriguez Sanchez, J., *TSP* 2020 687-700

**Eielsen, A.A.**, Leth, J., Fleming, A.J., Wills, A.G., and Ninness, B., Large-Amplitude Dithering Mitigates Glitches in Digital-to-Analogue Converters; *TSP* 2020 1950-1963

**Eisen, M.**, see Kalogerias, D.S., *TSP* 2020 6272-6286

**Eisen, M.**, and Ribeiro, A., Optimal Wireless Resource Allocation With Random Edge Graph Neural Networks; *TSP* 2020 2977-2991

**Eisert, J.**, see Roth, I., *TSP* 2020 4002-4016

**Elad, M.**, see Rey-Otero, I., *TSP* 2020 519-528

**Eldar, Y.C.**, see Chamon, L.F.O., *TSP* 2020 2449-2463

**Eldar, Y.C.**, see Cohen, R., *TSP* 2020 4797-4812

**Eldar, Y.C.**, see Liu, X., *TSP* 2020 3929-3944

**Eldar, Y.C.**, see Tanaka, Y., *TSP* 2020 2272-2286

**Eldar, Y.C.**, see Huang, T., *TSP* 2020 5706-5721

**Eldar, Y.C.**, see Huang, T., *TSP* 2020 3423-3438

**Eldar, Y.C.**, see Mulleti, S., *TSP* 2020 4627-4642

**Eldar, Y.C.**, see Wang, M., *TSP* 2020 49-64

**Elkhalil, K.**, Kammoun, A., Couillet, R., Al-Naffouri, T.Y., and Alouini, M., A Large Dimensional Study of Regularized Discriminant Analysis; *TSP* 2020 2464-2479

**Elkhalil, K.**, Kammoun, A., Zhang, X., Alouini, M., and Al-Naffouri, T., Risk Convergence of Centered Kernel Ridge Regression With Large Dimensional Data; *TSP* 2020 1574-1588

**Elvander, F.**, and Jakobsson, A., Defining Fundamental Frequency for Almost Harmonic Signals; *TSP* 2020 6453-6466

**Elvira, C.**, and Herzet, C., Safe Squeezing for Antisparsity Coding; *TSP* 2020 3252-3265

**Ercan, F.**, Tonnellier, T., Doan, N., and Gross, W.J., Practical Dynamic SC-Flip Polar Decoders: Algorithm and Implementation; *TSP* 2020 5441-5456

**Eriksson, T.**, see Brihuega, A., *TSP* 2020 3603-3618

**Ernest, T.Z.H.**, Madhukumar, A.S., Sirigina, R.P., and Krishna, A.K., NOMA-Aided UAV Communications over Correlated Rician Shadowed Fading Channels; *TSP* 2020 3103-3116

**Evans, R.**, see Krishnamurthy, V., *TSP* 2020 4529-4542

**Evers, A.**, see Day, B.P., *TSP* 2020 548-557

**Eweda, E.**, Bershad, N.J., and Bermudez, J.C.M., Stochastic Analysis of the Recursive Least Squares Algorithm for Cyclostationary Colored Inputs; *TSP 2020 676-686*

## F

- Fan, P.**, see Adhikary, A.R., *TSP 2020 4700-4712*
- Fan, W.**, Liang, J., So, H.C., and Lu, G., Min-Max Metric for Spectrally Compatible Waveform Design Via Log-Exponential Smoothing; *TSP 2020 1075-1090*
- Fan, X.**, see Li, C., *TSP 2020 3860-3870*
- Fang, C.**, see Li, H., *TSP 2020 4855-4870*
- Fang, J.**, see Wang, B., *TSP 2020 1274-1285*
- Fang, J.**, see Xiao, H., *TSP 2020 6665-6680*
- Fang, X.**, Li, X., and Xie, L., 3-D Distributed Localization With Mixed Local Relative Measurements; *TSP 2020 5869-5881*
- Farias, R.C.**, see Goulart, J.H.d.M., *TSP 2020 2682-2696*
- Farina, A.**, see Liu, J., *TSP 2020 4307-4319*
- Farina, A.**, see Noroozi, A., *TSP 2020 2545-2557*
- Fascista, A.**, see Coluccia, A., *TSP 2020 3903-3916*
- Faus, M.**, see Dytso, A., *TSP 2020 5894-5903*
- Fedorenko, S.V.**, Duhamel/Hollmann-Like Discrete Fourier Transform Algorithm With the Smallest Multiplicative Complexity Over a Finite Field; *TSP 2020 4813-4823*
- Feng, B.**, Jiao, J., Wu, S., Wang, Y., and Zhang, Q., Iterative and Adjustable Soft List Decoding for Polar Codes; *TSP 2020 5559-5572*
- Feng, B.**, Wu, Y., Zheng, M., Xia, X., Wang, Y., and Xiao, C., Large Intelligent Surface Aided Physical Layer Security Transmission; *TSP 2020 5276-5291*
- Feng, X.**, see Kong, X., *TSP 2020 3644-3659*
- Feng, Y.**, see Liu, J., *TSP 2020 3022-3032*
- Field, R.**, Quach, T., and Ting, C., Efficient Generalized Boundary Detection Using a Sliding Information Distance; *TSP 2020 6394-6401*
- Finn, A.**, see Badriasl, L., *TSP 2020 4672-4687*
- Flamant, J.**, Miron, S., and Brie, D., Quaternion Non-Negative Matrix Factorization: Definition, Uniqueness, and Algorithm; *TSP 2020 1870-1883*
- Flanagan, M.F.**, see Wang, M., *TSP 2020 49-64*
- Fleming, A.J.**, see Eilsen, A.A., *TSP 2020 1950-1963*
- Flinth, A.**, see Roth, I., *TSP 2020 4002-4016*
- Florea, M.I.**, and Vorobyov, S.A., A Generalized Accelerated Composite Gradient Method: Uniting Nesterov's Fast Gradient Method and FISTA; *TSP 2020 3033-3048*
- Flores, F.J.**, see Song, A.H., *TSP 2020 2558-2573*
- Formaggio, F.**, see Ceccato, M., *TSP 2020 5782-5794*
- Fortunati, S.**, Renaux, A., and Pascal, F., Robust Semiparametric Efficient Estimators in Complex Elliptically Symmetric Distributions; *TSP 2020 5003-5015*
- Fortunati, S.**, Sanguinetti, L., Gini, F., Greco, M.S., and Himed, B., Massive MIMO Radar for Target Detection; *TSP 2020 859-871*
- Fridli, S.**, see Kovacs, P., *TSP 2020 478-492*
- Friedlander, B.**, The Extended Manifold for Antenna Arrays; *TSP 2020 493-502*
- Fritsche, C.**, see Jin, D., *TSP 2020 1120-1135*
- Fu, H.**, Chi, Y., and Liang, Y., Guaranteed Recovery of One-Hidden-Layer Neural Networks via Cross Entropy; *TSP 2020 3225-3235*
- Fu, W.**, see Qin, J., *TSP 2020 3266-3279*
- Fu, X.**, see Kanatsoulis, C.I., *TSP 2020 1-16*
- Fu, X.**, see Zhang, G., *TSP 2020 3660-3675*
- Fu, X.**, Ibrahim, S., Wai, H., Gao, C., and Huang, K., Block-Randomized Stochastic Proximal Gradient for Low-Rank Tensor Factorization; *TSP 2020 2170-2185*
- Fu, X.**, see Shi, Q., *TSP 2020 4242-4257*
- Fu, X.**, see Lyu, Q., *TSP 2020 2697-2712*
- Fu, X.**, see Yang, B., *TSP 2020 2857-2869*
- Fu, Y.**, Zhu, T., Xiang, Y., Chen, Z., and Cai, L., Stability Analysis of  $\ell_{0,\infty}$ -Norm Based Convolutional Sparse Coding Using Stripe Coherence; *TSP 2020 5810-5823*

## G

- Gafni, T.**, see Hemo, B., *TSP 2020 1181-1196*
- Gama, F.**, see Ruiz, L., *TSP 2020 127-141*
- Gama, F.**, Bruna, J., and Ribeiro, A., Stability Properties of Graph Neural Networks; *TSP 2020 5680-5695*
- Gama, F.**, see Ruiz, L., *TSP 2020 6303-6318*
- Gan, C.**, Zhou, R., Yang, J., and Shen, C., Cost-Aware Cascading Bandits; *TSP 2020 3692-3706*
- Gan, S.**, see Liu, T., *TSP 2020 2015-2030*
- Gao, B.**, Sun, X., Wang, Y., and Xu, Z., Perturbed Amplitude Flow for Phase Retrieval; *TSP 2020 5427-5440*
- Gao, C.**, see Fu, X., *TSP 2020 2170-2185*
- Gao, F.**, see Wang, M., *TSP 2020 49-64*
- Gao, L.**, Battistelli, G., and Chisci, L., Fusion of Labeled RFS Densities With Minimum Information Loss; *TSP 2020 5855-5868*
- Gao, W.**, see Bai, Y., *TSP 2020 2419-2434*
- Gao, X.**, see Hu, W., *TSP 2020 2841-2856*
- Gao, X.**, see You, L., *TSP 2020 2645-2659*
- Gao, X.**, see Ke, M., *TSP 2020 764-779*
- Gao, Z.**, see Ke, M., *TSP 2020 764-779*
- Garcia, F.J.I.**, see Zhu, Y., *TSP 2020 3049-3063*
- Garcia-Fernandez, A.F.**, Rahmathullah, A.S., and Svensson, L., A Metric on the Space of Finite Sets of Trajectories for Evaluation of Multi-Target Tracking Algorithms; *TSP 2020 3917-3928*
- Garcia-Fernandez, A.F.**, and Maskell, S., Continuous-Discrete Multiple Target Filtering: PMBM, PHD and CPHD Filter Implementations; *TSP 2020 1300-1314*
- Garcia-Fernandez, A.F.**, Svensson, L., Williams, J.L., Xia, Y., and Granstrom, K., Trajectory Poisson Multi-Bernoulli Filters; *TSP 2020 4933-4945*
- Garreau, D.**, see Keriven, N., *TSP 2020 3515-3528*
- Geng, B.**, Li, Q., and Varshney, P.K., Prospect Theory Based Crowdsourcing for Classification in the Presence of Spammers; *TSP 2020 4083-4093*
- Geng, B.**, Brahma, S., Wimalajeewa, T., Varshney, P.K., and Rangaswamy, M., Prospect Theoretic Utility Based Human Decision Making in Multi-Agent Systems; *TSP 2020 1091-1104*
- Ghassemi, M.**, Shakeri, Z., Sarwate, A.D., and Bajwa, W.U., Learning Mixtures of Separable Dictionaries for Tensor Data: Analysis and Algorithms; *TSP 2020 33-48*
- Ghojvand, K.**, Derakhtian, M., and Biguesh, M., Rao-Based Detectors for Adaptive Target Detection in the Presence of Signal-Dependent Interference; *TSP 2020 1662-1672*
- Giannakis, G.B.**, see Lu, Q., *TSP 2020 2586-2597*
- Giannakis, G.B.**, see Ceci, E., *TSP 2020 2870-2882*
- Giannakis, G.B.**, see Lee, D., *TSP 2020 3779-3792*
- Giannakis, G.B.**, see Ioannidis, V.N., *TSP 2020 6535-6546*
- Giannakis, G.B.**, see Wu, Z., *TSP 2020 4583-4596*
- Gillis, N.**, see Leplat, V., *TSP 2020 3400-3410*
- Gillis, N.**, see Degleris, A., *TSP 2020 2499-2512*
- Gini, F.**, see Fortunati, S., *TSP 2020 859-871*
- Giryas, R.**, see Leibovitz, G., *TSP 2020 3707-3722*
- Giryas, R.**, Sapiro, G., and Bronstein, A.M., Corrections to "Deep Neural Networks With Random Gaussian Weights: A Universal Classification Strategy?" [Jul 1, 2016 3444-3457]; *TSP 2020 529-531*
- Gohary, R.H.**, see Almahorg, K.A., *TSP 2020 5722-5735*
- Gong, J.**, see Shen, C., *TSP 2020 843-858*
- Gong, P.**, see Wang, H., *TSP 2020 1425-1438*
- Gong, S.**, Xing, C., Lau, V.K.N., Chen, S., and Hanzo, L., Majorization-Minimization Aided Hybrid Transceivers for MIMO Interference Channels; *TSP 2020 4903-4918*
- Gong, X.**, Chen, W., and Chen, J., A Low-Rank Tensor Dictionary Learning Method for Hyperspectral Image Denoising; *TSP 2020 1168-1180*
- Goukhshtein, M.**, Boufounos, P.T., Koike-Akino, T., and Draper, S.C., Distributed Coding of Quantized Random Projections; *TSP 2020 5924-5939*
- Goulart, J.H.d.M.**, de Oliveira, P.M.R., Farias, R.C., Zarzoso, V., and Comon, P., Alternating Group Lasso for Block-Term Tensor Decomposition and Application to ECG Source Separation; *TSP 2020 2682-2696*

- Govoni, M.A.**, *see* Aubry, A., *TSP* 2020 2231-2243
- Granstrom, K.**, *see* Garcia-Fernandez, A.F., *TSP* 2020 4933-4945
- Greco, M.S.**, *see* Yan, J., *TSP* 2020 4055-4068
- Greco, M.S.**, *see* Fortunati, S., *TSP* 2020 859-871
- Gross, W.J.**, *see* Ercan, F., *TSP* 2020 5441-5456
- Grossi, E.**, Lops, M., and Venturino, L., Joint Design of Surveillance Radar and MIMO Communication in Cluttered Environments; *TSP* 2020 1544-1557
- Gu, K.**, Wang, Y., and Shen, Y., Cooperative Detection by Multi-Agent Networks in the Presence of Position Uncertainty; *TSP* 2020 5411-5426
- Gu, Y.**, *see* Xu, X., *TSP* 2020 3117-3131
- Gu, Y.**, *see* Li, G., *TSP* 2020 3169-3178
- Gu, Y.**, *see* Xie, Y., *TSP* 2020 3824-3833
- Gu, Y.**, *see* Yang, C., *TSP* 2020 5244-5259
- Gu, Y.**, *see* Mao, X., *TSP* 2020 2513-2528
- Guan, X.**, *see* He, J., *TSP* 2020 4069-4082
- Guan, Y.L.**, *see* Liu, Z., *TSP* 2020 1529-1543
- Gulcu, T.C.**, Comments on "Deep Neural Networks With Random Gaussian Weights: A Universal Classification Strategy?" *TSP* 2020 2401-2403
- Gunduz, D.**, *see* Mohammadi Amiri, M., *TSP* 2020 2155-2169
- Guo, D.**, Chen, B., Chen, W., Wang, C., Liu, H., and Zhou, M., Variational Temporal Deep Generative Model for Radar HRRP Target Recognition; *TSP* 2020 5795-5809
- Guo, R.**, and Blu, T., FRI Sensing: Retrieving the Trajectory of a Mobile Sensor From Its Temporal Samples; *TSP* 2020 5533-5545
- Guo, W.**, *see* Wei, Z., *TSP* 2020 6187-6197
- Guo, W.**, *see* You, K., *TSP* 2020 4194-4209
- Guo, W.**, *see* Li, B., *TSP* 2020 97-112
- Guo, Z.**, *see* Hu, W., *TSP* 2020 2841-2856
- Gupta, H.**, *see* Aziznejad, S., *TSP* 2020 4688-4699
- Gupta, S.**, *see* Huang, S., *TSP* 2020 4782-4796
- Gur, E.**, Sabach, S., and Shtern, S., Alternating Minimization Based First-Order Method for the Wireless Sensor Network Localization Problem; *TSP* 2020 6418-6431
- Gurel, N.M.**, Kara, K., Stojanov, A., Smith, T., Lemmin, T., Alistarh, D., Puschel, M., and Zhang, C., Compressive Sensing Using Iterative Hard Thresholding With Low Precision Data Representation: Theory and Applications; *TSP* 2020 4268-4282
- Gustafsson, F.**, *see* Radnosrati, K., *TSP* 2020 3590-3602
- Gustafsson, F.**, *see* Jin, D., *TSP* 2020 1120-1135
- ## H
- Habets, E.A.P.**, *see* Taseska, M., *TSP* 2020 314-326
- Hack, D.E.**, *see* Day, B.P., *TSP* 2020 548-557
- Haddad, D.B.**, *see* Silva, T.T.P., *TSP* 2020 5882-5893
- Hafermann, H.**, *see* Condo, C., *TSP* 2020 2004-2014
- Hallam, K.M.**, *see* Rubaiyat, A.H.M., *TSP* 2020 3312-3324
- Halme, T.**, *see* Nitzan, E., *TSP* 2020 4871-4886
- Han, M.**, *see* Shi, J., *TSP* 2020 4041-4054
- Han, Y.S.**, *see* Lin, H., *TSP* 2020 647-661
- Hand, P.**, *see* Aghasi, A., *TSP* 2020 6366-6379
- Hanzely, F.**, *see* Dutta, A., *TSP* 2020 6128-6141
- Hanzo, L.**, *see* Gong, S., *TSP* 2020 4903-4918
- Haqiqatnejad, A.**, Kayhan, F., and Ottersten, B., Robust SINR-Constrained Symbol-Level Multiuser Precoding With Imperfect Channel Knowledge; *TSP* 2020 1837-1852
- Harakawa, R.**, *see* Akamatsu, Y., *TSP* 2020 5769-5781
- Hare, J.Z.**, Uribe, C.A., Kaplan, L., and Jadbabaie, A., Non-Bayesian Social Learning With Uncertain Models; *TSP* 2020 4178-4193
- Harel, N.**, and Routtenberg, T., Low-Complexity Methods for Estimation After Parameter Selection; *TSP* 2020 1152-1167
- Harris, C.J.**, *see* Liu, T., *TSP* 2020 2015-2030
- Haselmayr, W.**, *see* Hofbauer, C., *TSP* 2020 5504-5518
- Haseyama, M.**, *see* Akamatsu, Y., *TSP* 2020 5769-5781
- Hassibi, B.**, *see* Douik, A., *TSP* 2020 284-299
- Haubner, T.**, *see* Brendel, A., *TSP* 2020 3545-3558
- Haupt, J.**, *see* Rambhatla, S., *TSP* 2020 1760-1775
- Haupt, J.**, *see* Ren, J., *TSP* 2020 3325-3340
- Havens, T.C.**, *see* Cummings, I.T., *TSP* 2020 1243-1258
- Hayakawa, R.**, and Hayashi, K., Asymptotic Performance of Discrete-Valued Vector Reconstruction via Box-Constrained Optimization With Sum of  $\ell_1$  Regularizers; *TSP* 2020 4320-4335
- Hayashi, K.**, *see* Hayakawa, R., *TSP* 2020 4320-4335
- He, H.**, *see* Yu, Y., *TSP* 2020 2199-2214
- He, H.**, Wen, C., Jin, S., and Li, G.Y., Model-Driven Deep Learning for MIMO Detection; *TSP* 2020 1702-1715
- He, J.**, Cai, L., and Guan, X., Differential Private Noise Adding Mechanism and Its Application on Consensus Algorithm; *TSP* 2020 4069-4082
- He, X.**, *see* Zhang, J., *TSP* 2020 621-633
- He, Y.**, Wang, F., Li, Y., Qin, J., and Chen, B., Robust Matrix Completion via Maximum Correntropy Criterion and Half-Quadratic Optimization; *TSP* 2020 181-195
- He, Z.**, *see* Zhang, X., *TSP* 2020 327-342
- He, Z.**, *see* Zhang, M., *TSP* 2020 2386-2400
- Heath, R.W.**, *see* Kumari, P., *TSP* 2020 715-730
- Heinecke, A.**, *see* Hwang, W., *TSP* 2020 196-210
- Hellings, C.**, *see* Matthiesen, B., *TSP* 2020 2529-2544
- Hellings, C.**, Askerbeyli, F., and Utschick, W., Two-User SIMO Interference Channel With Treating Interference as Noise: Improper Signaling Versus Time-Sharing; *TSP* 2020 6467-6480
- Hemo, B.**, Gafni, T., Cohen, K., and Zhao, Q., Searching for Anomalies Over Composite Hypotheses; *TSP* 2020 1181-1196
- Hendeby, G.**, *see* Radnosrati, K., *TSP* 2020 3590-3602
- Hero, A.O.**, *see* Sekeh, S.Y., *TSP* 2020 3793-3807
- Herzet, C.**, *see* Elvira, C., *TSP* 2020 3252-3265
- Heusdens, R.**, *see* Li, Q., *TSP* 2020 5983-5996
- Himed, B.**, *see* Fortunati, S., *TSP* 2020 859-871
- Ho, K.C.**, *see* Sun, Y., *TSP* 2020 2256-2271
- Ho, K.C.**, *see* Zhang, Y., *TSP* 2020 4438-4453
- Ho, K.C.**, *see* Ahmed, M.M., *TSP* 2020 4839-4854
- Ho, K.C.**, *see* Le, T., *TSP* 2020 6521-6534
- Ho, K.C.**, *see* Le, T., *TSP* 2020 1853-1869
- Ho, K.C.**, *see* Wang, Y., *TSP* 2020 5457-5472
- Ho, K.C.**, *see* Jia, T., *TSP* 2020 5824-5841
- Hofbauer, C.**, Haselmayr, W., Bernhard, H., and Huemer, M., On the Inclusion and Utilization of Pilot Tones in Unique Word OFDM; *TSP* 2020 5504-5518
- Hong, M.**, *see* Zhang, G., *TSP* 2020 3660-3675
- Hong, M.**, *see* Lu, S., *TSP* 2020 3676-3691
- Hong, M.**, *see* Shi, Q., *TSP* 2020 4242-4257
- Hong, M.**, *see* Wei, Y., *TSP* 2020 6336-6349
- Hong, M.**, *see* Shi, Q., *TSP* 2020 4108-4122
- Hong, S.**, *see* Chae, J., *TSP* 2020 4017-4029
- Horstmann, S.**, Ramirez, D., and Schreiber, P.J., Two-Channel Passive Detection of Cyclostationary Signals; *TSP* 2020 2340-2355
- Hoseinnezhad, R.**, *see* Yi, W., *TSP* 2020 1602-1617
- Hoseinnezhad, R.**, *see* Yi, W., *TSP* 2020 241-256
- Hosseini Andargoli, S.M.**, *see* Molaie, A.M., *TSP* 2020 404-419
- Hsieh, S.**, Liang, W., Lu, C., and Pei, S., Distributed Compressive Sensing: Performance Analysis With Diverse Signal Ensembles; *TSP* 2020 3500-3514
- Hsu, K.**, *see* Chou, C., *TSP* 2020 4094-4107
- Hsue, W.**, Eigenvectors of Ordinary, Generalized, Centered and Offset Discrete Fourier Transforms Based on Lookup Table Methods: Efficiency and Approximation Uses; *TSP* 2020 1776-1791
- Hu, B.**, Song, Z., and Zhang, L., Fast and Efficient Time-Reversal Imaging Using Space-Frequency Propagator Method; *TSP* 2020 2077-2086
- Hu, C.**, Wang, X., Dai, L., and Ma, J., Partially Coherent Compressive Phase Retrieval for Millimeter-Wave Massive MIMO Channel Estimation; *TSP* 2020 1673-1687
- Hu, W.**, Gao, X., Cheung, G., and Guo, Z., Feature Graph Learning for 3D Point Cloud Denoising; *TSP* 2020 2841-2856
- Hu, Y.**, *see* Mao, X., *TSP* 2020 2513-2528
- Hua, Y.**, *see* Zhu, Q., *TSP* 2020 2629-2644
- Hua, Z.**, Zhang, Y., and Zhou, Y., Two-Dimensional Modular Chaotification System for Improving Chaos Complexity; *TSP* 2020 1937-1949

- Huang, J.**, and Dragotti, P.L., Learning Deep Analysis Dictionaries for Image Super-Resolution; *TSP 2020 6633-6648*
- Huang, J.**, *see* Wang, X., *TSP 2020 81-96*
- Huang, K.**, *see* Du, Y., *TSP 2020 2128-2142*
- Huang, K.**, *see* Fu, X., *TSP 2020 2170-2185*
- Huang, K.**, *see* Yang, B., *TSP 2020 2857-2869*
- Huang, L.**, *see* Wang, Y., *TSP 2020 5457-5472*
- Huang, S.**, Gupta, S., and Dokmanic, I., Solving Complex Quadratic Systems With Full-Rank Random Matrices; *TSP 2020 4782-4796*
- Huang, T.**, *see* Liu, X., *TSP 2020 3929-3944*
- Huang, T.**, Shlezinger, N., Xu, X., Ma, D., Liu, Y., and Eldar, Y.C., Multi-Carrier Agile Phased Array Radar; *TSP 2020 5706-5721*
- Huang, T.**, Shlezinger, N., Xu, X., Liu, Y., and Eldar, Y.C., MAJoRCom: A Dual-Function Radar Communication System Using Index Modulation; *TSP 2020 3423-3438*
- Huang, Y.**, *see* Li, J., *TSP 2020 5602-5616*
- Huang, Y.**, Vorobyov, S.A., and Luo, Z., Quadratic Matrix Inequality Approach to Robust Adaptive Beamforming for General-Rank Signal Model; *TSP 2020 2244-2255*
- Huang, Y.**, *see* Chen, K., *TSP 2020 1515-1528*
- Huemer, M.**, *see* Hofbauer, C., *TSP 2020 5504-5518*
- Huo, K.**, *see* Zhang, X., *TSP 2020 5138-5151*
- Hutchinson, M.N.**, *see* Rubaiyat, A.H.M., *TSP 2020 3312-3324*
- Hwang, W.**, *see* Nguyen, H.T., *TSP 2020 1455-1469*
- Hwang, W.**, and Heinecke, A., Un-Rectifying Non-Linear Networks for Signal Representation; *TSP 2020 196-210*
- Hyder, R.**, and Asif, M.S., Generative Models for Low-Dimensional Video Representation and Reconstruction; *TSP 2020 1688-1701*

## I

- Ibrahim, M.S.**, Konar, A., and Sidiropoulos, N.D., Fast Algorithms for Joint Multicast Beamforming and Antenna Selection in Massive MIMO; *TSP 2020 1897-1909*
- Ibrahim, S.**, *see* Fu, X., *TSP 2020 2170-2185*
- Igreja, F.**, *see* Silva, T.T.P., *TSP 2020 5882-5893*
- Ilhan, F.**, and Kozat, S.S., Modeling of Spatio-Temporal Hawkes Processes With Randomized Kernels; *TSP 2020 4946-4958*
- Ioannidis, V.N.**, *see* Lu, Q., *TSP 2020 2586-2597*
- Ioannidis, V.N.**, Marques, A.G., and Giannakis, G.B., Tensor Graph Convolutional Networks for Multi-Relational and Robust Learning; *TSP 2020 6535-6546*
- Iqbal, A.S.**, Bukkapatnam, S., and Srinivasa, A., Change Detection in Complex Dynamical Systems Using Intrinsic Phase and Amplitude Synchronization; *TSP 2020 4743-4756*
- Ishii, H.**, *see* Wang, X., *TSP 2020 4226-4241*
- Iu, H.H.C.**, *see* Qian, G., *TSP 2020 978-989*

## J

- Jadbabaie, A.**, *see* Wai, H., *TSP 2020 436-451*
- Jadbabaie, A.**, *see* Hare, J.Z., *TSP 2020 4178-4193*
- Jain, A.**, Sarvepalli, P., Bhashyam, S., and Kannu, A.P., Algorithms for Change Detection With Sparse Signals; *TSP 2020 1331-1345*
- Jakobsson, A.**, *see* Elvander, F., *TSP 2020 6453-6466*
- Ji, K.**, Tan, J., Xu, J., and Chi, Y., Learning Latent Features With Pairwise Penalties in Low-Rank Matrix Completion; *TSP 2020 4210-4225*
- Jia, R.**, *see* Shao, X., *TSP 2020 420-435*
- Jia, T.**, Ho, K.C., Wang, H., and Shen, X., Localization of a Moving Object With Sensors in Motion by Time Delays and Doppler Shifts; *TSP 2020 5824-5841*
- Jiang, M.**, *see* Chen, J., *TSP 2020 2784-2798*
- Jiang, S.**, *see* Wu, W., *TSP 2020 2912-2924*
- Jiang, T.**, *see* Kong, D., *TSP 2020 1259-1273*
- Jiang, W.**, *see* Zhang, X., *TSP 2020 5138-5151*
- Jiang, X.**, Chen, J., Liu, X., Zoubir, A.M., and Zhou, Z., Phase-Only Robust Minimum Dispersion Beamforming; *TSP 2020 5664-5679*
- Jiang, Y.**, *see* Wei, X., *TSP 2020 2302-2315*

- Jiao, J.**, *see* Feng, B., *TSP 2020 5559-5572*
- Jiao, R.**, and Dai, L., On the Max-Min Fairness of BeamSpace MIMO-NOMA; *TSP 2020 4919-4932*
- Jin, D.**, Yin, F., Fritsche, C., Gustafsson, F., and Zoubir, A.M., Bayesian Cooperative Localization Using Received Signal Strength With Unknown Path Loss Exponent: Message Passing Approaches; *TSP 2020 1120-1135*
- Jin, D.**, Chen, J., Richard, C., Chen, J., and Sayed, A.H., Affine Combination of Diffusion Strategies Over Networks; *TSP 2020 2087-2104*
- Jin, D.**, Chen, J., Richard, C., and Chen, J., Online Proximal Learning Over Jointly Sparse Multitask Networks With  $\ell_{\infty,1}$  Regularization; *TSP 2020 6319-6335*
- Jin, J.**, *see* Zhang, H., *TSP 2020 1021-1033*
- Jin, S.**, *see* Yang, X., *TSP 2020 3341-3357*
- Jin, S.**, *see* He, H., *TSP 2020 1702-1715*
- Jin, S.**, *see* Wang, C., *TSP 2020 1484-1499*
- Jing, Y.**, *see* Xing, C., *TSP 2020 1618-1634*
- Johansson, K.H.**, *see* Yi, X., *TSP 2020 731-746*
- Jorswieck, E.A.**, *see* Matthiesen, B., *TSP 2020 2529-2544*
- Jorswieck, E.A.**, *see* Matthiesen, B., *TSP 2020 3887-3902*
- Joseph, G.**, and Murthy, C.R., On the Convergence of a Bayesian Algorithm for Joint Dictionary Learning and Sparse Recovery; *TSP 2020 343-358*
- Joshi, B.**, *see* Aghasi, A., *TSP 2020 6366-6379*
- Jukic, A.**, *see* Wung, J., *TSP 2020 3559-3574*
- Jung, A.**, *see* Tran, N., *TSP 2020 17-32*

## K

- Kalogerias, D.S.**, Eisen, M., Pappas, G.J., and Ribeiro, A., Model-Free Learning of Optimal Ergodic Policies in Wireless Systems; *TSP 2020 6272-6286*
- Kaloorazi, M.F.**, and Chen, J., Efficient Low-Rank Approximation of Matrices Based on Randomized Pivoted Decomposition; *TSP 2020 3575-3589*
- Kalyani, S.**, *see* Tholeti, T., *TSP 2020 5063-5078*
- Kalyani, S.**, *see* Menon, V., *TSP 2020 5047-5062*
- Kammoun, A.**, *see* Elkhailil, K., *TSP 2020 2464-2479*
- Kammoun, A.**, *see* Elkhailil, K., *TSP 2020 1574-1588*
- Kanatsoulis, C.I.**, Fu, X., Sidiropoulos, N.D., and Akcakaya, M., Tensor Completion From Regular Sub-Nyquist Samples; *TSP 2020 1-16*
- Kang, X.**, *see* Ma, J., *TSP 2020 4148-4162*
- Kannu, A.P.**, *see* Jain, A., *TSP 2020 1331-1345*
- Kaplan, L.**, *see* Hare, J.Z., *TSP 2020 4178-4193*
- Kar, S.**, *see* Xin, R., *TSP 2020 6255-6271*
- Kara, K.**, *see* Gurel, N.M., *TSP 2020 4268-4282*
- Karakus, O.**, Mayo, P., and Achim, A., Convergence Guarantees for Non-Convex Optimisation With Cauchy-Based Penalties; *TSP 2020 6159-6170*
- Karimi, S.**, and Shamsollahi, M.B., Tractable Inference and Observation Likelihood Evaluation in Latent Structure Influence Models; *TSP 2020 5736-5745*
- Karimian, A.**, *see* Rahmani, M., *TSP 2020 962-977*
- Kautsky, V.**, Koldovsky, Z., Tichavsky, P., and Zarzoso, V., Cramér–Rao Bounds for Complex-Valued Independent Component Extraction: Determined and Piecewise Determined Mixing Models; *TSP 2020 5230-5243*
- Kautsky, V.**, Tichavsky, P., Koldovsky, Z., and Adal, T., Performance Bounds for Complex-Valued Independent Vector Analysis; *TSP 2020 4258-4267*
- Kayhan, F.**, *see* Haqiqatnejad, A., *TSP 2020 1837-1852*
- Ke, M.**, Gao, Z., Wu, Y., Gao, X., and Schober, R., Compressive Sensing-Based Adaptive Active User Detection and Channel Estimation: Massive Access Meets Massive MIMO; *TSP 2020 764-779*
- Kellermann, W.**, *see* Brendel, A., *TSP 2020 3545-3558*
- Kennedy, R.A.**, *see* Nafees, W., *TSP 2020 2830-2840*
- Keriven, N.**, Garreau, D., and Poli, I., NEWMA: A New Method for Scalable Model-Free Online Change-Point Detection; *TSP 2020 3515-3528*
- Khalid, Z.**, *see* Aslam, A., *TSP 2020 4568-4582*
- Khalid, Z.**, *see* Nafees, W., *TSP 2020 2830-2840*
- Khalili, A.**, *see* Vahidpour, V., *TSP 2020 3146-3157*
- Khan, U.A.**, *see* Xin, R., *TSP 2020 6255-6271*
- Khanduri, P.**, *see* Zhang, S., *TSP 2020 830-842*
- Khobahi, S.**, and Soltanalian, M., Model-Based Deep Learning for One-Bit Compressive Sensing; *TSP 2020 5292-5307*

- Khong, A.W.H.**, *see* Nguyen, A.H.T., *TSP 2020 1990-2003*
- Kim, C.K.**, Azim, M.T., Singh, A.K., and Park, S., Doppler Shifting Technique for Generating Multi-Frames of Video SAR via Sub-Aperture Signal Processing; *TSP 2020 3990-4001*
- Kim, D.S.**, Measurement of Power Density at Zero Frequency With a Trend Compensation; *TSP 2020 1964-1973*
- Kiraly, F.**, *see* Sabetsarvestani, Z., *TSP 2020 558-572*
- Kliesch, M.**, *see* Roth, I., *TSP 2020 4002-4016*
- Kloosterman, F.**, *see* Wouters, J., *TSP 2020 6240-6254*
- Ko, H.**, and Tsai, J.J.P., Robust and Computationally Efficient Digital IIR Filter Synthesis and Stability Analysis Under Finite Precision Implementations; *TSP 2020 1807-1822*
- Kofidis, E.**, A Tensor-Based Approach to Joint Channel Estimation/Data Detection in Flexible Multicarrier MIMO Systems; *TSP 2020 3179-3193*
- Koike-Akino, T.**, *see* Goukhshtein, M., *TSP 2020 5924-5939*
- Koivunen, V.**, *see* Rajamaki, R., *TSP 2020 6402-6417*
- Koivunen, V.**, *see* Nitzan, E., *TSP 2020 4871-4886*
- Koldovsky, Z.**, *see* Kautsky, V., *TSP 2020 5230-5243*
- Koldovsky, Z.**, *see* Kautsky, V., *TSP 2020 4258-4267*
- Konar, A.**, *see* Ibrahim, M.S., *TSP 2020 1897-1909*
- Kong, D.**, Zheng, X., Zhang, Y., and Jiang, T., Frame Repetition: A Solution to Imaginary Interference Cancellation in FBMC/OQAM Systems; *TSP 2020 1259-1273*
- Kong, L.**, *see* Yu, X., *TSP 2020 3619-3634*
- Kong, L.**, *see* Yi, W., *TSP 2020 1602-1617*
- Kong, L.**, *see* Yi, W., *TSP 2020 241-256*
- Kong, X.**, Du, B., Feng, X., and Luo, J., Unified and Self-Stabilized Parallel Algorithm for Multiple Generalized Eigenpairs Extraction; *TSP 2020 3644-3659*
- Koppel, A.**, *see* Mokhtari, A., *TSP 2020 6287-6302*
- Kotropoulos, C.L.**, *see* Mandanas, F.D., *TSP 2020 1034-1047*
- Kou, K.I.**, *see* Miao, J., *TSP 2020 5617-5631*
- Kovacs, P.**, Fridli, S., and Schipp, F., Generalized Rational Variable Projection With Application in ECG Compression; *TSP 2020 478-492*
- Kozat, S.S.**, *see* Ilhan, F., *TSP 2020 4946-4958*
- Krekovic, M.**, Dokmanic, I., and Vetterli, M., Shapes From Echoes: Uniqueness From Point-to-Plane Distance Matrices; *TSP 2020 2480-2498*
- Krishna, A.K.**, *see* Ernest, T.Z.H., *TSP 2020 3103-3116*
- Krishnamurthy, V.**, Angley, D., Evans, R., and Moran, B., Identifying Cognitive Radars - Inverse Reinforcement Learning Using Revealed Preferences; *TSP 2020 4529-4542*
- Krishnamurthy, V.**, *see* Mattila, R., *TSP 2020 4987-5002*
- Kuh, A.**, *see* Chen, K., *TSP 2020 1515-1528*
- Kumar, A.**, *see* Sahu, N., *TSP 2020 142-154*
- Kumar, C.**, and Rajawat, K., Network Dissensus via Distributed ADMM; *TSP 2020 2287-2301*
- Kumar, S.**, *see* Zhou, R., *TSP 2020 6198-6211*
- Kumari, P.**, Vorobyov, S.A., and Heath, R.W., Adaptive Virtual Waveform Design for Millimeter-Wave Joint Communication-Radar; *TSP 2020 715-730*

## L

- Lai, L.**, *see* Cao, X., *TSP 2020 6011-6025*
- Lai, L.**, *see* Li, F., *TSP 2020 1470-1483*
- Lai, L.**, *see* Liu, G., *TSP 2020 5152-5165*
- Lan, J.**, *see* Zhang, L., *TSP 2020 5107-5121*
- Lan, T.**, Bendory, T., Boumal, N., and Singer, A., Multi-Target Detection With an Arbitrary Spacing Distribution; *TSP 2020 1589-1601*
- Lan, Y.**, *see* Li, B., *TSP 2020 97-112*
- Land, I.**, *see* Condo, C., *TSP 2020 2004-2014*
- Lara, P.**, *see* Silva, T.T.P., *TSP 2020 5882-5893*
- Larsson, E.G.**, *see* Chopra, R., *TSP 2020 3132-3145*
- Lathauwer, L.D.**, *see* Vandecappelle, M., *TSP 2020 4454-4465*
- Lau, V.**, *see* Liu, A., *TSP 2020 605-620*
- Lau, V.**, *see* Zheng, X., *TSP 2020 2598-2612*
- Lau, V.K.N.**, *see* Lian, L., *TSP 2020 6026-6039*
- Lau, V.K.N.**, *see* Chai, S., *TSP 2020 1286-1299*
- Lau, V.K.N.**, *see* Gong, S., *TSP 2020 4903-4918*
- Lawhern, V.J.**, *see* Bohannon, A.W., *TSP 2020 4481-4496*
- Le, T.**, and Ho, K.C., Joint Source and Sensor Localization by Angles of Arrival; *TSP 2020 6521-6534*
- Le, T.**, and Ho, K.C., Algebraic Complete Solution for Joint Source and Sensor Localization Using Time of Flight Measurements; *TSP 2020 1853-1869*
- Le Magoarou, L.**, and Paquelet, S., Channel Estimation: Unified View of Optimal Performance and Pilot Sequences; *TSP 2020 5588-5601*
- Lee, B.**, Lee, N., Shin, W., and Poor, H.V., Blind Interference Alignment With ISI: A New Look at OFDM for  $K$ -User Interference Channels; *TSP 2020 4497-4512*
- Lee, C.**, *see* Qi, J., *TSP 2020 3411-3422*
- Lee, D.**, and Giannakis, G.B., A Variational Bayes Approach to Adaptive Radio Tomography; *TSP 2020 3779-3792*
- Lee, H.**, Pan, Y., and Ueng, Y., A Node-Reliability Based CRC-Aided Successive Cancellation List Polar Decoder Architecture Combined With Post-Processing; *TSP 2020 5954-5967*
- Lee, K.**, *see* Mulletti, S., *TSP 2020 4627-4642*
- Lee, M.**, *see* Chen, B., *TSP 2020 4971-4986*
- Lee, M.**, *see* Chen, B., *TSP 2020 5923*
- Lee, N.**, *see* Lee, B., *TSP 2020 4497-4512*
- Lee, S.**, *see* Paternain, S., *TSP 2020 3486-3499*
- Lei, M.**, *see* Wei, Y., *TSP 2020 6336-6349*
- Leibovitz, G.**, and Giryes, R., Efficient Least Residual Greedy Algorithms for Sparse Recovery; *TSP 2020 3707-3722*
- Lemmin, T.**, *see* Gurel, N.M., *TSP 2020 4268-4282*
- Leplat, V.**, Gillis, N., and Ang, A.M., Blind Audio Source Separation With Minimum-Volume Beta-Divergence NMF; *TSP 2020 3400-3410*
- Leshem, A.**, *see* Antman, A., *TSP 2020 5648-5663*
- Leth, J.**, *see* Eielens, A.A., *TSP 2020 1950-1963*
- Leung, S.**, *see* Yu, X., *TSP 2020 5968-5982*
- Levanen, T.**, *see* Yli-Kaakinen, J., *TSP 2020 1213-1228*
- Li, B.**, *see* Wei, Z., *TSP 2020 6187-6197*
- Li, B.**, Guo, W., Wang, X., Deng, Y., Lan, Y., Zhao, C., and Nallanathan, A., CSI-Independent Non-Linear Signal Detection in Molecular Communications; *TSP 2020 97-112*
- Li, C.**, Li, G., and Varshney, P.K., Distributed Detection of Sparse Signals With Physical Layer Secrecy Constraints: A Falsified Censoring Strategy; *TSP 2020 6040-6054*
- Li, C.**, *see* Liu, Z., *TSP 2020 4407-4421*
- Li, C.**, Li, G., and Varshney, P.K., Distributed Detection of Sparse Stochastic Signals With 1-Bit Data in Tree-Structured Sensor Networks; *TSP 2020 2963-2976*
- Li, C.**, Xie, H., Mengersen, K., Fan, X., Da Xu, R.Y., Sisson, S.A., and Van Huffel, S., Bayesian Nonnegative Matrix Factorization With Dirichlet Process Mixtures; *TSP 2020 3860-3870*
- Li, F.**, Lai, L., and Cui, S., On the Adversarial Robustness of Subspace Learning; *TSP 2020 1470-1483*
- Li, G.**, *see* Xu, X., *TSP 2020 3117-3131*
- Li, G.**, *see* Li, C., *TSP 2020 6040-6054*
- Li, G.**, Xu, X., and Gu, Y., Lower Bound for RIP Constants and Concentration of Sum of Top Order Statistics; *TSP 2020 3169-3178*
- Li, G.**, *see* Wang, Z., *TSP 2020 5178-5187*
- Li, G.**, *see* Li, C., *TSP 2020 2963-2976*
- Li, G.**, *see* Yi, W., *TSP 2020 5204-5218*
- Li, G.Y.**, *see* Chen, K., *TSP 2020 170-180*
- Li, G.Y.**, *see* He, H., *TSP 2020 1702-1715*
- Li, H.**, *see* Wang, B., *TSP 2020 1274-1285*
- Li, H.**, *see* Wang, P., *TSP 2020 793-807*
- Li, H.**, *see* Wang, F., *TSP 2020 466-477*
- Li, H.**, Fang, C., Yin, W., and Lin, Z., Decentralized Accelerated Gradient Methods With Increasing Penalty Parameters; *TSP 2020 4855-4870*
- Li, H.**, *see* Liu, J., *TSP 2020 3022-3032*
- Li, J.**, *see* Yu, X., *TSP 2020 3619-3634*
- Li, J.**, Liao, G., Huang, Y., Zhang, Z., and Nehorai, A., Riemannian Geometric Optimization Methods for Joint Design of Transmit Sequence and Receive Filter on MIMO Radar; *TSP 2020 5602-5616*
- Li, J.**, *see* Liu, J., *TSP 2020 4123-4134*



- Li, J., *see* Xiao, P., *TSP* 2020 5746-5758
- Li, J., *see* Zaimbashi, A., *TSP* 2020 1500-1514
- Li, M., *see* Wang, H., *TSP* 2020 1425-1438
- Li, N., *see* Magnusson, S., *TSP* 2020 6101-6116
- Li, Q., *see* Geng, B., *TSP* 2020 4083-4093
- Li, Q., Heusdens, R., and Christensen, M.G., Privacy-Preserving Distributed Optimization via Subspace Perturbation: A General Framework; *TSP* 2020 5983-5996
- Li, S., *see* Rubaiyat, A.H.M., *TSP* 2020 3312-3324
- Li, S., *see* Yi, W., *TSP* 2020 241-256
- Li, T., Wang, X., Liang, Y., and Pan, Q., On Arithmetic Average Fusion and Its Application for Distributed Multi-Bernoulli Multitarget Tracking; *TSP* 2020 2883-2896
- Li, X., *see* Rambhatla, S., *TSP* 2020 1760-1775
- Li, X., *see* Meng, M., *TSP* 2020 6212-6223
- Li, X., *see* Fang, X., *TSP* 2020 5869-5881
- Li, X., *see* Yi, X., *TSP* 2020 731-746
- Li, X., *see* Zhang, X., *TSP* 2020 5138-5151
- Li, X.R., *see* Tang, M., *TSP* 2020 2045-2060
- Li, X.R., *see* Rezaie, R., *TSP* 2020 155-169
- Li, Y., *see* Xie, Y., *TSP* 2020 3824-3833
- Li, Y., and Sun, W., Random Phaseless Sampling for Causal Signals in Shift-Invariant Spaces: A Zero Distribution Perspective; *TSP* 2020 5473-5486
- Li, Y., *see* Yan, Z., *TSP* 2020 2613-2628
- Li, Y., *see* Dong, L., *TSP* 2020 4513-4528
- Li, Y., *see* Zhang, J., *TSP* 2020 621-633
- Li, Y., *see* He, Y., *TSP* 2020 181-195
- Li, Y., *see* Ma, J., *TSP* 2020 4148-4162
- Li, Z., *see* Wang, S.L., *TSP* 2020 885-900
- Lian, L., *see* Liu, A., *TSP* 2020 605-620
- Lian, L., and Lau, V.K.N., Configuration Optimization and Channel Estimation in Hybrid Beamforming mmWave Systems With Channel Support Side Information; *TSP* 2020 6026-6039
- Liang, J., *see* Fan, W., *TSP* 2020 1075-1090
- Liang, J., *see* Dutta, A., *TSP* 2020 6128-6141
- Liang, S., *see* Liu, T., *TSP* 2020 2015-2030
- Liang, W., *see* Hsieh, S., *TSP* 2020 3500-3514
- Liang, Y., *see* Li, T., *TSP* 2020 2883-2896
- Liang, Y., *see* Fu, H., *TSP* 2020 3225-3235
- Liao, B., *see* Xiao, P., *TSP* 2020 5746-5758
- Liao, G., *see* Li, J., *TSP* 2020 5602-5616
- Liao, G., *see* Xu, J., *TSP* 2020 2770-2783
- Lim, S.H., *see* Yoo, J.H., *TSP* 2020 4135-4147
- Lin, H., Chen, P., Han, Y.S., and Varshney, P.K., Minimum Byzantine Effort for Blinding Distributed Detection in Wireless Sensor Networks; *TSP* 2020 647-661
- Lin, H., and Sun, S., Optimal Sequential Estimation for Asynchronous Sampling Discrete-Time Systems; *TSP* 2020 6117-6127
- Lin, J., and Michailidis, G., System Identification of High-Dimensional Linear Dynamical Systems With Serially Correlated Output Noise Components; *TSP* 2020 5573-5587
- Lin, Z., *see* Li, H., *TSP* 2020 4855-4870
- Ling, C., *see* Lyu, S., *TSP* 2020 257-269
- Ling, C., *see* Lyu, S., *TSP* 2020 6380-6393
- Ling, Q., *see* Yuan, K., *TSP* 2020 4466-4480
- Ling, Q., *see* Wu, Z., *TSP* 2020 4583-4596
- Liu, A., Lian, L., Lau, V., Liu, G., and Zhao, M., Cloud-Assisted Cooperative Localization for Vehicle Platoons: A Turbo Approach; *TSP* 2020 605-620
- Liu, A., *see* Zheng, X., *TSP* 2020 2598-2612
- Liu, D., Chen, B., Chin, T., and Rutten, M.G., Topological Sweep for Multi-Target Detection of Geostationary Space Objects; *TSP* 2020 5166-5177
- Liu, G., *see* Liu, A., *TSP* 2020 605-620
- Liu, G., *see* Wang, Y., *TSP* 2020 917-930
- Liu, G., and Lai, L., Action-Manipulation Attacks Against Stochastic Bandits: Attacks and Defense; *TSP* 2020 5152-5165
- Liu, H., *see* Yan, J., *TSP* 2020 4055-4068
- Liu, H., *see* Yang, D., *TSP* 2020 4368-4381
- Liu, H., *see* Guo, D., *TSP* 2020 5795-5809
- Liu, J., Chen, J., Li, J., and Liu, W., Persymmetric Adaptive Detection of Distributed Targets With Unknown Steering Vectors; *TSP* 2020 4123-4134
- Liu, J., Massaro, D., Orlando, D., and Farina, A., Radar Adaptive Detection Architectures for Heterogeneous Environments; *TSP* 2020 4307-4319
- Liu, J., *see* Zhou, R., *TSP* 2020 6198-6211
- Liu, J., Feng, Y., Liu, W., Orlando, D., and Li, H., Training Data Assisted Anomaly Detection of Multi-Pixel Targets In Hyperspectral Imagery; *TSP* 2020 3022-3032
- Liu, L., Peng, G., Wang, P., Zhou, S., Wei, Q., Yin, S., and Wei, S., Energy- and Area-Efficient Recursive-Conjugate-Gradient-Based MMSE Detector for Massive MIMO Systems; *TSP* 2020 573-588
- Liu, L., *see* Rodriguez Sanchez, J., *TSP* 2020 687-700
- Liu, Q., *see* Wei, X., *TSP* 2020 2302-2315
- Liu, T., *see* Cen, S., *TSP* 2020 3976-3989
- Liu, T., *see* Markovsky, I., *TSP* 2020 3064-3073
- Liu, T., Chen, S., Liang, S., Gan, S., and Harris, C.J., Fast Adaptive Gradient RBF Networks For Online Learning of Nonstationary Time Series; *TSP* 2020 2015-2030
- Liu, W., *see* Wang, Y., *TSP* 2020 917-930
- Liu, W., *see* Liu, J., *TSP* 2020 4123-4134
- Liu, W., *see* Shen, Q., *TSP* 2020 6493-6508
- Liu, W., *see* Liu, J., *TSP* 2020 3022-3032
- Liu, X., Huang, T., Shlezinger, N., Liu, Y., Zhou, J., and Eldar, Y.C., Joint Transmit Beamforming for Multiuser MIMO Communications and MIMO Radar; *TSP* 2020 3929-3944
- Liu, X., *see* Shi, J., *TSP* 2020 4041-4054
- Liu, X., *see* Jiang, X., *TSP* 2020 5664-5679
- Liu, X., *see* Douik, A., *TSP* 2020 284-299
- Liu, X., *see* Shi, J., *TSP* 2020 3280-3295
- Liu, Y., *see* Liu, X., *TSP* 2020 3929-3944
- Liu, Y., *see* Huang, T., *TSP* 2020 5706-5721
- Liu, Y., *see* You, K., *TSP* 2020 4194-4209
- Liu, Y., *see* Huang, T., *TSP* 2020 3423-3438
- Liu, Y., *see* Shen, Q., *TSP* 2020 6493-6508
- Liu, Y., *see* Zhang, X., *TSP* 2020 5138-5151
- Liu, Z., Li, C., Zhuang, W., Song, Y., and Lyu, W., Sparse Robust Learning From Flipped Bits; *TSP* 2020 4407-4421
- Liu, Z., *see* Das, S., *TSP* 2020 5546-5558
- Liu, Z., Yang, P., Guan, Y.L., and Xiao, P., Cross Z-Complementary Pairs for Optimal Training in Spatial Modulation Over Frequency Selective Channels; *TSP* 2020 1529-1543
- Lops, M., *see* Grossi, E., *TSP* 2020 1544-1557
- Lotfi, M., and Vidyasagar, M., Compressed Sensing Using Binary Matrices of Nearly Optimal Dimensions; *TSP* 2020 3008-3021
- Lou, Y., *see* Wang, C., *TSP* 2020 2660-2669
- Loyka, S., *see* Dong, L., *TSP* 2020 4513-4528
- Lu, C., *see* Hsieh, S., *TSP* 2020 3500-3514
- Lu, G., *see* Fan, W., *TSP* 2020 1075-1090
- Lu, P., *see* Wei, H., *TSP* 2020 2105-2113
- Lu, Q., Ioannidis, V.N., and Giannakis, G.B., Graph-Adaptive Semi-Supervised Tracking of Dynamic Processes Over Switching Network Modes; *TSP* 2020 2586-2597
- Lu, S., Tsaknakis, I., Hong, M., and Chen, Y., Hybrid Block Successive Approximation for One-Sided Non-Convex Min-Max Problems: Algorithms and Applications; *TSP* 2020 3676-3691
- Luciani, X., *see* Andre, R., *TSP* 2020 1716-1727
- Luo, J., *see* Kong, X., *TSP* 2020 3644-3659
- Luo, Y., and Wang, Y., A Statistical Time-Frequency Model for Non-stationary Time Series Analysis; *TSP* 2020 4757-4772
- Luo, Z., *see* Yang, Y., *TSP* 2020 947-961
- Luo, Z., *see* Huang, Y., *TSP* 2020 2244-2255
- Luo, Z.T., *see* Yin, F., *TSP* 2020 5260-5275
- Lyu, Q., and Fu, X., Nonlinear Multiview Analysis: Identifiability and Neural Network-Assisted Implementation; *TSP* 2020 2697-2712

- Lyu, S.**, Wen, J., Weng, J., and Ling, C., On Low-Complexity Lattice Reduction Algorithms for Large-Scale MIMO Detection: The Blessing of Sequential Reduction; *TSP 2020 257-269*
- Lyu, S.**, Porter, C., and Ling, C., Lattice Reduction Over Imaginary Quadratic Fields; *TSP 2020 6380-6393*
- Lyu, W.**, see Liu, Z., *TSP 2020 4407-4421*

## M

- Ma, D.**, see Huang, T., *TSP 2020 5706-5721*
- Ma, H.**, see Yang, C., *TSP 2020 5244-5259*
- Ma, J.**, see Hu, C., *TSP 2020 1673-1687*
- Ma, J.**, Tao, R., Li, Y., and Kang, X., Fractional Spectrum Analysis for Nonuniform Sampling in the Presence of Clock Jitter and Timing Offset; *TSP 2020 4148-4162*
- Ma, S.**, see Xing, C., *TSP 2020 1618-1634*
- Ma, W.**, see Wu, R., *TSP 2020 1728-1743*
- Ma, X.**, see Qi, J., *TSP 2020 3411-3422*
- Madhukumar, A.S.**, see Ernest, T.Z.H., *TSP 2020 3103-3116*
- Magnusson, S.**, Shokri-Ghadikolaei, H., and Li, N., On Maintaining Linear Convergence of Distributed Learning and Optimization Under Limited Communication; *TSP 2020 6101-6116*
- Maior, A.D.**, see Aubry, A., *TSP 2020 6649-6664*
- Majhi, S.**, see Das, S., *TSP 2020 5519-5532*
- Majhi, S.**, see Das, S., *TSP 2020 5546-5558*
- Malik, S.**, Wung, J., Atkins, J., and Naik, D., Double-Talk Robust Multichannel Acoustic Echo Cancellation Using Least-Squares MIMO Adaptive Filtering: Transversal, Array, and Lattice Forms; *TSP 2020 4887-4902*
- Malik, S.**, see Wung, J., *TSP 2020 3559-3574*
- Mandanias, F.D.**, and Kotropoulos, C.L., Subspace Learning and Feature Selection via Orthogonal Mapping; *TSP 2020 1034-1047*
- Mandic, D.P.**, see Xiang, M., *TSP 2020 65-80*
- Mandic, D.P.**, see Menguc, E.C., *TSP 2020 5914-5922*
- Manton, J.H.**, see Mclean, C., *TSP 2020 2114-2127*
- Mao, X.**, Yuan, K., Hu, Y., Gu, Y., Sayed, A.H., and Yin, W., Walkman: A Communication-Efficient Random-Walk Algorithm for Decentralized Optimization; *TSP 2020 2513-2528*
- Marano, S.**, see Wang, G., *TSP 2020 6607-6620*
- Marano, S.**, see Braca, P., *TSP 2020 359-373*
- Marano, S.**, see Aubry, A., *TSP 2020 6649-6664*
- Marano, S.**, and Willett, P., Making Decisions by Unlabeled Bits; *TSP 2020 2935-2947*
- Markovsky, I.**, Liu, T., and Takeda, A., Data-Driven Structured Noise Filtering via Common Dynamics Estimation; *TSP 2020 3064-3073*
- Marnissi, Y.**, Chouzenoux, E., Benazza-Benyahia, A., and Pesquet, J., Majorize-Minimize Adapted Metropolis-Hastings Algorithm; *TSP 2020 2356-2369*
- Marques, A.G.**, see Zhu, Y., *TSP 2020 3049-3063*
- Marques, A.G.**, see Ruiz, L., *TSP 2020 127-141*
- Marques, A.G.**, see Ioannidis, V.N., *TSP 2020 6535-6546*
- Martin-Clemente, R.**, and Zarzoso, V., LDA via L1-PCA of Whitenened Data; *TSP 2020 225-240*
- Martino, L.**, see Aubry, A., *TSP 2020 2231-2243*
- Maskell, S.**, see Garcia-Fernandez, A.F., *TSP 2020 1300-1314*
- Massaro, D.**, see Liu, J., *TSP 2020 4307-4319*
- Mastrorarde, N.**, see Sharma, N., *TSP 2020 1409-1424*
- Matamoros, J.**, see Calvo-Fullana, M., *TSP 2020 3961-3975*
- Mathar, R.**, see Bangun, A., *TSP 2020 1439-1454*
- Matthiesen, B.**, Hellings, C., Jorswieck, E.A., and Utschick, W., Mixed Monotonic Programming for Fast Global Optimization; *TSP 2020 2529-2544*
- Matthiesen, B.**, Zappone, A., Besser, K., Jorswieck, E.A., and Debbah, M., A Globally Optimal Energy-Efficient Power Control Framework and Its Efficient Implementation in Wireless Interference Networks; *TSP 2020 3887-3902*
- Mattila, R.**, Rojas, C.R., Krishnamurthy, V., and Wahlberg, B., Inverse Filtering for Hidden Markov Models With Applications to Counter-Adversarial Autonomous Systems; *TSP 2020 4987-5002*
- Mayo, P.**, see Karakus, O., *TSP 2020 6159-6170*
- McAllister, J.**, see Raurale, S.A., *TSP 2020 2713-2723*
- Mclean, C.**, Pauley, M., and Manton, J.H., Non-Parametric Decomposition of Pulse Pile-Up Under Gaussian Noise With Finite Data Sets; *TSP 2020 2114-2127*
- Meller, M.**, and Stawarski, K., On DoA Estimation for Rotating Arrays Using Stochastic Maximum Likelihood Approach; *TSP 2020 5219-5229*
- Meng, M.**, and Li, X., Distributed Nonlinear Estimation Over Unbalanced Directed Networks; *TSP 2020 6212-6223*
- Meng, N.**, and Zhao, Y., Newton-Step-Based Hard Thresholding Algorithms for Sparse Signal Recovery; *TSP 2020 6594-6606*
- Mengersen, K.**, see Li, C., *TSP 2020 3860-3870*
- Menguc, E.C.**, Acir, N., and Mandic, D.P., Widely Linear Quaternion-Valued Least-Mean Kurtosis Algorithm; *TSP 2020 5914-5922*
- Menon, V.**, Muthukrishnan, G., and Kalyani, S., Subspace Clustering Without Knowing the Number of Clusters: A Parameter Free Approach; *TSP 2020 5047-5062*
- Mertikopoulos, P.**, see Bilenne, O., *TSP 2020 6085-6100*
- Mestre, X.**, and Vallet, P., On the Resolution Probability of Conditional and Unconditional Maximum Likelihood DoA Estimation; *TSP 2020 4656-4671*
- Miao, J.**, and Kou, K.I., Quaternion-Based Bilinear Factor Matrix Norm Minimization for Color Image Inpainting; *TSP 2020 5617-5631*
- Michailidis, G.**, see Bai, P., *TSP 2020 3074-3089*
- Michailidis, G.**, see Lin, J., *TSP 2020 5573-5587*
- Millefiori, L.M.**, see Braca, P., *TSP 2020 359-373*
- Miron, S.**, see Flamant, J., *TSP 2020 1870-1883*
- Mitra, U.**, see Chattopadhyay, A., *TSP 2020 3209-3224*
- Mo, D.**, and Duarte, M.F., Binary Sequence Set Design for Interferer Rejection in Multi-Branch Modulation; *TSP 2020 3769-3778*
- Mohammadi Amiri, M.**, and Gunduz, D., Machine Learning at the Wireless Edge: Distributed Stochastic Gradient Descent Over-the-Air; *TSP 2020 2155-2169*
- Mokhtari, A.**, and Koppel, A., High-Dimensional Nonconvex Stochastic Optimization by Doubly Stochastic Successive Convex Approximation; *TSP 2020 6287-6302*
- Molaei, A.M.**, Zakeri, B., and Hosseini Andargoli, S.M., Components Separation Algorithm for Localization and Classification of Mixed Near-Field and Far-Field Sources in Multipath Propagation; *TSP 2020 404-419*
- Monga, V.**, see Yu, X., *TSP 2020 1974-1989*
- Monich, U.J.**, see Boche, H., *TSP 2020 6350-6365*
- Monich, U.J.**, see Boche, H., *TSP 2020 532-547*
- Montorsi, F.**, see Vitetta, G.M., *TSP 2020 1002-1020*
- Moran, B.**, see Krishnamurthy, V., *TSP 2020 4529-4542*
- Moreau, E.**, see Andre, R., *TSP 2020 1716-1727*
- Morii, M.**, see Takano, Y., *TSP 2020 300-313*
- Moura, J.M.F.**, see Domingos, J., *TSP 2020 4422-4437*
- Mukherjee, A.**, see Mukhopadhyay, S., *TSP 2020 2370-2385*
- Mukhopadhyay, S.**, and Mukherjee, A., ImdLMS: An Imputation Based LMS Algorithm for Linear System Identification With Missing Input Data; *TSP 2020 2370-2385*
- Mulletti, S.**, Lee, K., and Eldar, Y.C., Identifiability Conditions for Compressive Multichannel Blind Deconvolution; *TSP 2020 4627-4642*
- Murthy, C.R.**, see Joseph, G., *TSP 2020 343-358*
- Murthy, C.R.**, see Chopra, R., *TSP 2020 3132-3145*
- Murthy, C.R.**, see Arunkumar, K.P., *TSP 2020 2435-2448*
- Muthukrishnan, G.**, see Menon, V., *TSP 2020 5047-5062*

## N

- Nafees, W.**, Khalid, Z., and Kennedy, R.A., Differential and Weighted Slepian Concentration Problems on the Sphere; *TSP 2020 2830-2840*
- Naik, D.**, see Malik, S., *TSP 2020 4887-4902*
- Naik, D.**, see Wung, J., *TSP 2020 3559-3574*
- Nakatsukasa, Y.**, see Bai, Y., *TSP 2020 2419-2434*
- Nakhai, M.R.**, see Sun, Z., *TSP 2020 3090-3102*
- Nallanathan, A.**, see Li, B., *TSP 2020 97-112*
- Nallanathan, A.**, see Zhou, G., *TSP 2020 5092-5106*
- Nallanathan, A.**, see Zhou, G., *TSP 2020 3236-3251*
- Napolitano, A.**, An Interference-Tolerant Algorithm for Wide-Band Moving Source Passive Localization; *TSP 2020 3471-3485*

- Nassif, R.**, Vlaski, S., and Sayed, A.H., Adaptation and Learning Over Networks Under Subspace Constraints—Part II: Performance Analysis; *TSP 2020 2948-2962*
- Nassif, R.**, Vlaski, S., and Sayed, A.H., Adaptation and Learning Over Networks Under Subspace Constraints—Part I: Stability Analysis; *TSP 2020 1346-1360*
- Naveed, K.**, Rehman, N.u., Wavelet Based Multivariate Signal Denoising Using Mahalanobis Distance and EDF Statistics; *TSP 2020 5997-6010*
- Nayebi, M.M.**, see Noroozi, A., *TSP 2020 2545-2557*
- Nehorai, A.**, see Li, J., *TSP 2020 5602-5616*
- Nehorai, A.**, see Xi, F., *TSP 2020 1048-1063*
- Neinavaie, M.**, Derakhtian, M., and Vorobyov, S.A., Lossless Dimension Reduction for Integer Least Squares With Application to Sphere Decoding; *TSP 2020 6547-6561*
- Nevat, I.**, see Xiang, Q., *TSP 2020 4336-4351*
- Ng, D.W.K.**, see Shao, X., *TSP 2020 6578-6593*
- Ng, D.W.K.**, see Qi, Q., *TSP 2020 211-224*
- Nguyen, A.H.T.**, Reju, V.G., and Khong, A.W.H., Directional Sparse Filtering for Blind Estimation of Under-Determined Complex-Valued Mixing Matrices; *TSP 2020 1990-2003*
- Nguyen, H.T.**, Tuan, H.D., Duong, T.Q., Poor, H.V., and Hwang, W., Nonsmooth Optimization Algorithms for Multicast Beamforming in Content-Centric Fog Radio Access Networks; *TSP 2020 1455-1469*
- Nguyen, N.H.**, see Pang, F., *TSP 2020 3385-3399*
- Nguyen, N.H.**, see Badrials, L., *TSP 2020 4672-4687*
- Ni, W.**, see Yang, D., *TSP 2020 4368-4381*
- Ni, Y.**, see Zhang, Q., *TSP 2020 3450-3460*
- Nichols, J.M.**, see Rubaiyat, A.H.M., *TSP 2020 3312-3324*
- Ninness, B.**, see Eielsen, A.A., *TSP 2020 1950-1963*
- Nitzan, E.**, Halme, T., and Koivunen, V., Bayesian Methods for Multiple Change-Point Detection With Reduced Communication; *TSP 2020 4871-4886*
- Noroozi, A.**, Amiri, R., Nayebi, M.M., and Farina, A., Efficient Closed-Form Solution for Moving Target Localization in MIMO Radars With Minimum Number of Antennas; *TSP 2020 2545-2557*
- Nosrati, H.**, Aboutanios, E., and Smith, D., Multi-Stage Antenna Selection for Adaptive Beamforming in MIMO Radar; *TSP 2020 1374-1389*
- Nutalapati, M.K.**, Bedi, A.S., Rajawat, K., and Coupechoux, M., Online Trajectory Optimization Using Inexact Gradient Feedback for Time-Varying Environments; *TSP 2020 4824-4838*
- O**
- O'Rourke, S.M.**, Setlur, P., Rangaswamy, M., and Swindlehurst, A.L., Quadratic Semidefinite Programming for Waveform-Constrained Joint Filter-Signal Design in STAP; *TSP 2020 1744-1759*
- O'Shaughnessy, M.R.**, Davenport, M.A., and Rozell, C.J., Sparse Bayesian Learning With Dynamic Filtering for Inference of Time-Varying Sparse Signals; *TSP 2020 388-403*
- Ogawa, T.**, see Akamatsu, Y., *TSP 2020 5769-5781*
- Ohmori, H.**, see Zuo, W., *TSP 2020 4713-4726*
- Oliveira, F.D.V.R.**, see Silva, T.T.P., *TSP 2020 5882-5893*
- Orcioni, S.**, see Carini, A., *TSP 2020 5308-5321*
- Orlando, D.**, see Liu, J., *TSP 2020 4307-4319*
- Orlando, D.**, see Liu, J., *TSP 2020 3022-3032*
- Oselio, B.**, see Sekeh, S.Y., *TSP 2020 3793-3807*
- Osgood, B.**, see Siripuram, A., *TSP 2020 4773-4781*
- Ottersten, B.**, see Yang, Y., *TSP 2020 947-961*
- Ottersten, B.**, see Sedighi, S., *TSP 2020 589-604*
- Ottersten, B.**, see Arora, A., *TSP 2020 701-714*
- Ottersten, B.**, see Haqiqatnejad, A., *TSP 2020 1837-1852*
- Oymak, S.**, see Sattar, Y., *TSP 2020 818-829*
- Ozdaglar, A.E.**, see Wai, H., *TSP 2020 436-451*
- P**
- Pakrooh, P.**, see Butler, R.W., *TSP 2020 2925-2934*
- Palin, A.**, see Yli-Kaakinen, J., *TSP 2020 1213-1228*
- Pallotta, L.**, see Aubry, A., *TSP 2020 634-646*
- Palomar, D.P.**, see Zhou, R., *TSP 2020 4030-4040*
- Palomar, D.P.**, see Zhou, R., *TSP 2020 6198-6211*
- Pan, C.**, see Zhou, G., *TSP 2020 5092-5106*
- Pan, C.**, see Zhou, G., *TSP 2020 3236-3251*
- Pan, J.**, Sun, M., Wang, Y., and Zhang, X., An Enhanced Spatial Smoothing Technique With ESPRIT Algorithm for Direction of Arrival Estimation in Coherent Scenarios; *TSP 2020 3635-3643*
- Pan, L.**, see Yin, F., *TSP 2020 5260-5275*
- Pan, Q.**, see Li, T., *TSP 2020 2883-2896*
- Pan, Y.**, see Lee, H., *TSP 2020 5954-5967*
- Pang, F.**, Dogancay, K., Nguyen, N.H., and Zhang, Q., AOA Pseudolinear Target Motion Analysis in the Presence of Sensor Location Errors; *TSP 2020 3385-3399*
- Pappas, G.J.**, see Kalogerias, D.S., *TSP 2020 6272-6286*
- Paraquet, S.**, see Le Magoarou, L., *TSP 2020 5588-5601*
- Parampalli, U.**, see Das, S., *TSP 2020 5546-5558*
- Park, H.**, see Cho, B.J., *TSP 2020 5188-5203*
- Park, S.**, see Kim, C.K., *TSP 2020 3990-4001*
- Pascal, F.**, see Fortunati, S., *TSP 2020 5003-5015*
- Paternain, S.**, Lee, S., Zavlanos, M.M., and Ribeiro, A., Distributed Constrained Online Learning; *TSP 2020 3486-3499*
- Paternain, S.**, see Peifer, M., *TSP 2020 2031-2044*
- Patrinou, P.**, see Wouters, J., *TSP 2020 6240-6254*
- Pauley, M.**, see Mclean, C., *TSP 2020 2114-2127*
- Pei, S.**, and Chang, K., Two Dimensional Efficient Multiplier-Less Structures of Möbius Function for Ramanujan Filter Banks; *TSP 2020 5079-5091*
- Pei, S.**, see Hsieh, S., *TSP 2020 3500-3514*
- Peifer, M.**, Chamon, L.F.O., Paternain, S., and Ribeiro, A., Sparse Multiresolution Representations With Adaptive Kernels; *TSP 2020 2031-2044*
- Peng, G.**, see Liu, L., *TSP 2020 573-588*
- Peng, Q.**, see Bai, G., *TSP 2020 4959-4970*
- Peng, T.**, see You, K., *TSP 2020 4194-4209*
- Pesavento, M.**, see Yang, Y., *TSP 2020 947-961*
- Pesavento, M.**, see Trinh-Hoang, M., *TSP 2020 3194-3208*
- Pesquet, J.**, see Marnissi, Y., *TSP 2020 2356-2369*
- Pesquet, J.**, see Cherni, A., *TSP 2020 6070-6084*
- Peters, G.W.**, see Xiang, Q., *TSP 2020 4336-4351*
- Pichevar, R.**, see Wung, J., *TSP 2020 3559-3574*
- Poli, I.**, see Keriven, N., *TSP 2020 3515-3528*
- Poor, H.V.**, see Chen, J., *TSP 2020 1823-1836*
- Poor, H.V.**, see Dytso, A., *TSP 2020 5894-5903*
- Poor, H.V.**, see Nguyen, H.T., *TSP 2020 1455-1469*
- Poor, H.V.**, see Boche, H., *TSP 2020 6224-6239*
- Poor, H.V.**, see Cheng, L., *TSP 2020 1792-1806*
- Poor, H.V.**, see Xing, C., *TSP 2020 1618-1634*
- Poor, H.V.**, see Boche, H., *TSP 2020 3754-3768*
- Poor, H.V.**, see Lee, B., *TSP 2020 4497-4512*
- Porter, C.**, see Lyu, S., *TSP 2020 6380-6393*
- Pradhan, H.**, Budhiraja, R., and Rajawat, K., Robust Transceiver Design for AF Asymmetric Two-Way MIMO Relaying; *TSP 2020 5488-5503*
- Prakash, C.**, see Vasavada, Y., *TSP 2020 3723-3737*
- Prevost, C.**, Usevich, K., Comon, P., and Brie, D., Hyperspectral Super-Resolution With Coupled Tucker Approximation: Recoverability and SVD-Based Algorithms; *TSP 2020 931-946*
- Principe, J.C.**, see Qin, Z., *TSP 2020 2724-2738*
- Pu, W.**, see Yan, J., *TSP 2020 4055-4068*
- Puschel, M.**, see Gurel, N.M., *TSP 2020 4268-4282*
- Q**
- Qi, C.**, see Chen, K., *TSP 2020 170-180*
- Qi, J.**, Du, J., Siniscalchi, S.M., Ma, X., and Lee, C., Analyzing Upper Bounds on Mean Absolute Errors for Deep Neural Network-Based Vector-to-Vector Regression; *TSP 2020 3411-3422*
- Qi, Q.**, Chen, X., and Ng, D.W.K., Robust Beamforming for NOMA-Based Cellular Massive IoT With SWIPT; *TSP 2020 211-224*

**P**

- Pakrooh, P.**, see Butler, R.W., *TSP 2020 2925-2934*
- Palin, A.**, see Yli-Kaakinen, J., *TSP 2020 1213-1228*

- Qian, G.**, Wang, S., and Iu, H.H.C., Maximum Total Complex Correntropy for Adaptive Filter; *TSP 2020 978-989*
- Qian, X.**, see Zhao, G., *TSP 2020 3849-3859*
- Qin, J.**, Zhu, Y., and Fu, W., Distributed Clustering Algorithm in Sensor Networks via Normalized Information Measures; *TSP 2020 3266-3279*
- Qin, J.**, see He, Y., *TSP 2020 181-195*
- Qin, Z.**, Chen, B., Zheng, N., and Principe, J.C., Augmented Space Linear Models; *TSP 2020 2724-2738*
- Quach, T.**, see Field, R., *TSP 2020 6394-6401*

## R

- Radnosrati, K.**, Hendeby, G., and Gustafsson, F., Exploring Positive Noise in Estimation Theory; *TSP 2020 3590-3602*
- Raghavan, R.S.**, A Generalized Version of ACE and Performance Analysis; *TSP 2020 2574-2585*
- Rahimi, Y.**, see Wang, C., *TSP 2020 2660-2669*
- Rahmani, M.**, Beckus, A., Karimian, A., and Atia, G.K., Scalable and Robust Community Detection With Randomized Sketching; *TSP 2020 962-977*
- Rahmani, M.**, see Abolhasani, M., *TSP 2020 808-817*
- Rahmathullah, A.S.**, see Garcia-Fernandez, A.F., *TSP 2020 3917-3928*
- Rajamaki, R.**, Chepuri, S.P., and Koivunen, V., Hybrid Beamforming for Active Sensing Using Sparse Arrays; *TSP 2020 6402-6417*
- Rajawat, K.**, see Pradhan, H., *TSP 2020 5488-5503*
- Rajawat, K.**, see Kumar, C., *TSP 2020 2287-2301*
- Rajawat, K.**, see Nutalapati, M.K., *TSP 2020 4824-4838*
- Rambhatla, S.**, Li, X., Ren, J., and Haupt, J., A Dictionary-Based Generalization of Robust PCA With Applications to Target Localization in Hyperspectral Imaging; *TSP 2020 1760-1775*
- Ramirez, D.**, Santamaria, I., Scharf, L.L., and Van Vaerenbergh, S., Multi-Channel Factor Analysis With Common and Unique Factors; *TSP 2020 113-126*
- Ramirez, D.**, see Santamaria, I., *TSP 2020 6432-6443*
- Ramirez, D.**, see Horstmann, S., *TSP 2020 2340-2355*
- Rangaswamy, M.**, see Geng, B., *TSP 2020 1091-1104*
- Rangaswamy, M.**, see O'Rourke, S.M., *TSP 2020 1744-1759*
- Rao, B.S.M.R.**, see Sedighi, S., *TSP 2020 589-604*
- Rao, B.S.M.R.**, see Arora, A., *TSP 2020 701-714*
- Rastegarnia, A.**, see Vahidpour, V., *TSP 2020 3146-3157*
- Ratnam, V.V.**, Performance of Analog Beamforming Systems With Optimized Phase Noise Compensation; *TSP 2020 5334-5348*
- Raurale, S.A.**, McAllister, J., and del Rincon, J.M., Real-Time Embedded EMG Signal Analysis for Wrist-Hand Pose Identification; *TSP 2020 2713-2723*
- Reddy, A.S.**, see Shah, S.B., *TSP 2020 1229-1242*
- Rehman, N.u.**, see Naveed, K., *TSP 2020 5997-6010*
- Reju, V.G.**, see Nguyen, A.H.T., *TSP 2020 1990-2003*
- Ren, H.**, see Zhou, G., *TSP 2020 5092-5106*
- Ren, H.**, see Zhou, G., *TSP 2020 3236-3251*
- Ren, J.**, see Rambhatla, S., *TSP 2020 1760-1775*
- Ren, J.**, and Haupt, J., A Provably Communication-Efficient Asynchronous Distributed Inference Method for Convex and Nonconvex Problems; *TSP 2020 3325-3340*
- Renaux, A.**, see Fortunati, S., *TSP 2020 5003-5015*
- Renfors, M.**, see Yli-Kaakinen, J., *TSP 2020 1213-1228*
- Renna, F.**, see Sabetsarvestani, Z., *TSP 2020 558-572*
- Renton, C.**, see Bartlett, N.J., *TSP 2020 2404-2418*
- Rey-Otero, I.**, Sulam, J., and Elad, M., Variations on the Convolutional Sparse Coding Model; *TSP 2020 519-528*
- Rezaie, R.**, and Li, X.R., Gaussian Conditionally Markov Sequences: Dynamic Models and Representations of Reciprocal and Other Classes; *TSP 2020 155-169*
- Ribeiro, A.**, see Chamon, L.F.O., *TSP 2020 2449-2463*
- Ribeiro, A.**, see Paternain, S., *TSP 2020 3486-3499*
- Ribeiro, A.**, see Kalogerias, D.S., *TSP 2020 6272-6286*
- Ribeiro, A.**, see Eisen, M., *TSP 2020 2977-2991*
- Ribeiro, A.**, see Peifer, M., *TSP 2020 2031-2044*
- Ribeiro, A.**, see Ruiz, L., *TSP 2020 127-141*

- Ribeiro, A.**, see Gama, F., *TSP 2020 5680-5695*
- Ribeiro, A.**, see Calvo-Fullana, M., *TSP 2020 3961-3975*
- Ribeiro, A.**, see Ruiz, L., *TSP 2020 6303-6318*
- Ricci, G.**, see Coluccia, A., *TSP 2020 3903-3916*
- Richard, C.**, see Jin, D., *TSP 2020 2087-2104*
- Richard, C.**, see Jin, D., *TSP 2020 6319-6335*
- Richtarik, P.**, see Dutta, A., *TSP 2020 6128-6141*
- Ristic, B.**, see Arulampalam, S., *TSP 2020 6681-6695*
- Roddenberry, T.M.**, Schaub, M.T., Wai, H., and Segarra, S., Exact Blind Community Detection From Signals on Multiple Graphs; *TSP 2020 5016-5030*
- Rodrigues, M.**, see Sabetsarvestani, Z., *TSP 2020 558-572*
- Rodriguez Sanchez, J.**, Rusek, F., Edfors, O., Sarajlic, M., and Liu, L., Decentralized Massive MIMO Processing Exploring Daisy-Chain Architecture and Recursive Algorithms; *TSP 2020 687-700*
- Rohde, G.K.**, see Rubaiyat, A.H.M., *TSP 2020 3312-3324*
- Rojas, C.R.**, see Mattila, R., *TSP 2020 4987-5002*
- Rong, Y.**, Aubry, A., De Maio, A., and Tang, M., Diffuse Multipath Exploitation for Adaptive Detection of Range Distributed Targets; *TSP 2020 1197-1212*
- Rong, Y.**, see Tang, M., *TSP 2020 2045-2060*
- Rosamilia, M.**, see Aubry, A., *TSP 2020 6649-6664*
- Roth, I.**, Kliesch, M., Flinth, A., Wunder, G., and Eisert, J., Reliable Recovery of Hierarchically Sparse Signals for Gaussian and Kronecker Product Measurements; *TSP 2020 4002-4016*
- Routtenberg, T.**, see Harel, N., *TSP 2020 1152-1167*
- Rozell, C.J.**, see O'Shaughnessy, M.R., *TSP 2020 388-403*
- Rubaiyat, A.H.M.**, Hallam, K.M., Nichols, J.M., Hutchinson, M.N., Li, S., and Rohde, G.K., Parametric Signal Estimation Using the Cumulative Distribution Transform; *TSP 2020 3312-3324*
- Ruiz, L.**, Gama, F., Marques, A.G., and Ribeiro, A., Invariance-Preserving Localized Activation Functions for Graph Neural Networks; *TSP 2020 127-141*
- Ruiz, L.**, Gama, F., and Ribeiro, A., Gated Graph Recurrent Neural Networks; *TSP 2020 6303-6318*
- Rupasinghe, A.**, and Babadi, B., Multitaper Analysis of Semi-Stationary Spectra From Multivariate Neuronal Spiking Observations; *TSP 2020 4382-4396*
- Rusek, F.**, see Rodriguez Sanchez, J., *TSP 2020 687-700*
- Rutten, M.G.**, see Liu, D., *TSP 2020 5166-5177*

## S

- Sabach, S.**, see Gur, E., *TSP 2020 6418-6431*
- Sabetsarvestani, Z.**, Renna, F., Kiraly, F., and Rodrigues, M., Source Separation With Side Information Based on Gaussian Mixture Models With Application in Art Investigation; *TSP 2020 558-572*
- Sadeghi, M.**, Behnia, F., and Amiri, R., Optimal Sensor Placement for 2-D Range-Only Target Localization in Constrained Sensor Geometry; *TSP 2020 2316-2327*
- Safikhani, A.**, see Bai, P., *TSP 2020 3074-3089*
- Sahu, N.**, Babu, P., Kumar, A., and Bahl, R., A Novel Algorithm for Optimal Placement of Multiple Inertial Sensors to Improve the Sensing Accuracy; *TSP 2020 142-154*
- Salaun, L.**, Coupechoux, M., and Chen, C.S., Joint Subcarrier and Power Allocation in NOMA: Optimal and Approximate Algorithms; *TSP 2020 2215-2230*
- Salmani, M.**, and Davidson, T.N., Energy-Optimal Multiple Access Computation Offloading: Signalling Structure and Efficient Communication Resource Allocation; *TSP 2020 1646-1661*
- Sanei, S.**, see Vahidpour, V., *TSP 2020 3146-3157*
- Sanguinetti, L.**, see Fortunati, S., *TSP 2020 859-871*
- Sano, A.**, see Zuo, W., *TSP 2020 4713-4726*
- Santamaria, I.**, see Ramirez, D., *TSP 2020 113-126*
- Santamaria, I.**, Scharf, L.L., and Ramirez, D., Scale-Invariant Subspace Detectors Based on First- and Second-Order Statistical Models; *TSP 2020 6432-6443*
- Sapiro, G.**, see Giryes, R., *TSP 2020 529-531*
- Sarajlic, M.**, see Rodriguez Sanchez, J., *TSP 2020 687-700*
- Sardellitti, S.**, see Di Lorenzo, P., *TSP 2020 2061-2076*
- Sardellitti, S.**, see Barbarossa, S., *TSP 2020 2992-3007*

- Sarvepalli, P.**, *see* Jain, A., *TSP* 2020 1331-1345
- Sarwate, A.D.**, *see* Ghassemi, M., *TSP* 2020 33-48
- Sattar, Y.**, and Oymak, S., Quickly Finding the Best Linear Model in High Dimensions via Projected Gradient Descent; *TSP* 2020 818-829
- Sayed, A.H.**, *see* Nassif, R., *TSP* 2020 2948-2962
- Sayed, A.H.**, *see* Mao, X., *TSP* 2020 2513-2528
- Sayed, A.H.**, *see* Ying, B., *TSP* 2020 1390-1408
- Sayed, A.H.**, *see* Yuan, K., *TSP* 2020 4352-4367
- Sayed, A.H.**, *see* Nassif, R., *TSP* 2020 1346-1360
- Sayed, A.H.**, *see* Jin, D., *TSP* 2020 2087-2104
- Scaglione, A.**, *see* Wai, H., *TSP* 2020 436-451
- Schaefer, R.F.**, *see* Boche, H., *TSP* 2020 6224-6239
- Schaefer, R.F.**, *see* Boche, H., *TSP* 2020 3754-3768
- Scharf, L.L.**, *see* Ramirez, D., *TSP* 2020 113-126
- Scharf, L.L.**, *see* Santamaria, I., *TSP* 2020 6432-6443
- Scharf, L.L.**, *see* Butler, R.W., *TSP* 2020 2925-2934
- Schaub, M.T.**, *see* Roddenberry, T.M., *TSP* 2020 5016-5030
- Schipp, F.**, *see* Kovacs, P., *TSP* 2020 478-492
- Schizas, I.D.**, Online Data Dimensionality Reduction and Reconstruction Using Graph Filtering; *TSP* 2020 3871-3886
- Schniter, P.**, A Simple Derivation of AMP and its State Evolution via First-Order Cancellation; *TSP* 2020 4283-4292
- Schober, R.**, *see* Ke, M., *TSP* 2020 764-779
- Scholefield, A.**, *see* Adam, K., *TSP* 2020 1105-1119
- Schreier, P.J.**, *see* Horstmann, S., *TSP* 2020 2340-2355
- Schulz, T.J.**, *see* Cummings, I.T., *TSP* 2020 1243-1258
- Sedighi, S.**, Rao, B.S.M.R., and Ottersten, B., An Asymptotically Efficient Weighted Least Squares Estimator for Co-Array-Based DoA Estimation; *TSP* 2020 589-604
- Segarra, S.**, *see* Zhu, Y., *TSP* 2020 3049-3063
- Segarra, S.**, *see* Wai, H., *TSP* 2020 436-451
- Segarra, S.**, *see* Roddenberry, T.M., *TSP* 2020 5016-5030
- Sekeh, S.Y.**, Oselio, B., and Hero, A.O., Learning to Bound the Multi-Class Bayes Error; *TSP* 2020 3793-3807
- Sery, T.**, and Cohen, K., On Analog Gradient Descent Learning Over Multiple Access Fading Channels; *TSP* 2020 2897-2911
- Setlur, P.**, *see* O'Rourke, S.M., *TSP* 2020 1744-1759
- Shah, S.B.**, Chakka, V.K., and Reddy, A.S., Orthogonal and Non-Orthogonal Signal Representations Using New Transformation Matrices Having NPM Structure; *TSP* 2020 1229-1242
- Shakeri, Z.**, *see* Ghassemi, M., *TSP* 2020 33-48
- Shamsollahi, M.B.**, *see* Karimi, S., *TSP* 2020 5736-5745
- Shao, X.**, Chen, X., and Jia, R., A Dimension Reduction-Based Joint Activity Detection and Channel Estimation Algorithm for Massive Access; *TSP* 2020 420-435
- Shao, X.**, Chen, X., Ng, D.W.K., Zhong, C., and Zhang, Z., Cooperative Activity Detection: Sourced and Unsourced Massive Random Access Paradigms; *TSP* 2020 6578-6593
- Sharma, N.**, Mastronarde, N., and Chakareski, J., Accelerated Structure-Aware Reinforcement Learning for Delay-Sensitive Energy Harvesting Wireless Sensors; *TSP* 2020 1409-1424
- Shen, C.**, Chang, T., Gong, J., Zeng, Y., and Zhang, R., Multi-UAV Interference Coordination via Joint Trajectory and Power Control; *TSP* 2020 843-858
- Shen, C.**, *see* Gan, C., *TSP* 2020 3692-3706
- Shen, J.**, *see* Zheng, W., *TSP* 2020 4597-4611
- Shen, Q.**, Liu, W., Wang, L., and Liu, Y., Group Sparsity Based Localization for Far-Field and Near-Field Sources Based on Distributed Sensor Array Networks; *TSP* 2020 6493-6508
- Shen, X.**, *see* Che, Y., *TSP* 2020 5696-5705
- Shen, X.**, *see* Jia, T., *TSP* 2020 5824-5841
- Shen, Y.**, *see* Ceci, E., *TSP* 2020 2870-2882
- Shen, Y.**, *see* Gu, K., *TSP* 2020 5411-5426
- Shen, Y.**, *see* Zhao, H., *TSP* 2020 3529-3544
- Shi, J.**, Liu, X., Xiang, W., Han, M., and Zhang, Q., Novel Fractional Wavelet Packet Transform: Theory, Implementation, and Applications; *TSP* 2020 4041-4054
- Shi, J.**, Zheng, J., Liu, X., Xiang, W., and Zhang, Q., Novel Short-Time Fractional Fourier Transform: Theory, Implementation, and Applications; *TSP* 2020 3280-3295
- Shi, L.**, Zhao, H., Zakharov, Y., Chen, B., and Yang, Y., Variable Step-Size Widely Linear Complex-Valued Affine Projection Algorithm and Performance Analysis; *TSP* 2020 5940-5953
- Shi, Q.**, Hong, M., Fu, X., and Chang, T., Penalty Dual Decomposition Method for Nonsmooth Nonconvex Optimization—Part II: Applications; *TSP* 2020 4242-4257
- Shi, Q.**, *see* Bai, J., *TSP* 2020 503-518
- Shi, Q.**, and Hong, M., Penalty Dual Decomposition Method for Nonsmooth Nonconvex Optimization—Part I: Algorithms and Convergence Analysis; *TSP* 2020 4108-4122
- Shi, Y.**, *see* Dong, J., *TSP* 2020 1136-1151
- Shim, B.**, *see* Yoo, J.H., *TSP* 2020 4135-4147
- Shin, W.**, *see* Lee, B., *TSP* 2020 4497-4512
- Shiraishi, Y.**, *see* Takano, Y., *TSP* 2020 300-313
- Shlezinger, N.**, *see* Liu, X., *TSP* 2020 3929-3944
- Shlezinger, N.**, *see* Huang, T., *TSP* 2020 5706-5721
- Shlezinger, N.**, *see* Huang, T., *TSP* 2020 3423-3438
- Shlezinger, N.**, *see* Wang, M., *TSP* 2020 49-64
- Shnitzer, T.**, Talmon, R., and Slotine, J., Diffusion Maps Kalman Filter for a Class of Systems With Gradient Flows; *TSP* 2020 2739-2753
- Shokri-Ghadikolaei, H.**, *see* Magnusson, S., *TSP* 2020 6101-6116
- Shtern, S.**, *see* Gur, E., *TSP* 2020 6418-6431
- Sidiropoulos, N.D.**, *see* Kanatsoulis, C.I., *TSP* 2020 1-16
- Sidiropoulos, N.D.**, *see* Ibrahim, M.S., *TSP* 2020 1897-1909
- Sidiropoulos, N.D.**, *see* Sorensen, M., *TSP* 2020 5122-5137
- Sidiropoulos, N.D.**, *see* Yang, B., *TSP* 2020 2857-2869
- Silva, T.T.P.**, Lara, P., Igreja, F., Oliveira, F.D.V.R., Tarrataca, L., and Haddad, D.B., An Exact Expectation Model for the LMS Tracking Abilities; *TSP* 2020 5882-5893
- Singer, A.**, *see* Lan, T., *TSP* 2020 1589-1601
- Singh, A.K.**, *see* Kim, C.K., *TSP* 2020 3990-4001
- Siniscalchi, S.M.**, *see* Qi, J., *TSP* 2020 3411-3422
- Sinopoli, B.S.**, *see* Balthazar, L., *TSP* 2020 780-792
- Sirigina, R.P.**, *see* Ernest, T.Z.H., *TSP* 2020 3103-3116
- Sirignano, E.**, *see* Vitetta, G.M., *TSP* 2020 1002-1020
- Siripuram, A.**, and Osgood, B., Convolution Idempotents With a Given Zero-Set; *TSP* 2020 4773-4781
- Sisson, S.A.**, *see* Li, C., *TSP* 2020 3860-3870
- Skoglund, M.**, *see* Ye, Y., *TSP* 2020 5842-5854
- Slotine, J.**, *see* Shnitzer, T., *TSP* 2020 2739-2753
- Smith, D.**, *see* Nosrati, H., *TSP* 2020 1374-1389
- Smith, T.**, *see* Gurel, N.M., *TSP* 2020 4268-4282
- So, H.C.**, *see* Fan, W., *TSP* 2020 1075-1090
- So, H.C.**, *see* Yang, C., *TSP* 2020 5244-5259
- So, H.C.**, *see* Zhang, S., *TSP* 2020 4643-4655
- So, H.C.**, *see* Zhang, S., *TSP* 2020 6621-6632
- Sokolov, G.**, *see* Tartakovsky, A.G., *TSP* 2020 3371-3384
- Soltanalian, M.**, *see* Khobahi, S., *TSP* 2020 5292-5307
- Song, A.H.**, Flores, F.J., and Ba, D., Convolutional Dictionary Learning With Grid Refinement; *TSP* 2020 2558-2573
- Song, Y.**, *see* Liu, Z., *TSP* 2020 4407-4421
- Song, Z.**, *see* Hu, B., *TSP* 2020 2077-2086
- Sorensen, M.**, and Sidiropoulos, N.D., Multi-Set Low-Rank Factorizations With Shared and Unshared Components; *TSP* 2020 5122-5137
- Souden, M.**, *see* Wung, J., *TSP* 2020 3559-3574
- Srinivasa, A.**, *see* Iquebal, A.S., *TSP* 2020 4743-4756
- Stanczak, S.**, *see* Awan, D.A., *TSP* 2020 270-283
- Stawarski, K.**, *see* Meller, M., *TSP* 2020 5219-5229
- Stoica, P.**, *see* Tang, B., *TSP* 2020 2143-2154
- Stoica, P.**, *see* Tang, B., *TSP* 2020 5487
- Stojanov, A.**, *see* Gurel, N.M., *TSP* 2020 4268-4282
- Su, H.**, *see* Takano, Y., *TSP* 2020 300-313
- Su, T.**, *see* Zhang, J., *TSP* 2020 621-633
- Sulam, J.**, *see* Rey-Otero, I., *TSP* 2020 519-528

**Sun, C.**, *see* Wei, Z., *TSP* 2020 6187-6197  
**Sun, H.**, *see* Wu, W., *TSP* 2020 2912-2924  
**Sun, H.**, *see* Wu, W., *TSP* 2020 4555-4567  
**Sun, M.**, *see* Pan, J., *TSP* 2020 3635-3643  
**Sun, M.**, *see* Xia, W., *TSP* 2020 1361-1373  
**Sun, S.**, Distributed Optimal Linear Fusion Predictors and Filters for Systems With Random Parameter Matrices and Correlated Noises; *TSP* 2020 1064-1074  
**Sun, S.**, *see* Lin, H., *TSP* 2020 6117-6127  
**Sun, W.**, *see* Li, Y., *TSP* 2020 5473-5486  
**Sun, X.**, *see* Gao, B., *TSP* 2020 5427-5440  
**Sun, Y.**, Ho, K.C., and Wan, Q., Eigenspace Solution for AOA Localization in Modified Polar Representation; *TSP* 2020 2256-2271  
**Sun, Z.**, and Nakhai, M.R., An Online Learning Algorithm for Distributed Task Offloading in Multi-Access Edge Computing; *TSP* 2020 3090-3102  
**Suraweera, H.A.**, *see* Chopra, R., *TSP* 2020 3132-3145  
**Svensson, L.**, *see* Garcia-Fernandez, A.F., *TSP* 2020 3917-3928  
**Svensson, L.**, *see* Garcia-Fernandez, A.F., *TSP* 2020 4933-4945  
**Swindlehurst, A.L.**, *see* Yang, X., *TSP* 2020 3341-3357  
**Swindlehurst, A.L.**, *see* O'Rourke, S.M., *TSP* 2020 1744-1759

## T

**T. S., B.**, *see* V., H., *TSP* 2020 1923-1936  
**Tabaghi, P.**, Dokmanic, I., and Vetterli, M., Kinetic Euclidean Distance Matrices; *TSP* 2020 452-465  
**Takano, Y.**, Su, H., Shirraishi, Y., and Morii, M., A Spatial-Temporal Subspace-Based Compressive Channel Estimation Technique in Unknown Interference MIMO Channels; *TSP* 2020 300-313  
**Takeda, A.**, *see* Markovsky, I., *TSP* 2020 3064-3073  
**Talmon, R.**, *see* Taseska, M., *TSP* 2020 314-326  
**Talmon, R.**, *see* Shnitzer, T., *TSP* 2020 2739-2753  
**Tan, J.**, *see* Ji, K., *TSP* 2020 4210-4225  
**Tanaka, Y.**, and Eldar, Y.C., Generalized Sampling on Graphs With Subspace and Smoothness Priors; *TSP* 2020 2272-2286  
**Tang, B.**, Tuck, J., and Stoica, P., Polyphase Waveform Design for MIMO Radar Space Time Adaptive Processing; *TSP* 2020 2143-2154  
**Tang, B.**, Tuck, J., and Stoica, P., Erratum to "Polyphase Waveform Design for MIMO Radar Space Time Adaptive Processing" [Mar 20 2143-2154]; *TSP* 2020 5487  
**Tang, G.**, *see* Xie, Y., *TSP* 2020 1884-1896  
**Tang, M.**, *see* Rong, Y., *TSP* 2020 1197-1212  
**Tang, M.**, Rong, Y., Li, X.R., and Zhou, J., Invariance Theory for Adaptive Detection in Non-Gaussian Clutter; *TSP* 2020 2045-2060  
**Tang, W.**, *see* Bai, G., *TSP* 2020 4959-4970  
**Tao, R.**, *see* Xiao, P., *TSP* 2020 5746-5758  
**Tao, R.**, *see* Ma, J., *TSP* 2020 4148-4162  
**Tarrataca, L.**, *see* Silva, T.T.P., *TSP* 2020 5882-5893  
**Tartakovsky, A.G.**, Sokolov, G., and Bar-Shalom, Y., Nearly Optimal Adaptive Sequential Tests for Object Detection; *TSP* 2020 3371-3384  
**Taseska, M.**, van Waterschoot, T., Habets, E.A.P., and Talmon, R., Nonlinear Filtering With Variable Bandwidth Exponential Kernels; *TSP* 2020 314-326  
**Taylor, C.J.**, *see* Dong, X., *TSP* 2020 6055-6069  
**Teke, O.**, and Vaidyanathan, P.P., IIR Filtering on Graphs With Random Node-Asynchronous Updates; *TSP* 2020 3945-3960  
**Terenzi, A.**, *see* Carini, A., *TSP* 2020 5308-5321  
**Tewfik, A.**, *see* Akl, N., *TSP* 2020 990-1001  
**Theodoridis, S.**, *see* Yin, F., *TSP* 2020 5260-5275  
**Tholeti, T.**, and Kalyani, S., Tune Smarter Not Harder: A Principled Approach to Tuning Learning Rates for Shallow Nets; *TSP* 2020 5063-5078  
**Tichavsky, P.**, *see* Kautsky, V., *TSP* 2020 5230-5243  
**Tichavsky, P.**, *see* Kautsky, V., *TSP* 2020 4258-4267  
**Tichy, O.**, *see* Dedecius, K., *TSP* 2020 5365-5378  
**Ting, C.**, *see* Field, R., *TSP* 2020 6394-6401  
**Tirer, T.**, and Bialer, O., A Method for Reducing the Performance Gap Between Non-Coherent and Coherent Sub-Arrays; *TSP* 2020 3358-3370  
**Tomasin, S.**, *see* Ceccato, M., *TSP* 2020 5782-5794  
**Tong, X.**, *see* Cheng, L., *TSP* 2020 1792-1806

+ Check author entry for coauthors

**Tonnellier, T.**, *see* Ercan, F., *TSP* 2020 5441-5456  
**Tran, N.**, Abramenko, O., and Jung, A., On the Sample Complexity of Graphical Model Selection From Non-Stationary Samples; *TSP* 2020 17-32  
**Trinh-Hoang, M.**, Viberg, M., and Pesavento, M., Cramér-Rao Bound for DOA Estimators Under the Partial Relaxation Framework: Derivation and Comparison; *TSP* 2020 3194-3208  
**Truong, T.**, *see* Zhang, F., *TSP* 2020 662-675  
**Tsai, J.J.P.**, *see* Ko, H., *TSP* 2020 1807-1822  
**Tsai, S.**, *see* Wang, C., *TSP* 2020 1484-1499  
**Tsaknakis, I.**, *see* Lu, S., *TSP* 2020 3676-3691  
**Tsinos, C.G.**, *see* Arora, A., *TSP* 2020 701-714  
**Tuan, H.D.**, *see* Nguyen, H.T., *TSP* 2020 1455-1469  
**Tuck, J.**, *see* Tang, B., *TSP* 2020 2143-2154  
**Tuck, J.**, *see* Tang, B., *TSP* 2020 5487  
**Tufvesson, F.**, *see* Brihuega, A., *TSP* 2020 3603-3618  
**Tugnait, J.K.**, Deviance Tests for Graph Estimation From Multi-Attribute Gaussian Data; *TSP* 2020 5632-5647  
**Turlapaty, A.C.**, Variational Bayesian Estimation of Statistical Properties of Composite Gamma Log-Normal Distribution; *TSP* 2020 6481-6492

## U

**Ueng, Y.**, *see* Lee, H., *TSP* 2020 5954-5967  
**Unser, M.**, A Note on BIBO Stability; *TSP* 2020 5904-5913  
**Unser, M.**, *see* Aziznejad, S., *TSP* 2020 4688-4699  
**Unser, M.**, *see* Dadi, L., *TSP* 2020 4397-4406  
**Unser, M.**, *see* Bohra, P., *TSP* 2020 4543-4554  
**Uribe, C.A.**, *see* Hare, J.Z., *TSP* 2020 4178-4193  
**Usevich, K.**, *see* Prevost, C., *TSP* 2020 931-946  
**Utschick, W.**, *see* Matthiesen, B., *TSP* 2020 2529-2544  
**Utschick, W.**, *see* Hellings, C., *TSP* 2020 6467-6480

## V

**V., H.**, T. S., B., Analysis of Different Rational Decimated Filter Banks Derived From the Same Set of Prototype Filters; *TSP* 2020 1923-1936  
**Vahidpour, V.**, Rastegarnia, A., Khalili, A., Bazzi, W.M., and Sanei, S., Variants of Partial Update Augmented CLMS Algorithm and Their Performance Analysis; *TSP* 2020 3146-3157  
**Vaidyanathan, P.P.**, *see* Chen, P., *TSP* 2020 5395-5410  
**Vaidyanathan, P.P.**, *see* Teke, O., *TSP* 2020 3945-3960  
**Valkama, M.**, *see* Yli-Kaakinen, J., *TSP* 2020 1213-1228  
**Valkama, M.**, *see* Brihuega, A., *TSP* 2020 3603-3618  
**Vallet, P.**, *see* Mestre, X., *TSP* 2020 4656-4671  
**Van Huffel, S.**, *see* Li, C., *TSP* 2020 3860-3870  
**Van Vaerenbergh, S.**, *see* Ramirez, D., *TSP* 2020 113-126  
**van Waterschoot, T.**, *see* Taseska, M., *TSP* 2020 314-326  
**Vandecappelle, M.**, Vervliet, N., and Lathauwer, L.D., A Second-Order Method for Fitting the Canonical Polyadic Decomposition With Non-Least-Squares Cost; *TSP* 2020 4454-4465  
**Varshney, P.K.**, *see* Geng, B., *TSP* 2020 4083-4093  
**Varshney, P.K.**, *see* Li, C., *TSP* 2020 6040-6054  
**Varshney, P.K.**, *see* Lin, H., *TSP* 2020 647-661  
**Varshney, P.K.**, *see* Geng, B., *TSP* 2020 1091-1104  
**Varshney, P.K.**, *see* Zhang, S., *TSP* 2020 830-842  
**Varshney, P.K.**, *see* Li, C., *TSP* 2020 2963-2976  
**Vasavada, Y.**, and Prakash, C., Sub-Nyquist Spectrum Sensing of Sparse Wideband Signals Using Low-Density Measurement Matrices; *TSP* 2020 3723-3737  
**Venkitasubramaniam, P.**, *see* Zhang, R., *TSP* 2020 6509-6520  
**Venturino, L.**, *see* Grossi, E., *TSP* 2020 1544-1557  
**Vervliet, N.**, *see* Vandecappelle, M., *TSP* 2020 4454-4465  
**Vetterli, M.**, *see* Adam, K., *TSP* 2020 1105-1119  
**Vetterli, M.**, *see* Tabaghi, P., *TSP* 2020 452-465  
**Vetterli, M.**, *see* Krekovic, M., *TSP* 2020 2480-2498  
**Viberg, M.**, *see* Trinh-Hoang, M., *TSP* 2020 3194-3208  
**Vidyasagar, M.**, *see* Burnwal, S.P., *TSP* 2020 3834-3848  
**Vidyasagar, M.**, *see* Lotfi, M., *TSP* 2020 3008-3021

**Viesti, P.D.**, see Vitetta, G.M., *TSP 2020 1002-1020*  
**Vincent Poor, H.**, see Ye, Y., *TSP 2020 5842-5854*  
**Vitetta, G.M.**, Viesti, P.D., Sirignano, E., and Montorsi, F., Multiple Bayesian Filtering as Message Passing; *TSP 2020 1002-1020*  
**Vlaski, S.**, see Nassif, R., *TSP 2020 2948-2962*  
**Vlaski, S.**, see Nassif, R., *TSP 2020 1346-1360*  
**Vo, B.**, see Beard, M., *TSP 2020 2754-2769*  
**Vo, B.T.**, see Beard, M., *TSP 2020 2754-2769*  
**Vorobyov, S.A.**, see Huang, Y., *TSP 2020 2244-2255*  
**Vorobyov, S.A.**, see Kumari, P., *TSP 2020 715-730*  
**Vorobyov, S.A.**, see Florea, M.I., *TSP 2020 3033-3048*  
**Vorobyov, S.A.**, see Neinavaie, M., *TSP 2020 6547-6561*  
**Vucetic, B.**, see Yan, Z., *TSP 2020 2613-2628*

## W

**Wahlberg, B.**, see Mattila, R., *TSP 2020 4987-5002*  
**Wai, H.**, see Wu, R., *TSP 2020 1728-1743*  
**Wai, H.**, see Fu, X., *TSP 2020 2170-2185*  
**Wai, H.**, Segarra, S., Ozdaglar, A.E., Scaglione, A., and Jadbabaie, A., Blind Community Detection From Low-Rank Excitations of a Graph Filter; *TSP 2020 436-451*  
**Wai, H.**, see Roddenberry, T.M., *TSP 2020 5016-5030*  
**Wakin, M.B.**, see Xie, Y., *TSP 2020 1884-1896*  
**Wan, A.**, Uniform RIP Conditions for Recovery of Sparse Signals by  $\ell_p$  ( $0 < p \leq 1$ ) Minimization; *TSP 2020 5379-5394*  
**Wan, Q.**, see Sun, Y., *TSP 2020 2256-2271*  
**Wang, B.**, Fang, J., Duan, H., and Li, H., PhaseEqual: Convex Phase Retrieval via Alternating Direction Method of Multipliers; *TSP 2020 1274-1285*  
**Wang, B.**, see Yi, W., *TSP 2020 241-256*  
**Wang, C.**, Wen, C., Tsai, S., and Jin, S., Decentralized Expectation Consistent Signal Recovery for Phase Retrieval; *TSP 2020 1484-1499*  
**Wang, C.**, see Guo, D., *TSP 2020 5795-5809*  
**Wang, C.**, Yan, M., Rahimi, Y., and Lou, Y., Accelerated Schemes for the  $L_1/L_2$  Minimization; *TSP 2020 2660-2669*  
**Wang, F.**, Wang, Y., Cheung, G., and Yang, C., Graph Sampling for Matrix Completion Using Recurrent Gershgorin Disc Shift; *TSP 2020 2814-2829*  
**Wang, F.**, and Li, H., Joint Waveform and Receiver Design for Co-Channel Hybrid Active-Passive Sensing With Timing Uncertainty; *TSP 2020 466-477*  
**Wang, F.**, see Bai, Y., *TSP 2020 2419-2434*  
**Wang, F.**, see He, Y., *TSP 2020 181-195*  
**Wang, G.**, Marano, S., Zhu, J., and Xu, Z., Target Localization by Unlabeled Range Measurements; *TSP 2020 6607-6620*  
**Wang, G.**, see Ahmed, M.M., *TSP 2020 4839-4854*  
**Wang, G.**, see Wang, Y., *TSP 2020 5457-5472*  
**Wang, G.**, see Wang, S.L., *TSP 2020 885-900*  
**Wang, G.**, see Dey, S.S., *TSP 2020 6696-6706*  
**Wang, H.**, Chen, L., Li, M., and Gong, P., Consensus-Based Clock Synchronization in Wireless Sensor Networks With Truncated Exponential Delays; *TSP 2020 1425-1438*  
**Wang, H.**, see Yu, X., *TSP 2020 5968-5982*  
**Wang, H.**, see Jia, T., *TSP 2020 5824-5841*  
**Wang, J.**, see Zhang, G., *TSP 2020 3660-3675*  
**Wang, J.**, see Yang, D., *TSP 2020 4368-4381*  
**Wang, J.**, see Bai, G., *TSP 2020 4959-4970*  
**Wang, K.**, see Zhou, G., *TSP 2020 5092-5106*  
**Wang, K.**, see Zhou, G., *TSP 2020 3236-3251*  
**Wang, L.**, see Shen, Q., *TSP 2020 6493-6508*  
**Wang, M.**, Gao, F., Shlezinger, N., Flanagan, M.F., and Eldar, Y.C., A Block Sparsity Based Estimator for mmWave Massive MIMO Channels With Beam Squint; *TSP 2020 49-64*  
**Wang, P.**, see Liu, L., *TSP 2020 573-588*  
**Wang, P.**, and Li, H., Target Detection With Imperfect Waveform Separation in Distributed MIMO Radar; *TSP 2020 793-807*  
**Wang, Q.**, see Dong, M., *TSP 2020 3738-3753*  
**Wang, Q.**, see Xia, W., *TSP 2020 1361-1373*  
**Wang, S.**, see Cheng, L., *TSP 2020 1792-1806*  
**Wang, S.**, see Xing, C., *TSP 2020 1618-1634*  
**Wang, S.**, see Qian, G., *TSP 2020 978-989*  
**Wang, S.L.**, Xu, Z., Yang, X., Li, Z., and Wang, G., Efficient and Unambiguous Two-Target Resolution via Subarray-Based Four-Channel Monopulse; *TSP 2020 885-900*  
**Wang, W.**, see You, K., *TSP 2020 4194-4209*  
**Wang, W.**, see You, L., *TSP 2020 2645-2659*  
**Wang, X.**, see Li, T., *TSP 2020 2883-2896*  
**Wang, X.**, see Yu, Y., *TSP 2020 2199-2214*  
**Wang, X.**, see Li, B., *TSP 2020 97-112*  
**Wang, X.**, see Hu, C., *TSP 2020 1673-1687*  
**Wang, X.**, see Chen, P., *TSP 2020 4293-4306*  
**Wang, X.**, Ishii, H., Du, L., Cheng, P., and Chen, J., Privacy-Preserving Distributed Machine Learning via Local Randomization and ADMM Perturbation; *TSP 2020 4226-4241*  
**Wang, X.**, Yang, Z., Huang, J., and de Lamare, R.C., Robust Two-Stage Reduced-Dimension Sparsity-Aware STAP for Airborne Radar With Coprime Arrays; *TSP 2020 81-96*  
**Wang, X.**, see Wei, X., *TSP 2020 2302-2315*  
**Wang, Y.**, see Gao, B., *TSP 2020 5427-5440*  
**Wang, Y.**, see Wang, F., *TSP 2020 2814-2829*  
**Wang, Y.**, Liu, W., Zhou, X., and Liu, G., On the Performance of Splitting Receiver With Joint Coherent and Non-Coherent Processing; *TSP 2020 917-930*  
**Wang, Y.**, see Feng, B., *TSP 2020 5559-5572*  
**Wang, Y.**, see Pan, J., *TSP 2020 3635-3643*  
**Wang, Y.**, see Feng, B., *TSP 2020 5276-5291*  
**Wang, Y.**, see Luo, Y., *TSP 2020 4757-4772*  
**Wang, Y.**, see Xiao, L., *TSP 2020 5349-5364*  
**Wang, Y.**, Wang, G., Chen, S., Ho, K.C., and Huang, L., An Investigation and Solution of Angle Based Rigid Body Localization; *TSP 2020 5457-5472*  
**Wang, Y.**, see Wang, Z., *TSP 2020 3158-3168*  
**Wang, Y.**, see Gu, K., *TSP 2020 5411-5426*  
**Wang, Y.**, see Bai, J., *TSP 2020 503-518*  
**Wang, Y.**, see Zheng, W., *TSP 2020 4597-4611*  
**Wang, Z.**, Li, G., and Chen, H., Adaptive Persymmetric Subspace Detectors in the Partially Homogeneous Environment; *TSP 2020 5178-5187*  
**Wang, Z.**, and Wang, Y., Global Synchronization of Pulse-Coupled Oscillator Networks Under Byzantine Attacks; *TSP 2020 3158-3168*  
**Wang, Z.J.**, see Ding, X., *TSP 2020 1910-1922*  
**Wassell, I.J.**, see Xiao, H., *TSP 2020 6665-6680*  
**Waytowich, N.R.**, see Bohannon, A.W., *TSP 2020 4481-4496*  
**Wei, H.**, and Lu, P., On Optimality of Weighted Multidimensional Scaling for Range-Based Localization; *TSP 2020 2105-2113*  
**Wei, Q.**, see Liu, L., *TSP 2020 573-588*  
**Wei, S.**, see Liu, L., *TSP 2020 573-588*  
**Wei, X.**, Jiang, Y., Liu, Q., and Wang, X., Calibration of Phase Shifter Network for Hybrid Beamforming in mmWave Massive MIMO Systems; *TSP 2020 2302-2315*  
**Wei, Y.**, Zhao, M., Hong, M., Zhao, M., and Lei, M., Learned Conjugate Gradient Descent Network for Massive MIMO Detection; *TSP 2020 6336-6349*  
**Wei, Z.**, Li, B., Sun, C., and Guo, W., Sampling and Inference of Networked Dynamics Using Log-Koopman Nonlinear Graph Fourier Transform; *TSP 2020 6187-6197*  
**Weiss, A.**, and Yeredor, A., Asymptotically Optimal Blind Calibration of Uniform Linear Sensor Arrays for Narrowband Gaussian Signals; *TSP 2020 5322-5333*  
**Welch, W.J.**, see Ding, X., *TSP 2020 1910-1922*  
**Wen, C.**, see Yang, X., *TSP 2020 3341-3357*  
**Wen, C.**, see He, H., *TSP 2020 1702-1715*  
**Wen, C.**, see Wang, C., *TSP 2020 1484-1499*  
**Wen, J.**, see Lyu, S., *TSP 2020 257-269*  
**Wen, J.**, Zhang, R., and Yu, W., Signal-Dependent Performance Analysis of Orthogonal Matching Pursuit for Exact Sparse Recovery; *TSP 2020 5031-5046*  
**Weng, J.**, see Lyu, S., *TSP 2020 257-269*  
**Werner, S.**, see Chen, K., *TSP 2020 1515-1528*  
**Willett, P.**, see Marano, S., *TSP 2020 2935-2947*  
**Williams, J.L.**, see Garcia-Fernandez, A.F., *TSP 2020 4933-4945*

**Wills, A.G.**, *see* Eilsen, A.A., *TSP 2020 1950-1963*  
**Wills, A.G.**, *see* Bartlett, N.J., *TSP 2020 2404-2418*  
**Wimalajeewa, T.**, *see* Geng, B., *TSP 2020 1091-1104*  
**Wouters, J.**, Patrinos, P., Kloosterman, F., and Bertrand, A., Multi-Pattern Recognition Through Maximization of Signal-to-Peak-Interference Ratio With Application to Neural Spike Sorting; *TSP 2020 6240-6254*  
**Wu, A.A.**, *see* Chou, C., *TSP 2020 4094-4107*  
**Wu, R.**, Wai, H., and Ma, W., Hybrid Inexact BCD for Coupled Structured Matrix Factorization in Hyperspectral Super-Resolution; *TSP 2020 1728-1743*  
**Wu, S.**, *see* Zhu, Q., *TSP 2020 2629-2644*  
**Wu, S.**, *see* Feng, B., *TSP 2020 5559-5572*  
**Wu, W.**, Sun, H., Cai, Y., Jiang, S., and Xiong, J., Tracking Multiple Maneuvering Targets Hidden in the DBZ Based on the MM-GLMB Filter; *TSP 2020 2912-2924*  
**Wu, W.**, Sun, H., Cai, Y., and Xiong, J., MM-GLMB Filter-Based Sensor Control for Tracking Multiple Maneuvering Targets Hidden in the Doppler Blind Zone; *TSP 2020 4555-4567*  
**Wu, Y.**, *see* Cheng, L., *TSP 2020 1792-1806*  
**Wu, Y.**, *see* Feng, B., *TSP 2020 5276-5291*  
**Wu, Y.**, *see* Ke, M., *TSP 2020 764-779*  
**Wu, Z.**, *see* Chen, J., *TSP 2020 2784-2798*  
**Wu, Z.**, *see* Zhang, H., *TSP 2020 1021-1033*  
**Wu, Z.**, Zhong, Z., and Zhang, L., Blind Recognition of Cyclic Codes Based on Average Cosine Conformity; *TSP 2020 2328-2339*  
**Wu, Z.**, Ling, Q., Chen, T., and Giannakis, G.B., Federated Variance-Reduced Stochastic Gradient Descent With Robustness to Byzantine Attacks; *TSP 2020 4583-4596*  
**Wunder, G.**, *see* Roth, I., *TSP 2020 4002-4016*  
**Wung, J.**, *see* Malik, S., *TSP 2020 4887-4902*  
**Wung, J.**, Jukic, A., Malik, S., Souden, M., Pichevar, R., Atkins, J., Naik, D., and Acero, A., Robust Multichannel Linear Prediction for Online Speech Dereverberation Using Weighted Householder Least Squares Lattice Adaptive Filter; *TSP 2020 3559-3574*

## X

**Xavier, J.**, *see* Balthazar, L., *TSP 2020 780-792*  
**Xi, F.**, Xiang, Y., Chen, S., and Nehorai, A., Gridless Parameter Estimation for One-Bit MIMO Radar With Time-Varying Thresholds; *TSP 2020 1048-1063*  
**Xia, W.**, Sun, M., and Wang, Q., Direct Target Tracking by Distributed Gaussian Particle Filtering for Heterogeneous Networks; *TSP 2020 1361-1373*  
**Xia, X.**, *see* Zhang, X., *TSP 2020 327-342*  
**Xia, X.**, *see* Feng, B., *TSP 2020 5276-5291*  
**Xia, X.**, *see* Xiao, L., *TSP 2020 5349-5364*  
**Xia, Y.**, *see* Xiang, M., *TSP 2020 65-80*  
**Xia, Y.**, *see* Garcia-Fernandez, A.F., *TSP 2020 4933-4945*  
**Xiang, M.**, Xia, Y., and Mandic, D.P., Performance Analysis of Deficient Length Quaternion Least Mean Square Adaptive Filters; *TSP 2020 65-80*  
**Xiang, Q.**, Nevat, I., and Peters, G.W., Bayesian Spatial Field Reconstruction With Unknown Distortions in Sensor Networks; *TSP 2020 4336-4351*  
**Xiang, W.**, *see* Shi, J., *TSP 2020 4041-4054*  
**Xiang, W.**, *see* Shi, J., *TSP 2020 3280-3295*  
**Xiang, Y.**, *see* Fu, Y., *TSP 2020 5810-5823*  
**Xiang, Y.**, *see* Xi, F., *TSP 2020 1048-1063*  
**Xiao, C.**, *see* Feng, B., *TSP 2020 5276-5291*  
**Xiao, H.**, Chen, W., Fang, J., Ai, B., and Wassell, I.J., A Grant-Free Method for Massive Machine-Type Communication With Backward Activity Level Estimation; *TSP 2020 6665-6680*  
**Xiao, L.**, Xia, X., and Wang, Y., Exact and Robust Reconstructions of Integer Vectors Based on Multidimensional Chinese Remainder Theorem (MD-CRT); *TSP 2020 5349-5364*  
**Xiao, M.**, *see* Ye, Y., *TSP 2020 5842-5854*  
**Xiao, P.**, Liao, B., Tao, R., and Li, J., Generalized Fixed-Point Continuation Method: Convergence and Application; *TSP 2020 5746-5758*  
**Xiao, P.**, *see* Liu, Z., *TSP 2020 1529-1543*  
**Xiao, Y.**, Stabilization of a Modified LMS Algorithm for Canceling Nonlinear Memory Effects; *TSP 2020 3439-3449*

**Xie, H.**, *see* Li, C., *TSP 2020 3860-3870*  
**Xie, L.**, *see* Fang, X., *TSP 2020 5869-5881*  
**Xie, L.**, *see* Yi, X., *TSP 2020 731-746*  
**Xie, Y.**, Li, Y., Gu, Y., Cao, J., and Chen, B., Fixed-Point Minimum Error Entropy With Fiducial Points; *TSP 2020 3824-3833*  
**Xie, Y.**, Wakin, M.B., and Tang, G., Support Recovery for Sparse Signals With Unknown Non-Stationary Modulation; *TSP 2020 1884-1896*  
**Xie, Y.**, *see* Dey, S.S., *TSP 2020 6696-6706*  
**Xin, J.**, *see* Zuo, W., *TSP 2020 4713-4726*  
**Xin, R.**, Khan, U.A., and Kar, S., Variance-Reduced Decentralized Stochastic Optimization With Accelerated Convergence; *TSP 2020 6255-6271*  
**Xing, C.**, Jing, Y., Wang, S., Ma, S., and Poor, H.V., New Viewpoint and Algorithms for Water-Filling Solutions in Wireless Communications; *TSP 2020 1618-1634*  
**Xing, C.**, *see* Gong, S., *TSP 2020 4903-4918*  
**Xiong, J.**, *see* Wu, W., *TSP 2020 2912-2924*  
**Xiong, J.**, *see* Wu, W., *TSP 2020 4555-4567*  
**Xiong, J.**, *see* You, L., *TSP 2020 2645-2659*  
**Xu, J.**, Zhang, Y., Liao, G., and Cheung So, H., Resolving Range Ambiguity via Multiple-Input Multiple-Output Radar With Element-Pulse Coding; *TSP 2020 2770-2783*  
**Xu, J.**, *see* Ji, K., *TSP 2020 4210-4225*  
**Xu, S.**, and Yarovoy, A., Joint Features Extraction for Multiple Moving Targets Using (Ultra-)Wideband FMCW Signals in the Presence of Doppler Ambiguity; *TSP 2020 6562-6577*  
**Xu, W.**, *see* Yuan, K., *TSP 2020 4466-4480*  
**Xu, X.**, Li, G., and Gu, Y., Unraveling the Veil of Subspace RIP Through Near-Isometry on Subspaces; *TSP 2020 3117-3131*  
**Xu, X.**, *see* Li, G., *TSP 2020 3169-3178*  
**Xu, X.**, *see* Huang, T., *TSP 2020 5706-5721*  
**Xu, X.**, *see* Huang, T., *TSP 2020 3423-3438*  
**Xu, X.**, *see* Zhang, J., *TSP 2020 6142-6158*  
**Xu, Z.**, *see* Gao, B., *TSP 2020 5427-5440*  
**Xu, Z.**, *see* Wang, G., *TSP 2020 6607-6620*  
**Xu, Z.**, *see* Wang, S.L., *TSP 2020 885-900*  
**Xue, D.**, DeBrunner, L.S., and DeBrunner, V., On Computing the Discrete Hirschman Transform; *TSP 2020 6444-6452*

## Y

**Yan, J.**, Pu, W., Zhou, S., Liu, H., and Greco, M.S., Optimal Resource Allocation for Asynchronous Multiple Targets Tracking in Heterogeneous Radar Networks; *TSP 2020 4055-4068*  
**Yan, M.**, *see* Wang, C., *TSP 2020 2660-2669*  
**Yan, Z.**, Cheng, P., Chen, Z., Li, Y., and Vucetic, B., Gaussian Process Reinforcement Learning for Fast Opportunistic Spectrum Access; *TSP 2020 2613-2628*  
**Yang, B.**, Fu, X., Sidiropoulos, N.D., and Huang, K., Learning Nonlinear Mixtures: Identifiability and Algorithm; *TSP 2020 2857-2869*  
**Yang, C.**, *see* Wang, F., *TSP 2020 2814-2829*  
**Yang, C.**, Gu, Y., Chen, B., Ma, H., and So, H.C., Learning Proximal Operator Methods for Nonconvex Sparse Recovery with Theoretical Guarantee; *TSP 2020 5244-5259*  
**Yang, D.**, Ni, W., Du, L., Liu, H., and Wang, J., Efficient Attributed Scatter Center Extraction Based on Image-Domain Sparse Representation; *TSP 2020 4368-4381*  
**Yang, J.**, *see* Yu, X., *TSP 2020 3619-3634*  
**Yang, J.**, *see* Gan, C., *TSP 2020 3692-3706*  
**Yang, J.**, *see* Zhang, J., *TSP 2020 6142-6158*  
**Yang, J.**, and Yang, Y., Sparse Bayesian DOA Estimation Using Hierarchical Synthesis Lasso Priors for Off-Grid Signals; *TSP 2020 872-884*  
**Yang, P.**, *see* Liu, Z., *TSP 2020 1529-1543*  
**Yang, S.**, *see* Du, Y., *TSP 2020 2128-2142*  
**Yang, T.**, *see* Yu, Y., *TSP 2020 2199-2214*  
**Yang, X.**, Wen, C., Jin, S., and Swindlehurst, A.L., Bayes-Optimal MMSE Detector for Massive MIMO Relaying With Low-Precision ADCs/DACs; *TSP 2020 3341-3357*



- Yang, X.**, *see* Wang, S.L., *TSP* 2020 885-900
- Yang, Y.**, Pesavento, M., Luo, Z., and Ottersten, B., Inexact Block Coordinate Descent Algorithms for Nonsmooth Nonconvex Optimization; *TSP* 2020 947-961
- Yang, Y.**, *see* Shi, L., *TSP* 2020 5940-5953
- Yang, Y.**, *see* Adhikary, A.R., *TSP* 2020 4700-4712
- Yang, Y.**, *see* Yang, J., *TSP* 2020 872-884
- Yang, Z.**, *see* Wang, X., *TSP* 2020 81-96
- Yarovoy, A.**, *see* Xu, S., *TSP* 2020 6562-6577
- Yazici, B.**, *see* Yonel, B., *TSP* 2020 4612-4626
- Ye, Y.**, Chen, H., Xiao, M., Skoglund, M., and Vincent Poor, H., Privacy-Preserving Incremental ADMM for Decentralized Consensus Optimization; *TSP* 2020 5842-5854
- Yeredor, A.**, *see* Weiss, A., *TSP* 2020 5322-5333
- Yi, W.**, Zhou, T., Ai, Y., and Blum, R.S., Suboptimal Low Complexity Joint Multi-Target Detection and Localization for Non-Coherent MIMO Radar With Widely Separated Antennas; *TSP* 2020 901-916
- Yi, W.**, Yuan, Y., Hoseinnezhad, R., and Kong, L., Resource Scheduling for Distributed Multi-Target Tracking in Netted Colocated MIMO Radar Systems; *TSP* 2020 1602-1617
- Yi, W.**, Li, S., Wang, B., Hoseinnezhad, R., and Kong, L., Computationally Efficient Distributed Multi-Sensor Fusion With Multi-Bernoulli Filter; *TSP* 2020 241-256
- Yi, W.**, Li, G., and Battistelli, G., Distributed Multi-Sensor Fusion of PHD Filters With Different Sensor Fields of View; *TSP* 2020 5204-5218
- Yi, X.**, Li, X., Xie, L., and Johansson, K.H., Distributed Online Convex Optimization With Time-Varying Coupled Inequality Constraints; *TSP* 2020 731-746
- Yin, F.**, Pan, L., Chen, T., Theodoridis, S., Luo, Z.T., and Zoubir, A.M., Linear Multiple Low-Rank Kernel Based Stationary Gaussian Processes Regression for Time Series; *TSP* 2020 5260-5275
- Yin, F.**, *see* Jin, D., *TSP* 2020 1120-1135
- Yin, S.**, *see* Liu, L., *TSP* 2020 573-588
- Yin, W.**, *see* Mao, X., *TSP* 2020 2513-2528
- Yin, W.**, *see* Li, H., *TSP* 2020 4855-4870
- Ying, B.**, Yuan, K., and Sayed, A.H., Variance-Reduced Stochastic Learning Under Random Reshuffling; *TSP* 2020 1390-1408
- Ying, B.**, *see* Yuan, K., *TSP* 2020 4352-4367
- Yli-Kaakinen, J.**, Levanen, T., Palin, A., Renfors, M., and Valkama, M., Generalized Fast-Convolution-Based Filtered-OFDM: Techniques and Application to 5G New Radio; *TSP* 2020 1213-1228
- Yonel, B.**, and Yazici, B., A Deterministic Theory for Exact Non-Convex Phase Retrieval; *TSP* 2020 4612-4626
- Yoo, J.H.**, Lim, S.H., Shim, B., and Choi, J.W., Estimation of Dynamically Varying Support of Sparse Signals via Sequential Monte-Carlo Method; *TSP* 2020 4135-4147
- Yoon, B.**, *see* Zhao, G., *TSP* 2020 3849-3859
- You, K.**, Guo, W., Peng, T., Liu, Y., Zuo, P., and Wang, W., Parametric Sparse Bayesian Dictionary Learning for Multiple Sources Localization With Propagation Parameters Uncertainty; *TSP* 2020 4194-4209
- You, K.**, *see* Zhang, J., *TSP* 2020 2186-2198
- You, L.**, Xiong, J., Zappone, A., Wang, W., and Gao, X., Spectral Efficiency and Energy Efficiency Tradeoff in Massive MIMO Downlink Transmission With Statistical CSIT; *TSP* 2020 2645-2659
- Yu, Q.**, Dai, W., Cvetkovic, Z., and Zhu, J., Dictionary Learning With BLOT-LESS Update; *TSP* 2020 1635-1645
- Yu, W.**, *see* Zhang, F., *TSP* 2020 662-675
- Yu, W.**, *see* Wen, J., *TSP* 2020 5031-5046
- Yu, X.**, Cui, G., Yang, J., Li, J., and Kong, L., Quadratic Optimization for Unimodular Sequence Design via an ADPM Framework; *TSP* 2020 3619-3634
- Yu, X.**, Alhujaili, K., Cui, G., and Monga, V., MIMO Radar Waveform Design in the Presence of Multiple Targets and Practical Constraints; *TSP* 2020 1974-1989
- Yu, X.**, Du, Y., Dang, X., Leung, S., and Wang, H., Power Allocation Schemes for Uplink Massive MIMO System in the Presence of Imperfect CSI; *TSP* 2020 5968-5982
- Yu, Y.**, He, H., Yang, T., Wang, X., and de Lamare, R.C., Diffusion Normalized Least Mean M-estimate Algorithms: Design and Performance Analysis; *TSP* 2020 2199-2214
- Yuan, K.**, Xu, W., and Ling, Q., Can Primal Methods Outperform Primal-Dual Methods in Decentralized Dynamic Optimization?; *TSP* 2020 4466-4480
- Yuan, K.**, *see* Mao, X., *TSP* 2020 2513-2528
- Yuan, K.**, *see* Ying, B., *TSP* 2020 1390-1408
- Yuan, K.**, Alghunaim, S.A., Ying, B., and Sayed, A.H., On the Influence of Bias-Correction on Distributed Stochastic Optimization; *TSP* 2020 4352-4367
- Yuan, X.**, *see* Zhang, M., *TSP* 2020 2386-2400
- Yuan, Y.**, *see* Yi, W., *TSP* 2020 1602-1617

## Z

- Zaibbashi, A.**, and Li, J., Tunable Adaptive Target Detection With Kernels in Colocated MIMO Radar; *TSP* 2020 1500-1514
- Zakeri, B.**, *see* Molaei, A.M., *TSP* 2020 404-419
- Zakharov, Y.**, *see* Shi, L., *TSP* 2020 5940-5953
- Zappone, A.**, *see* Matthiesen, B., *TSP* 2020 3887-3902
- Zappone, A.**, *see* You, L., *TSP* 2020 2645-2659
- Zarzoso, V.**, *see* Goulart, J.H.d.M., *TSP* 2020 2682-2696
- Zarzoso, V.**, *see* Martin-Clemente, R., *TSP* 2020 225-240
- Zarzoso, V.**, *see* Kautsky, V., *TSP* 2020 5230-5243
- Zavlanos, M.M.**, *see* Paternain, S., *TSP* 2020 3486-3499
- Zeng, Y.**, *see* Shen, C., *TSP* 2020 843-858
- Zhang, C.**, *see* Gurel, N.M., *TSP* 2020 4268-4282
- Zhang, F.**, Zhang, Z., Yu, W., and Truong, T., Joint Range and Velocity Estimation With Intrapulse and Intersubcarrier Doppler Effects for OFDM-Based RadCom Systems; *TSP* 2020 662-675
- Zhang, G.**, Fu, X., Wang, J., Zhao, X., and Hong, M., Spectrum Cartography via Coupled Block-Term Tensor Decomposition; *TSP* 2020 3660-3675
- Zhang, H.**, *see* Cen, S., *TSP* 2020 3976-3989
- Zhang, H.**, Jin, J., and Wu, Z., Distributions and Power of Optimal Signal-Detection Statistics in Finite Case; *TSP* 2020 1021-1033
- Zhang, J.**, Li, Y., Su, T., and He, X., Quadratic FM Signal Detection and Parameter Estimation Using Coherently Integrated Trilinear Autocorrelation Function; *TSP* 2020 621-633
- Zhang, J.**, Xu, X., Chen, Z., Bao, M., Zhang, X., and Yang, J., High-Resolution DOA Estimation Algorithm for a Single Acoustic Vector Sensor at Low SNR; *TSP* 2020 6142-6158
- Zhang, J.**, *see* Zhang, S., *TSP* 2020 6621-6632
- Zhang, J.**, You, K., and Cai, K., Distributed Dual Gradient Tracking for Resource Allocation in Unbalanced Networks; *TSP* 2020 2186-2198
- Zhang, L.**, and Lan, J., Extended Object Tracking Using Random Matrix With Skewness; *TSP* 2020 5107-5121
- Zhang, L.**, *see* Wu, Z., *TSP* 2020 2328-2339
- Zhang, L.**, *see* Hu, B., *TSP* 2020 2077-2086
- Zhang, M.**, Yuan, X., and He, Z., Variance State Propagation for Structured Sparse Bayesian Learning; *TSP* 2020 2386-2400
- Zhang, N.**, *see* Zhao, H., *TSP* 2020 3529-3544
- Zhang, Q.**, *see* Shi, J., *TSP* 2020 4041-4054
- Zhang, Q.**, *see* Pang, F., *TSP* 2020 3385-3399
- Zhang, Q.**, *see* Feng, B., *TSP* 2020 5559-5572
- Zhang, Q.**, *see* Shi, J., *TSP* 2020 3280-3295
- Zhang, Q.**, and Ni, Y., Improved Most Likely Heteroscedastic Gaussian Process Regression via Bayesian Residual Moment Estimator; *TSP* 2020 3450-3460
- Zhang, R.**, *see* Shen, C., *TSP* 2020 843-858
- Zhang, R.**, *see* Wen, J., *TSP* 2020 5031-5046
- Zhang, R.**, and Venkatasubramanian, P., Optimal Local Differentially Private Quantization; *TSP* 2020 6509-6520
- Zhang, S.**, and So, H.C., Diffusion Average-Estimate Bias-Compensated LMS Algorithms Over Adaptive Networks Using Noisy Measurements; *TSP* 2020 4643-4655
- Zhang, S.**, Khanduri, P., and Varshney, P.K., Distributed Sequential Detection: Dependent Observations and Imperfect Communication; *TSP* 2020 830-842
- Zhang, S.**, and Zhang, Y.D., Low-Rank Hankel Matrix Completion for Robust Time-Frequency Analysis; *TSP* 2020 6171-6186

- Zhang, S.**, and Zheng, W.X., Distributed Separated-Decorrelation LMS Algorithms Over Sensor Networks With Noisy Inputs; *TSP 2020 4163-4177*
- Zhang, S.**, Zhang, J., and So, H.C., Low-Complexity Decorrelation NLMS Algorithms: Performance Analysis and AEC Application; *TSP 2020 6621-6632*
- Zhang, W.**, see Chen, J., *TSP 2020 1823-1836*
- Zhang, X.**, Xia, X., and He, Z., Phased-Array Transmission for Secure mmWave Wireless Communication via Polygon Construction; *TSP 2020 327-342*
- Zhang, X.**, see Zhang, X., *TSP 2020 327-342*
- Zhang, X.**, see Pan, J., *TSP 2020 3635-3643*
- Zhang, X.**, see Elkhailil, K., *TSP 2020 1574-1588*
- Zhang, X.**, Jiang, W., Huo, K., Liu, Y., and Li, X., Robust Adaptive Beamforming Based on Linearly Modified Atomic-Norm Minimization With Target Contaminated Data; *TSP 2020 5138-5151*
- Zhang, X.**, see Zhang, J., *TSP 2020 6142-6158*
- Zhang, X.**, see Zheng, W., *TSP 2020 4597-4611*
- Zhang, Y.**, and Ho, K.C., Multistatic Moving Object Localization by a Moving Transmitter of Unknown Location and Offset; *TSP 2020 4438-4453*
- Zhang, Y.**, see Kong, D., *TSP 2020 1259-1273*
- Zhang, Y.**, see Xu, J., *TSP 2020 2770-2783*
- Zhang, Y.**, see Hua, Z., *TSP 2020 1937-1949*
- Zhang, Y.D.**, see Zhang, S., *TSP 2020 6171-6186*
- Zhang, Z.**, see Li, J., *TSP 2020 5602-5616*
- Zhang, Z.**, see Shao, X., *TSP 2020 6578-6593*
- Zhang, Z.**, see Zhang, F., *TSP 2020 662-675*
- Zhao, C.**, see Li, B., *TSP 2020 97-112*
- Zhao, G.**, Qian, X., Yoon, B., Alexander, F.J., and Dougherty, E.R., Model-Based Robust Filtering and Experimental Design for Stochastic Differential Equation Systems; *TSP 2020 3849-3859*
- Zhao, H.**, see Shi, L., *TSP 2020 5940-5953*
- Zhao, H.**, Zhang, N., and Shen, Y., Beamspace Direct Localization for Large-Scale Antenna Array Systems; *TSP 2020 3529-3544*
- Zhao, L.**, see Chen, J., *TSP 2020 2784-2798*
- Zhao, M.**, see Liu, A., *TSP 2020 605-620*
- Zhao, M.**, see Wei, Y., *TSP 2020 6336-6349*
- Zhao, M.**, see Wei, Y., *TSP 2020 6336-6349*
- Zhao, Q.**, see Hemo, B., *TSP 2020 1181-1196*
- Zhao, X.**, see Zhang, G., *TSP 2020 3660-3675*
- Zhao, Y.**, see Meng, N., *TSP 2020 6594-6606*
- Zheng, J.**, see Shi, J., *TSP 2020 3280-3295*
- Zheng, M.**, see Feng, B., *TSP 2020 5276-5291*
- Zheng, N.**, see Qin, Z., *TSP 2020 2724-2738*
- Zheng, N.**, see Zuo, W., *TSP 2020 4713-4726*
- Zheng, W.**, Zhang, X., Wang, Y., Shen, J., and Champagne, B., Padded Coprime Arrays for Improved DOA Estimation: Exploiting Hole Representation and Filling Strategies; *TSP 2020 4597-4611*
- Zheng, W.X.**, see Zhang, S., *TSP 2020 4163-4177*
- Zheng, X.**, see Kong, D., *TSP 2020 1259-1273*
- Zheng, X.**, Liu, A., and Lau, V., Joint Channel and Location Estimation of Massive MIMO System With Phase Noise; *TSP 2020 2598-2612*
- Zhong, C.**, see Shao, X., *TSP 2020 6578-6593*
- Zhong, Z.**, see Wu, Z., *TSP 2020 2328-2339*
- Zhou, G.**, Pan, C., Ren, H., Wang, K., and Nallanathan, A., A Framework of Robust Transmission Design for IRS-Aided MISO Communications With Imperfect Cascaded Channels; *TSP 2020 5092-5106*
- Zhou, G.**, Pan, C., Ren, H., Wang, K., and Nallanathan, A., Intelligent Reflecting Surface Aided Multigroup Multicast MISO Communication Systems; *TSP 2020 3236-3251*
- Zhou, J.**, see Liu, X., *TSP 2020 3929-3944*
- Zhou, J.**, see Tang, M., *TSP 2020 2045-2060*
- Zhou, M.**, see Guo, D., *TSP 2020 5795-5809*
- Zhou, R.**, see Gan, C., *TSP 2020 3692-3706*
- Zhou, R.**, and Palomar, D.P., Understanding the Quintile Portfolio; *TSP 2020 4030-4040*
- Zhou, R.**, Liu, J., Kumar, S., and Palomar, D.P., Student's *t*-VAR Modeling With Missing Data Via Stochastic EM and Gibbs Sampling; *TSP 2020 6198-6211*
- Zhou, S.**, see Yan, J., *TSP 2020 4055-4068*
- Zhou, S.**, see Liu, L., *TSP 2020 573-588*
- Zhou, T.**, see Yi, W., *TSP 2020 901-916*
- Zhou, X.**, see Wang, Y., *TSP 2020 917-930*
- Zhou, Y.**, see Hua, Z., *TSP 2020 1937-1949*
- Zhou, Z.**, see Jiang, X., *TSP 2020 5664-5679*
- Zhou, Z.**, see Adhikary, A.R., *TSP 2020 4700-4712*
- Zhu, J.**, see Wang, G., *TSP 2020 6607-6620*
- Zhu, J.**, see Yu, Q., *TSP 2020 1635-1645*
- Zhu, Q.**, Wu, S., and Hua, Y., Optimal Pilots for Anti-Eavesdropping Channel Estimation; *TSP 2020 2629-2644*
- Zhu, T.**, see Fu, Y., *TSP 2020 5810-5823*
- Zhu, Y.**, see Qin, J., *TSP 2020 3266-3279*
- Zhu, Y.**, Garcia, F.J.I., Marques, A.G., and Segarra, S., Estimating Network Processes via Blind Identification of Multiple Graph Filters; *TSP 2020 3049-3063*
- Zhu, Y.**, see Che, Y., *TSP 2020 5696-5705*
- Zhuang, W.**, see Liu, Z., *TSP 2020 4407-4421*
- Zoubir, A.M.**, see Jiang, X., *TSP 2020 5664-5679*
- Zoubir, A.M.**, see Yin, F., *TSP 2020 5260-5275*
- Zoubir, A.M.**, see Jin, D., *TSP 2020 1120-1135*
- Zubair, M.**, Ahmed, S., and Alouini, M., Frequency Diverse Array Radar: New Results and Discrete Fourier Transform Based Beamforming; *TSP 2020 2670-2681*
- Zuo, P.**, see You, K., *TSP 2020 4194-4209*
- Zuo, W.**, Xin, J., Zheng, N., Ohmori, H., and Sano, A., Subspace-Based Near-Field Source Localization in Unknown Spatially Nonuniform Noise Environment; *TSP 2020 4713-4726*

## Subject Index

### Numeric

#### 3G mobile communication

Performance of Analog Beamforming Systems With Optimized Phase Noise Compensation. *Ratnam, V.V.*, *TSP 2020 5334-5348*

#### 5G mobile communication

A Grant-Free Method for Massive Machine-Type Communication With Backward Activity Level Estimation. *Xiao, H.*, +, *TSP 2020 6665-6680*

Cloud-Assisted Cooperative Localization for Vehicle Platoons: A Turbo Approach. *Liu, A.*, +, *TSP 2020 605-620*

Fast Algorithms for Joint Multicast Beamforming and Antenna Selection in Massive MIMO. *Ibrahim, M.S.*, +, *TSP 2020 1897-1909*

Generalized Fast-Convolution-Based Filtered-OFDM: Techniques and Application to 5G New Radio. *Yli-Kaakinen, J.*, +, *TSP 2020 1213-1228*

Joint Channel and Location Estimation of Massive MIMO System With Phase Noise. *Zheng, X.*, +, *TSP 2020 2598-2612*

#### 6G mobile communication

Cooperative Activity Detection: Sourced and Unsourced Massive Random Access Paradigms. *Shao, X.*, +, *TSP 2020 6578-6593*

## A

#### Accelerometers

A Novel Algorithm for Optimal Placement of Multiple Inertial Sensors to Improve the Sensing Accuracy. *Sahu, N.*, +, *TSP 2020 142-154*

#### Acoustic arrays

Subspace-Based Near-Field Source Localization in Unknown Spatially Nonuniform Noise Environment. *Zuo, W.*, +, *TSP 2020 4713-4726*

#### Acoustic signal processing

Double-Talk Robust Multichannel Acoustic Echo Cancellation Using Least-Squares MIMO Adaptive Filtering: Transversal, Array, and Lattice Forms. *Malik, S.*, +, *TSP 2020 4887-4902*

High-Resolution DOA Estimation Algorithm for a Single Acoustic Vector Sensor at Low SNR. *Zhang, J.*, +, *TSP 2020 6142-6158*

Low-Complexity Decorrelation NLMS Algorithms: Performance Analysis and AEC Application. *Zhang, S.*, +, *TSP 2020 6621-6632*

Shapes From Echoes: Uniqueness From Point-to-Plane Distance Matrices. *Krekovic, M.*, +, *TSP 2020 2480-2498*

Stereo Acoustic Echo Cancellation Based on Maximum Likelihood Estimation With Inter-Channel-Correlated Echo Compensation. *Cho, B.J.*, +, *TSP 2020 5188-5203*

Subspace-Based Near-Field Source Localization in Unknown Spatially Non-uniform Noise Environment. *Zuo, W.*, +, *TSP 2020 4713-4726*

#### Acoustic transducers

High-Resolution DOA Estimation Algorithm for a Single Acoustic Vector Sensor at Low SNR. *Zhang, J.*, +, *TSP 2020 6142-6158*

#### Adaptive estimation

Efficient Estimation of Graph Signals With Adaptive Sampling. *Ahmedi, M.J.*, +, *TSP 2020 3808-3823*

Sherman-Morrison Formula Aided Adaptive Channel Estimation for Underwater Visible Light Communication With Fractionally-Sampled OFDM. *Chen, J.*, +, *TSP 2020 2784-2798*

#### Adaptive filters

Affine Combination of Diffusion Strategies Over Networks. *Jin, D.*, +, *TSP 2020 2087-2104*

An Exact Expectation Model for the LMS Tracking Abilities. *Silva, T.T.P.*, +, *TSP 2020 5882-5893*

Analysis of the SNR Loss Distribution With Covariance Mismatched Training Samples. *Besson, O.*, *TSP 2020 5759-5768*

Double-Talk Robust Multichannel Acoustic Echo Cancellation Using Least-Squares MIMO Adaptive Filtering: Transversal, Array, and Lattice Forms. *Malik, S.*, +, *TSP 2020 4887-4902*

Efficient Estimation of Graph Signals With Adaptive Sampling. *Ahmedi, M.J.*, +, *TSP 2020 3808-3823*

ImDLMS: An Imputation Based LMS Algorithm for Linear System Identification With Missing Input Data. *Mukhopadhyay, S.*, +, *TSP 2020 2370-2385*

Low-Complexity Decorrelation NLMS Algorithms: Performance Analysis and AEC Application. *Zhang, S.*, +, *TSP 2020 6621-6632*

Maximum Total Complex Correntropy for Adaptive Filter. *Qian, G.*, +, *TSP 2020 978-989*

Nonlinear Adaptive Filtering With Kernel Set-Membership Approach. *Chen, K.*, +, *TSP 2020 1515-1528*

Performance Analysis of Deficient Length Quaternion Least Mean Square Adaptive Filters. *Xiang, M.*, +, *TSP 2020 65-80*

Quadratic Semidefinite Programming for Waveform-Constrained Joint Filter-Signal Design in STAP. *O'Rourke, S.M.*, +, *TSP 2020 1744-1759*

Robust Multichannel Linear Prediction for Online Speech Dereverberation Using Weighted Householder Least Squares Lattice Adaptive Filter. *Wung, J.*, +, *TSP 2020 3559-3574*

Stereo Acoustic Echo Cancellation Based on Maximum Likelihood Estimation With Inter-Channel-Correlated Echo Compensation. *Cho, B.J.*, +, *TSP 2020 5188-5203*

Variants of Partial Update Augmented CLMS Algorithm and Their Performance Analysis. *Vahidpour, V.*, +, *TSP 2020 3146-3157*

Widely Linear Quaternion-Valued Least-Mean Kurtosis Algorithm. *Menguc, E.C.*, +, *TSP 2020 5914-5922*

#### Adaptive modulation

Power Allocation Schemes for Uplink Massive MIMO System in the Presence of Imperfect CSI. *Yu, X.*, +, *TSP 2020 5968-5982*

#### Adaptive radar

CFAR Feature Plane: A Novel Framework for the Analysis and Design of Radar Detectors. *Coluccia, A.*, +, *TSP 2020 3903-3916*

Radar Adaptive Detection Architectures for Heterogeneous Environments. *Liu, J.*, +, *TSP 2020 4307-4319*

Rao-Based Detectors for Adaptive Target Detection in the Presence of Signal-Dependent Interference. *Ghojavand, K.*, +, *TSP 2020 1662-1672*

#### Adaptive signal detection

Adaptive Persymmetric Subspace Detectors in the Partially Homogeneous Environment. *Wang, Z.*, +, *TSP 2020 5178-5187*

CFAR Feature Plane: A Novel Framework for the Analysis and Design of Radar Detectors. *Coluccia, A.*, +, *TSP 2020 3903-3916*

Diffuse Multipath Exploitation for Adaptive Detection of Range Distributed Targets. *Rong, Y.*, +, *TSP 2020 1197-1212*

Persymmetric Adaptive Detection of Distributed Targets With Unknown Steering Vectors. *Liu, J.*, +, *TSP 2020 4123-4134*

#### Adaptive signal processing

Diffusion Average-Estimate Bias-Compensated LMS Algorithms Over Adaptive Networks Using Noisy Measurements. *Zhang, S.*, +, *TSP 2020 4643-4655*

Multi-Class Random Matrix Filtering for Adaptive Learning. *Braca, P.*, +, *TSP 2020 359-373*

Nearly Optimal Adaptive Sequential Tests for Object Detection. *Tartakovsky, A.G.*, +, *TSP 2020 3371-3384*

#### Affine transforms

FRI Sensing: Retrieving the Trajectory of a Mobile Sensor From Its Temporal Samples. *Guo, R.*, +, *TSP 2020 5533-5545*

#### Airborne radar

Erratum to "Polyphase Waveform Design for MIMO Radar Space Time Adaptive Processing" [Mar 20 2143-2154]. *Tang, B.*, +, *TSP 2020 5487*

Joint Features Extraction for Multiple Moving Targets Using (Ultra-)Wideband FMCW Signals in the Presence of Doppler Ambiguity. *Xu, S.*, +, *TSP 2020 6562-6577*

Polyphase Waveform Design for MIMO Radar Space Time Adaptive Processing. *Tang, B.*, +, *TSP 2020 2143-2154*

Robust Two-Stage Reduced-Dimension Sparsity-Aware STAP for Airborne Radar With Coprime Arrays. *Wang, X.*, +, *TSP 2020 81-96*

#### Algebra

Lattice Reduction Over Imaginary Quadratic Fields. *Lyu, S.*, +, *TSP 2020 6380-6393*

#### Amplifiers

On the Design of Multi-Spectrally Constrained Constant Modulus Radar Signals. *Aubry, A.*, +, *TSP 2020 2231-2243*

#### Analog-digital conversion

Bayes-Optimal MMSE Detector for Massive MIMO Relaying With Low-Precision ADCs/DACs. *Yang, X.*, +, *TSP 2020 3341-3357*

#### Analytical models

Learning Nonlinear Mixtures: Identifiability and Algorithm. *Yang, B.*, +, *TSP 2020 2857-2869*

#### Angular measurement

An Investigation and Solution of Angle Based Rigid Body Localization. *Wang, Y.*, +, *TSP 2020 5457-5472*

AOA Pseudolinear Target Motion Analysis in the Presence of Sensor Location Errors. *Pang, F.*, +, *TSP 2020 3385-3399*

#### Antenna arrays

A Method for Reducing the Performance Gap Between Non-Coherent and Coherent Sub-Arrays. *Tirer, T.*, +, *TSP 2020 3358-3370*

A Tensor-Based Approach to Joint Channel Estimation/Data Detection in Flexible Multicarrier MIMO Systems. *Kofidis, E.*, *TSP 2020 3179-3193*

Beamspace Direct Localization for Large-Scale Antenna Array Systems. *Zhao, H.*, +, *TSP 2020 3529-3544*

Calibration of Phase Shifter Network for Hybrid Beamforming in mmWave Massive MIMO Systems. *Wei, X.*, +, *TSP 2020 2302-2315*

Cooperative Activity Detection: Sourced and Unsourced Massive Random Access Paradigms. *Shao, X.*, +, *TSP 2020 6578-6593*

Decentralized Massive MIMO Processing Exploring Daisy-Chain Architecture and Recursive Algorithms. *Rodriguez Sanchez, J.*, +, *TSP 2020 687-700*

Energy- and Area-Efficient Recursive-Conjugate-Gradient-Based MMSE Detector for Massive MIMO Systems. *Liu, L.*, +, *TSP 2020 573-588*

Fast Algorithms for Joint Multicast Beamforming and Antenna Selection in Massive MIMO. *Ibrahim, M.S.*, +, *TSP 2020 1897-1909*

Fast Optimization With Zeroth-Order Feedback in Distributed, Multi-User MIMO Systems. *Bilenne, O.*, +, *TSP 2020 6085-6100*

Majorization-Minimization Aided Hybrid Transceivers for MIMO Interference Channels. *Gong, S.*, +, *TSP 2020 4903-4918*

Massive MIMO Radar for Target Detection. *Fortunati, S.*, +, *TSP 2020 859-871*

Multi-Group Multicast Beamforming: Optimal Structure and Efficient Algorithms. *Dong, M.*, +, *TSP 2020 3738-3753*

Multi-Stage Antenna Selection for Adaptive Beamforming in MIMO Radar. *Nosrati, H.*, +, *TSP 2020 1374-1389*

Nonsmooth Optimization Algorithms for Multicast Beamforming in Content-Centric Fog Radio Access Networks. *Nguyen, H.T.*, +, *TSP 2020 1455-1469*

- Optimal Pilots for Anti-Eavesdropping Channel Estimation. *Zhu, Q.*, +, *TSP 2020 2629-2644*
- Penalty Dual Decomposition Method for Nonsmooth Nonconvex Optimization—Part II: Applications. *Shi, Q.*, +, *TSP 2020 4242-4257*
- Power Allocation Schemes for Uplink Massive MIMO System in the Presence of Imperfect CSI. *Yu, X.*, +, *TSP 2020 5968-5982*
- Suboptimal Low Complexity Joint Multi-Target Detection and Localization for Non-Coherent MIMO Radar With Widely Separated Antennas. *Yi, W.*, +, *TSP 2020 901-916*
- The Extended Manifold for Antenna Arrays. *Friedlander, B.*, *TSP 2020 493-502*
- Two-Channel Passive Detection of Cyclostationary Signals. *Horstmann, S.*, +, *TSP 2020 2340-2355*
- Two-User SIMO Interference Channel With Treating Interference as Noise: Improper Signaling Versus Time-Sharing. *Hellings, C.*, +, *TSP 2020 6467-6480*
- Antenna phased arrays**
- Frequency Diverse Array Radar: New Results and Discrete Fourier Transform Based Beamforming. *Zubair, M.*, +, *TSP 2020 2670-2681*
- Hybrid Beamforming for Active Sensing Using Sparse Arrays. *Rajamaki, R.*, +, *TSP 2020 6402-6417*
- Antenna radiation patterns**
- Frequency Diverse Array Radar: New Results and Discrete Fourier Transform Based Beamforming. *Zubair, M.*, +, *TSP 2020 2670-2681*
- The Extended Manifold for Antenna Arrays. *Friedlander, B.*, *TSP 2020 493-502*
- Approximation theory**
- A Dimension Reduction-Based Joint Activity Detection and Channel Estimation Algorithm for Massive Access. *Shao, X.*, +, *TSP 2020 420-435*
- A Low-Rank Tensor Dictionary Learning Method for Hyperspectral Image Denoising. *Gong, X.*, +, *TSP 2020 1168-1180*
- A Method for Reducing the Performance Gap Between Non-Coherent and Coherent Sub-Arrays. *Tirer, T.*, +, *TSP 2020 3358-3370*
- Adaptation and Learning Over Networks Under Subspace Constraints—Part II: Performance Analysis. *Nassif, R.*, +, *TSP 2020 2948-2962*
- Analysis of the SNR Loss Distribution With Covariance Mismatched Training Samples. *Besson, O.*, *TSP 2020 5759-5768*
- Approximation Algorithms for Training One-Node ReLU Neural Networks. *Dey, S.S.*, +, *TSP 2020 6696-6706*
- Bayesian Cooperative Localization Using Received Signal Strength With Unknown Path Loss Exponent: Message Passing Approaches. *Jin, D.*, +, *TSP 2020 1120-1135*
- Blind Deconvolution Using Modulated Inputs. *Ahmed, A.*, *TSP 2020 374-387*
- Computationally Efficient Distributed Multi-Sensor Fusion With Multi-Bernoulli Filter. *Yi, W.*, +, *TSP 2020 241-256*
- Cooperative Activity Detection: Sourced and Unsourced Massive Random Access Paradigms. *Shao, X.*, +, *TSP 2020 6578-6593*
- Data-Driven Structured Noise Filtering via Common Dynamics Estimation. *Markovsky, I.*, +, *TSP 2020 3064-3073*
- Dictionary Learning With BLOTLESS Update. *Yu, Q.*, +, *TSP 2020 1635-1645*
- Distributed Approximate Newton's Method Robust to Byzantine Attackers. *Cao, X.*, +, *TSP 2020 6011-6025*
- Distributed Nonlinear Estimation Over Unbalanced Directed Networks. *Meng, M.*, +, *TSP 2020 6212-6223*
- Dynamic Sensor Subset Selection for Centralized Tracking of an IID Process. *Chattopadhyay, A.*, +, *TSP 2020 3209-3224*
- Efficient Low-Rank Approximation of Matrices Based on Randomized Pivoted Decomposition. *Kaloorazi, M.F.*, +, *TSP 2020 3575-3589*
- Fast Graph Sampling Set Selection Using Gershgorin Disc Alignment. *Bai, Y.*, +, *TSP 2020 2419-2434*
- Fusion of Labeled RFS Densities With Minimum Information Loss. *Gao, L.*, +, *TSP 2020 5855-5868*
- High-Dimensional Nonconvex Stochastic Optimization by Doubly Stochastic Successive Convex Approximation. *Mokhtari, A.*, +, *TSP 2020 6287-6302*
- Hybrid Block Successive Approximation for One-Sided Non-Convex Min-Max Problems: Algorithms and Applications. *Lu, S.*, +, *TSP 2020 3676-3691*
- Hyperspectral Super-Resolution With Coupled Tucker Approximation: Recoverability and SVD-Based Algorithms. *Prevost, C.*, +, *TSP 2020 931-946*
- Improved Most Likely Heteroscedastic Gaussian Process Regression via Bayesian Residual Moment Estimator. *Zhang, Q.*, +, *TSP 2020 3450-3460*
- Inexact Block Coordinate Descent Algorithms for Nonsmooth Nonconvex Optimization. *Yang, Y.*, +, *TSP 2020 947-961*
- Joint Channel and Location Estimation of Massive MIMO System With Phase Noise. *Zheng, X.*, +, *TSP 2020 2598-2612*
- Joint Design of Surveillance Radar and MIMO Communication in Cluttered Environments. *Grossi, E.*, +, *TSP 2020 1544-1557*
- Large Intelligent Surface Aided Physical Layer Security Transmission. *Feng, B.*, +, *TSP 2020 5276-5291*
- Linear Multiple Low-Rank Kernel Based Stationary Gaussian Processes Regression for Time Series. *Yin, F.*, +, *TSP 2020 5260-5275*
- Maximum Likelihood Detection in the Presence of Non-Gaussian Jamming. *Almahorg, K.A.*, +, *TSP 2020 5722-5735*
- Min-Max Metric for Spectrally Compatible Waveform Design Via Log-Exponential Smoothing. *Fan, W.*, +, *TSP 2020 1075-1090*
- Model-Free Learning of Optimal Ergodic Policies in Wireless Systems. *Kalogieras, D.S.*, +, *TSP 2020 6272-6286*
- Multi-Group Multicast Beamforming: Optimal Structure and Efficient Algorithms. *Dong, M.*, +, *TSP 2020 3738-3753*
- Multi-Pattern Recognition Through Maximization of Signal-to-Peak-Interference Ratio With Application to Neural Spike Sorting. *Wouters, J.*, +, *TSP 2020 6240-6254*
- Multi-UAV Interference Coordination via Joint Trajectory and Power Control. *Shen, C.*, +, *TSP 2020 843-858*
- Network Dissensus via Distributed ADMM. *Kumar, C.*, +, *TSP 2020 2287-2301*
- Non-Parametric Decomposition of Pulse Pile-Up Under Gaussian Noise With Finite Data Sets. *McLean, C.*, +, *TSP 2020 2114-2127*
- Online Trajectory and Radio Resource Optimization of Cache-Enabled UAV Wireless Networks With Content and Energy Recharging. *Chai, S.*, +, *TSP 2020 1286-1299*
- Online Trajectory Optimization Using Inexact Gradient Feedback for Time-Varying Environments. *Nutalapati, M.K.*, +, *TSP 2020 4824-4838*
- Parametric Sparse Bayesian Dictionary Learning for Multiple Sources Localization With Propagation Parameters Uncertainty. *You, K.*, +, *TSP 2020 4194-4209*
- Penalty Dual Decomposition Method for Nonsmooth Nonconvex Optimization—Part II: Applications. *Shi, Q.*, +, *TSP 2020 4242-4257*
- Practical Dynamic SC-Flip Polar Decoders: Algorithm and Implementation. *Ercan, F.*, +, *TSP 2020 5441-5456*
- Quadratic Matrix Inequality Approach to Robust Adaptive Beamforming for General-Rank Signal Model. *Huang, Y.*, +, *TSP 2020 2244-2255*
- Quadratic Optimization for Unimodular Sequence Design via an ADPM Framework. *Yu, X.*, +, *TSP 2020 3619-3634*
- Riemannian Geometric Optimization Methods for Joint Design of Transmit Sequence and Receive Filter on MIMO Radar. *Li, J.*, +, *TSP 2020 5602-5616*
- Robust Cell-Load Learning With a Small Sample Set. *Awan, D.A.*, +, *TSP 2020 270-283*
- Single-Pulse Simultaneous Target Detection and Angle Estimation in a Multichannel Phased Array Radar. *Aubry, A.*, +, *TSP 2020 6649-6664*
- Solving Complex Quadratic Systems With Full-Rank Random Matrices. *Huang, S.*, +, *TSP 2020 4782-4796*
- Stability Analysis of  $\ell_{\infty}$ -Norm Based Convolutional Sparse Coding Using Stripe Coherence. *Fu, Y.*, +, *TSP 2020 5810-5823*
- Student's t-VAR Modeling With Missing Data Via Stochastic EM and Gibbs Sampling. *Zhou, R.*, +, *TSP 2020 6198-6211*
- Tracking Multiple Maneuvering Targets Hidden in the DBZ Based on the MM-GLMB Filter. *Wu, W.*, +, *TSP 2020 2912-2924*
- Turing Meets Shannon: Computable Sampling Type Reconstruction With Error Control. *Boche, H.*, +, *TSP 2020 6350-6365*
- Variational Bayesian Estimation of Statistical Properties of Composite Gamma Log-Normal Distribution. *Turlapaty, A.C.*, *TSP 2020 6481-6492*
- Widely Linear Quaternion-Valued Least-Mean Kurtosis Algorithm. *Menguc, E.C.*, +, *TSP 2020 5914-5922*
- Array signal processing**
- A Block Sparsity Based Estimator for mmWave Massive MIMO Channels With Beam Squint. *Wang, M.*, +, *TSP 2020 49-64*

- A Framework of Robust Transmission Design for IRS-Aided MISO Communications With Imperfect Cascaded Channels. *Zhou, G.*, +, *TSP 2020 5092-5106*
- A Method for Reducing the Performance Gap Between Non-Coherent and Coherent Sub-Arrays. *Tirer, T.*, +, *TSP 2020 3358-3370*
- An Asymptotically Efficient Weighted Least Squares Estimator for Co-Array-Based DoA Estimation. *Sedighi, S.*, +, *TSP 2020 589-604*
- Aperture-Level Simultaneous Transmit and Receive With Digital Phased Arrays. *Cummings, I.T.*, +, *TSP 2020 1243-1258*
- Asymptotically Optimal Blind Calibration of Uniform Linear Sensor Arrays for Narrowband Gaussian Signals. *Weiss, A.*, +, *TSP 2020 5322-5333*
- Beamspace Direct Localization for Large-Scale Antenna Array Systems. *Zhao, H.*, +, *TSP 2020 3529-3544*
- Calibration of Phase Shifter Network for Hybrid Beamforming in mmWave Massive MIMO Systems. *Wei, X.*, +, *TSP 2020 2302-2315*
- Components Separation Algorithm for Localization and Classification of Mixed Near-Field and Far-Field Sources in Multipath Propagation. *Molaei, A.M.*, +, *TSP 2020 404-419*
- Configuration Optimization and Channel Estimation in Hybrid Beamforming mmWave Systems With Channel Support Side Information. *Lian, L.*, +, *TSP 2020 6026-6039*
- Convolutional Beamspace for Linear Arrays. *Chen, P.*, +, *TSP 2020 5395-5410*
- Digital Predistortion for Multiuser Hybrid MIMO at mmWaves. *Brihuega, A.*, +, *TSP 2020 3603-3618*
- Efficient and Unambiguous Two-Target Resolution via Subarray-Based Four-Channel Monopulse. *Wang, S.L.*, +, *TSP 2020 885-900*
- Fast Algorithms for Joint Multicast Beamforming and Antenna Selection in Massive MIMO. *Ibrahim, M.S.*, +, *TSP 2020 1897-1909*
- Frequency Diverse Array Radar: New Results and Discrete Fourier Transform Based Beampattern. *Zubair, M.*, +, *TSP 2020 2670-2681*
- Group Sparsity Based Localization for Far-Field and Near-Field Sources Based on Distributed Sensor Array Networks. *Shen, Q.*, +, *TSP 2020 6493-6508*
- Hybrid Beamforming for Active Sensing Using Sparse Arrays. *Rajamaki, R.*, +, *TSP 2020 6402-6417*
- Intelligent Reflecting Surface Aided Multigroup Multicast MISO Communication Systems. *Zhou, G.*, +, *TSP 2020 3236-3251*
- Joint Source and Sensor Localization by Angles of Arrival. *Le, T.*, +, *TSP 2020 6521-6534*
- Joint Transmit Beamforming for Multiuser MIMO Communications and MIMO Radar. *Liu, X.*, +, *TSP 2020 3929-3944*
- Majorization-Minimization Aided Hybrid Transceivers for MIMO Interference Channels. *Gong, S.*, +, *TSP 2020 4903-4918*
- Multi-Group Multicast Beamforming: Optimal Structure and Efficient Algorithms. *Dong, M.*, +, *TSP 2020 3738-3753*
- Multi-Stage Antenna Selection for Adaptive Beamforming in MIMO Radar. *Nosrati, H.*, +, *TSP 2020 1374-1389*
- Nonsmooth Optimization Algorithms for Multicast Beamforming in Content-Centric Fog Radio Access Networks. *Nguyen, H.T.*, +, *TSP 2020 1455-1469*
- Padded Coprime Arrays for Improved DOA Estimation: Exploiting Hole Representation and Filling Strategies. *Zheng, W.*, +, *TSP 2020 4597-4611*
- Penalty Dual Decomposition Method for Nonsmooth Nonconvex Optimization—Part II: Applications. *Shi, Q.*, +, *TSP 2020 4242-4257*
- Performance of Analog Beamforming Systems With Optimized Phase Noise Compensation. *Ratnam, V.V.*, *TSP 2020 5334-5348*
- Persymmetric Adaptive Detection of Distributed Targets With Unknown Steering Vectors. *Liu, J.*, +, *TSP 2020 4123-4134*
- Phase-Only Robust Minimum Dispersion Beamforming. *Jiang, X.*, +, *TSP 2020 5664-5679*
- Quadratic Matrix Inequality Approach to Robust Adaptive Beamforming for General-Rank Signal Model. *Huang, Y.*, +, *TSP 2020 2244-2255*
- Quadratic Semidefinite Programming for Waveform-Constrained Joint Filter-Signal Design in STAP. *O'Rourke, S.M.*, +, *TSP 2020 1744-1759*
- Radio Transient Detection in Radio Astronomical Arrays. *Antman, A.*, +, *TSP 2020 5648-5663*
- Robust Adaptive Beamforming Based on Linearly Modified Atomic-Norm Minimization With Target Contaminated Data. *Zhang, X.*, +, *TSP 2020 5138-5151*
- Robust Beamforming for NOMA-Based Cellular Massive IoT With SWIPT. *Qi, Q.*, +, *TSP 2020 211-224*
- Scale-Invariant Subspace Detectors Based on First- and Second-Order Statistical Models. *Santamaria, I.*, +, *TSP 2020 6432-6443*
- Single-Pulse Simultaneous Target Detection and Angle Estimation in a Multichannel Phased Array Radar. *Aubry, A.*, +, *TSP 2020 6649-6664*
- Subspace-Based Near-Field Source Localization in Unknown Spatially Non-uniform Noise Environment. *Zuo, W.*, +, *TSP 2020 4713-4726*
- Two-Channel Passive Detection of Cyclostationary Signals. *Horstmann, S.*, +, *TSP 2020 2340-2355*
- Two-Step Codeword Design for Millimeter Wave Massive MIMO Systems With Quantized Phase Shifters. *Chen, K.*, +, *TSP 2020 170-180*
- Art**
- Source Separation With Side Information Based on Gaussian Mixture Models With Application in Art Investigation. *Sabetsarvestani, Z.*, +, *TSP 2020 558-572*
- Artificial satellites**
- Topological Sweep for Multi-Target Detection of Geostationary Space Objects. *Liu, D.*, +, *TSP 2020 5166-5177*
- Asset management**
- Understanding the Quintile Portfolio. *Zhou, R.*, +, *TSP 2020 4030-4040*
- Attitude measurement**
- Precise 3-D GNSS Attitude Determination Based on Riemannian Manifold Optimization Algorithms. *Douik, A.*, +, *TSP 2020 284-299*
- Audio signal processing**
- A Provably Correct and Robust Algorithm for Convolutional Nonnegative Matrix Factorization. *Degleris, A.*, +, *TSP 2020 2499-2512*
- Blind Audio Source Separation With Minimum-Volume Beta-Divergence NMF. *Leplat, V.*, +, *TSP 2020 3400-3410*
- Performance Bounds for Complex-Valued Independent Vector Analysis. *Kautsky, V.*, +, *TSP 2020 4258-4267*
- Automatic optical inspection**
- Defect Detection and Classification by Training a Generic Convolutional Neural Network Encoder. *Dong, X.*, +, *TSP 2020 6055-6069*
- Autonomous aerial vehicles**
- Multi-UAV Interference Coordination via Joint Trajectory and Power Control. *Shen, C.*, +, *TSP 2020 843-858*
- Online Trajectory and Radio Resource Optimization of Cache-Enabled UAV Wireless Networks With Content and Energy Recharging. *Chai, S.*, +, *TSP 2020 1286-1299*
- Autoregressive processes**
- A Statistical Time-Frequency Model for Non-stationary Time Series Analysis. *Luo, Y.*, +, *TSP 2020 4757-4772*
- Frequency-Domain Prony Method for Autoregressive Model Identification and Sinusoidal Parameter Estimation. *Ando, S.*, *TSP 2020 3461-3470*
- Multiple Change Points Detection in Low Rank and Sparse High Dimensional Vector Autoregressive Models. *Bai, P.*, +, *TSP 2020 3074-3089*
- Student's t-VAR Modeling With Missing Data Via Stochastic EM and Gibbs Sampling. *Zhou, R.*, +, *TSP 2020 6198-6211*
- The Autoregressive Linear Mixture Model: A Time-Series Model for an Instantaneous Mixture of Network Processes. *Bohannon, A.W.*, +, *TSP 2020 4481-4496*

## B

### Backpropagation

Invariance-Preserving Localized Activation Functions for Graph Neural Networks. *Ruiz, L.*, +, *TSP 2020 127-141*

### Bandlimited signals

Convolution Idempotents With a Given Zero-Set. *Siripuram, A.*, +, *TSP 2020 4773-4781*

Reconstructing Classes of Non-Bandlimited Signals From Time Encoded Information. *Alexandru, R.*, +, *TSP 2020 747-763*

Sampling and Reconstruction of Bandlimited Signals With Multi-Channel Time Encoding. *Adam, K.*, +, *TSP 2020 1105-1119*

Turing Meets Shannon: Computable Sampling Type Reconstruction With Error Control. *Boche, H.*, +, *TSP 2020 6350-6365*

#### Bayes methods

A Simple Derivation of AMP and its State Evolution via First-Order Cancellation. *Schniter, P.*, *TSP 2020 4283-4292*

A Variational Bayes Approach to Adaptive Radio Tomography. *Lee, D.*, +, *TSP 2020 3779-3792*

Bayes-Optimal MMSE Detector for Massive MIMO Relaying With Low-Precision ADCs/DACs. *Yang, X.*, +, *TSP 2020 3341-3357*

Bayesian Cooperative Localization Using Received Signal Strength With Unknown Path Loss Exponent: Message Passing Approaches. *Jin, D.*, +, *TSP 2020 1120-1135*

Bayesian Methods for Multiple Change-Point Detection With Reduced Communication. *Nitzan, E.*, +, *TSP 2020 4871-4886*

Bayesian Nonnegative Matrix Factorization With Dirichlet Process Mixtures. *Li, C.*, +, *TSP 2020 3860-3870*

Bayesian Spatial Field Reconstruction With Unknown Distortions in Sensor Networks. *Xiang, Q.*, +, *TSP 2020 4336-4351*

Brain Decoding of Viewed Image Categories via Semi-Supervised Multi-View Bayesian Generative Model. *Akamatsu, Y.*, +, *TSP 2020 5769-5781*

Collaborative Sequential State Estimation Under Unknown Heterogeneous Noise Covariance Matrices. *Dedecius, K.*, +, *TSP 2020 5365-5378*

Configuration Optimization and Channel Estimation in Hybrid Beamforming mmWave Systems With Channel Support Side Information. *Lian, L.*, +, *TSP 2020 6026-6039*

Extended Object Tracking Using Random Matrix With Skewness. *Zhang, L.*, +, *TSP 2020 5107-5121*

Fusion of Labeled RFS Densities With Minimum Information Loss. *Gao, L.*, +, *TSP 2020 5855-5868*

Graph Signal Processing in the Presence of Topology Uncertainties. *Ceci, E.*, +, *TSP 2020 1558-1573*

Graph-Adaptive Semi-Supervised Tracking of Dynamic Processes Over Switching Network Modes. *Lu, Q.*, +, *TSP 2020 2586-2597*

Identifying Cognitive Radars - Inverse Reinforcement Learning Using Revealed Preferences. *Krishnamurthy, V.*, +, *TSP 2020 4529-4542*

Improved Most Likely Heteroscedastic Gaussian Process Regression via Bayesian Residual Moment Estimator. *Zhang, Q.*, +, *TSP 2020 3450-3460*

Inverse Filtering for Hidden Markov Models With Applications to Counter-Adversarial Autonomous Systems. *Mattila, R.*, +, *TSP 2020 4987-5002*

Learning to Bound the Multi-Class Bayes Error. *Sekeh, S.Y.*, +, *TSP 2020 3793-3807*

Linear Multiple Low-Rank Kernel Based Stationary Gaussian Processes Regression for Time Series. *Yin, F.*, +, *TSP 2020 5260-5275*

Majorize-Minimize Adapted Metropolis-Hastings Algorithm. *Marnissi, Y.*, +, *TSP 2020 2356-2369*

Model-Based Robust Filtering and Experimental Design for Stochastic Differential Equation Systems. *Zhao, G.*, +, *TSP 2020 3849-3859*

Multi-Class Random Matrix Filtering for Adaptive Learning. *Braca, P.*, +, *TSP 2020 359-373*

Multilabel Classification With Multivariate Time Series Predictors. *Che, Y.*, +, *TSP 2020 5696-5705*

Multiple Bayesian Filtering as Message Passing. *Vitetta, G.M.*, +, *TSP 2020 1002-1020*

Non-Bayesian Social Learning With Uncertain Models. *Hare, J.Z.*, +, *TSP 2020 4178-4193*

On the Convergence of a Bayesian Algorithm for Joint Dictionary Learning and Sparse Recovery. *Joseph, G.*, +, *TSP 2020 343-358*

Parametric Sparse Bayesian Dictionary Learning for Multiple Sources Localization With Propagation Parameters Uncertainty. *You, K.*, +, *TSP 2020 4194-4209*

Sherman-Morrison Formula Aided Adaptive Channel Estimation for Underwater Visible Light Communication With Fractionally-Sampled OFDM. *Chen, J.*, +, *TSP 2020 2784-2798*

Soft Symbol Decoding in Sweep-Spread-Carrier Underwater Acoustic Communications: A Novel Variational Bayesian Algorithm and Its Analysis. *Arunkumar, K.P.*, +, *TSP 2020 2435-2448*

Sparse Bayesian DOA Estimation Using Hierarchical Synthesis Lasso Priors for Off-Grid Signals. *Yang, J.*, +, *TSP 2020 872-884*

Sparse Bayesian Learning With Dynamic Filtering for Inference of Time-Varying Sparse Signals. *O'Shaughnessy, M.R.*, +, *TSP 2020 388-403*

Sparse Robust Learning From Flipped Bits. *Liu, Z.*, +, *TSP 2020 4407-4421*

Student's t- $\text{VAR}$  Modeling With Missing Data Via Stochastic EM and Gibbs Sampling. *Zhou, R.*, +, *TSP 2020 6198-6211*

Tracking Multiple Maneuvering Targets Hidden in the DBZ Based on the MM-GLMB Filter. *Wu, W.*, +, *TSP 2020 2912-2924*

Tunable Adaptive Target Detection With Kernels in Colocated MIMO Radar. *Zaimbashi, A.*, +, *TSP 2020 1500-1514*

Variance State Propagation for Structured Sparse Bayesian Learning. *Zhang, M.*, +, *TSP 2020 2386-2400*

Variational Bayesian Estimation of Statistical Properties of Composite Gamma Log-Normal Distribution. *Turlapaty, A.C.*, *TSP 2020 6481-6492*

Variational Temporal Deep Generative Model for Radar HRRP Target Recognition. *Guo, D.*, +, *TSP 2020 5795-5809*

#### Beam steering

Joint Waveform and Receiver Design for Co-Channel Hybrid Active-Passive Sensing With Timing Uncertainty. *Wang, F.*, +, *TSP 2020 466-477*

#### Belief networks

Variational Temporal Deep Generative Model for Radar HRRP Target Recognition. *Guo, D.*, +, *TSP 2020 5795-5809*

#### Belief propagation

A Simple Derivation of AMP and its State Evolution via First-Order Cancellation. *Schniter, P.*, *TSP 2020 4283-4292*

#### Big Data

Distributed Approximate Newton's Method Robust to Byzantine Attackers. *Cao, X.*, +, *TSP 2020 6011-6025*

Learning Nonnegative Factors From Tensor Data: Probabilistic Modeling and Inference Algorithm. *Cheng, L.*, +, *TSP 2020 1792-1806*

Making Decisions by Unlabeled Bits. *Marano, S.*, +, *TSP 2020 2935-2947*

Target Localization by Unlabeled Range Measurements. *Wang, G.*, +, *TSP 2020 6607-6620*

#### Binary codes

Constructions of Cross Z-Complementary Pairs With New Lengths. *Adhikary, A.R.*, +, *TSP 2020 4700-4712*

Efficient QP-ADMM Decoder for Binary LDPC Codes and Its Performance Analysis. *Bai, J.*, +, *TSP 2020 503-518*

#### Binary sequences

Binary Sequence Set Design for Interferer Rejection in Multi-Branch Modulation. *Mo, D.*, +, *TSP 2020 3769-3778*

Constructions of Cross Z-Complementary Pairs With New Lengths. *Adhikary, A.R.*, +, *TSP 2020 4700-4712*

#### Bioinformatics

Distributions and Power of Optimal Signal-Detection Statistics in Finite Case. *Zhang, H.*, +, *TSP 2020 1021-1033*

#### Biology computing

Tensor Graph Convolutional Networks for Multi-Relational and Robust Learning. *Ioannidis, V.N.*, +, *TSP 2020 6535-6546*

#### Biomechanics

Real-Time Embedded EMG Signal Analysis for Wrist-Hand Pose Identification. *Raurale, S.A.*, +, *TSP 2020 2713-2723*

#### Biomedical MRI

Brain Decoding of Viewed Image Categories via Semi-Supervised Multi-View Bayesian Generative Model. *Akamatsu, Y.*, +, *TSP 2020 5769-5781*

Compressive Sensing Using Iterative Hard Thresholding With Low Precision Data Representation: Theory and Applications. *Gurel, N.M.*, +, *TSP 2020 4268-4282*

Tensor Completion From Regular Sub-Nyquist Samples. *Kanatsoulis, C.I.*, +, *TSP 2020 1-16*

#### Blind source separation

A Unified Probabilistic View on Spatially Informed Source Separation and Extraction Based on Independent Vector Analysis. *Brendel, A.*, +, *TSP 2020 3545-3558*

Alternating Group Lasso for Block-Term Tensor Decomposition and Application to ECG Source Separation. *Goulart, J.H.d.M.*, +, *TSP 2020 2682-2696*

- Bayesian Nonnegative Matrix Factorization With Dirichlet Process Mixtures. *Li, C.*, +, *TSP 2020 3860-3870*
- Blind Audio Source Separation With Minimum-Volume Beta-Divergence NMF. *Leplat, V.*, +, *TSP 2020 3400-3410*
- Cramér–Rao Bounds for Complex-Valued Independent Component Extraction: Determined and Piecewise Determined Mixing Models. *Kautsky, V.*, +, *TSP 2020 5230-5243*
- Directional Sparse Filtering for Blind Estimation of Under-Determined Complex-Valued Mixing Matrices. *Nguyen, A.H.T.*, +, *TSP 2020 1990-2003*
- Estimating Network Processes via Blind Identification of Multiple Graph Filters. *Zhu, Y.*, +, *TSP 2020 3049-3063*
- Hyperspectral Super-Resolution With Coupled Tucker Approximation: Recoverability and SVD-Based Algorithms. *Prevost, C.*, +, *TSP 2020 931-946*
- Identifiability Conditions for Compressive Multichannel Blind Deconvolution. *Mulleti, S.*, +, *TSP 2020 4627-4642*
- Performance Bounds for Complex-Valued Independent Vector Analysis. *Kautsky, V.*, +, *TSP 2020 4258-4267*
- Quaternion Non-Negative Matrix Factorization: Definition, Uniqueness, and Algorithm. *Flamant, J.*, +, *TSP 2020 1870-1883*
- Source Separation With Side Information Based on Gaussian Mixture Models With Application in Art Investigation. *Sabetsarvestani, Z.*, +, *TSP 2020 558-572*

#### Body sensor networks

- Low-Complexity On-Demand Reconstruction for Compressively Sensed Problematic Signals. *Chou, C.*, +, *TSP 2020 4094-4107*

#### Boolean functions

- Constructions of Cross Z-Complementary Pairs With New Lengths. *Adhikary, A.R.*, +, *TSP 2020 4700-4712*

#### Brain

- Brain Decoding of Viewed Image Categories via Semi-Supervised Multi-View Bayesian Generative Model. *Akamatsu, Y.*, +, *TSP 2020 5769-5781*
- Compressive Sensing Using Iterative Hard Thresholding With Low Precision Data Representation: Theory and Applications. *Gurel, N.M.*, +, *TSP 2020 4268-4282*
- Multitaper Analysis of Semi-Stationary Spectra From Multivariate Neuronal Spiking Observations. *Rupasinghe, A.*, +, *TSP 2020 4382-4396*

#### Broadband networks

- Compressive Sensing-Based Adaptive Active User Detection and Channel Estimation: Massive Access Meets Massive MIMO. *Ke, M.*, +, *TSP 2020 764-779*

#### Broadcast antennas

- Penalty Dual Decomposition Method for Nonsmooth Nonconvex Optimization—Part II: Applications. *Shi, Q.*, +, *TSP 2020 4242-4257*

#### Broadcast communication

- Penalty Dual Decomposition Method for Nonsmooth Nonconvex Optimization—Part II: Applications. *Shi, Q.*, +, *TSP 2020 4242-4257*

## C

#### Cache storage

- Online Trajectory and Radio Resource Optimization of Cache-Enabled UAV Wireless Networks With Content and Energy Recharging. *Chai, S.*, +, *TSP 2020 1286-1299*

#### Calculus

- Widely Linear Quaternion-Valued Least-Mean Kurtosis Algorithm. *Menguc, E.C.*, +, *TSP 2020 5914-5922*

#### Calibration

- Asymptotically Optimal Blind Calibration of Uniform Linear Sensor Arrays for Narrowband Gaussian Signals. *Weiss, A.*, +, *TSP 2020 5322-5333*
- Radio Transient Detection in Radio Astronomical Arrays. *Antman, A.*, +, *TSP 2020 5648-5663*

#### Cartography

- Spectrum Cartography via Coupled Block-Term Tensor Decomposition. *Zhang, G.*, +, *TSP 2020 3660-3675*

#### Cellular radio

- Robust Beamforming for NOMA-Based Cellular Massive IoT With SWIPT. *Qi, Q.*, +, *TSP 2020 211-224*
- Robust Cell-Load Learning With a Small Sample Set. *Awan, D.A.*, +, *TSP 2020 270-283*

#### Channel bank filters

- A Tensor-Based Approach to Joint Channel Estimation/Data Detection in Flexible Multicarrier MIMO Systems. *Kofidis, E.*, *TSP 2020 3179-3193*
- Analysis of Different Rational Decimated Filter Banks Derived From the Same Set of Prototype Filters. *V, H.*, +, *TSP 2020 1923-1936*
- New Optimal Z-Complementary Code Sets Based on Generalized Paraunitary Matrices. *Das, S.*, +, *TSP 2020 5546-5558*
- Novel Short-Time Fractional Fourier Transform: Theory, Implementation, and Applications. *Shi, J.*, +, *TSP 2020 3280-3295*
- Two Dimensional Efficient Multiplier-Less Structures of Möbius Function for Ramanujan Filter Banks. *Pei, S.*, +, *TSP 2020 5079-5091*

#### Channel capacity

- Communication Under Channel Uncertainty: An Algorithmic Perspective and Effective Construction. *Boche, H.*, +, *TSP 2020 6224-6239*
- Robust SINR-Constrained Symbol-Level Multiuser Precoding With Imperfect Channel Knowledge. *Haqiqatnejad, A.*, +, *TSP 2020 1837-1852*

#### Channel coding

- Blind Recognition of Cyclic Codes Based on Average Cosine Conformity. *Wu, Z.*, +, *TSP 2020 2328-2339*
- Communication Under Channel Uncertainty: An Algorithmic Perspective and Effective Construction. *Boche, H.*, +, *TSP 2020 6224-6239*
- Denial-of-Service Attacks on Communication Systems: Detectability and Jammer Knowledge. *Boche, H.*, +, *TSP 2020 3754-3768*
- Practical Dynamic SC-Flip Polar Decoders: Algorithm and Implementation. *Ercan, F.*, +, *TSP 2020 5441-5456*
- Sampling and Reconstruction of Bandlimited Signals With Multi-Channel Time Encoding. *Adam, K.*, +, *TSP 2020 1105-1119*
- Soft Symbol Decoding in Sweep-Spread-Carrier Underwater Acoustic Communications: A Novel Variational Bayesian Algorithm and Its Analysis. *Arunkumar, K.P.*, +, *TSP 2020 2435-2448*
- Two-Step Codeword Design for Millimeter Wave Massive MIMO Systems With Quantized Phase Shifters. *Chen, K.*, +, *TSP 2020 170-180*

#### Channel estimation

- A Block Sparsity Based Estimator for mmWave Massive MIMO Channels With Beam Squint. *Wang, M.*, +, *TSP 2020 49-64*
- A Dimension Reduction-Based Joint Activity Detection and Channel Estimation Algorithm for Massive Access. *Shao, X.*, +, *TSP 2020 420-435*
- A Framework of Robust Transmission Design for IRS-Aided MISO Communications With Imperfect Cascaded Channels. *Zhou, G.*, +, *TSP 2020 5092-5106*
- A Grant-Free Method for Massive Machine-Type Communication With Backward Activity Level Estimation. *Xiao, H.*, +, *TSP 2020 6665-6680*
- A Spatial-Temporal Subspace-Based Compressive Channel Estimation Technique in Unknown Interference MIMO Channels. *Takano, Y.*, +, *TSP 2020 300-313*
- A Tensor-Based Approach to Joint Channel Estimation/Data Detection in Flexible Multicarrier MIMO Systems. *Kofidis, E.*, *TSP 2020 3179-3193*
- Blind Channel Estimation for Downlink Massive MIMO Systems With Imperfect Channel Reciprocity. *Chopra, R.*, +, *TSP 2020 3132-3145*
- Channel Estimation: Unified View of Optimal Performance and Pilot Sequences. *Le Magoarou, L.*, +, *TSP 2020 5588-5601*
- Communication Under Channel Uncertainty: An Algorithmic Perspective and Effective Construction. *Boche, H.*, +, *TSP 2020 6224-6239*
- Compressive Sensing-Based Adaptive Active User Detection and Channel Estimation: Massive Access Meets Massive MIMO. *Ke, M.*, +, *TSP 2020 764-779*
- Configuration Optimization and Channel Estimation in Hybrid Beamforming mmWave Systems With Channel Support Side Information. *Lian, L.*, +, *TSP 2020 6026-6039*
- Constructions of Cross Z-Complementary Pairs With New Lengths. *Adhikary, A.R.*, +, *TSP 2020 4700-4712*
- Cross Z-Complementary Pairs for Optimal Training in Spatial Modulation Over Frequency Selective Channels. *Liu, Z.*, +, *TSP 2020 1529-1543*
- CSI-Independent Non-Linear Signal Detection in Molecular Communications. *Li, B.*, +, *TSP 2020 97-112*
- Frame Repetition: A Solution to Imaginary Interference Cancellation in FBMC/OQAM Systems. *Kong, D.*, +, *TSP 2020 1259-1273*

- Joint Channel and Location Estimation of Massive MIMO System With Phase Noise. *Zheng, X.*, +, *TSP 2020 2598-2612*
- Model-Driven Deep Learning for MIMO Detection. *He, H.*, +, *TSP 2020 1702-1715*
- Multi-Channel Factor Analysis With Common and Unique Factors. *Ramirez, D.*, +, *TSP 2020 113-126*
- Optimal Pilots for Anti-Eavesdropping Channel Estimation. *Zhu, Q.*, +, *TSP 2020 2629-2644*
- Partially Coherent Compressive Phase Retrieval for Millimeter-Wave Massive MIMO Channel Estimation. *Hu, C.*, +, *TSP 2020 1673-1687*
- Sherman-Morrison Formula Aided Adaptive Channel Estimation for Underwater Visible Light Communication With Fractionally-Sampled OFDM. *Chen, J.*, +, *TSP 2020 2784-2798*
- Tune Smarter Not Harder: A Principled Approach to Tuning Learning Rates for Shallow Nets. *Tholeti, T.*, +, *TSP 2020 5063-5078*
- Chaotic communication**
- Two-Dimensional Modular Chaotification System for Improving Chaos Complexity. *Hua, Z.*, +, *TSP 2020 1937-1949*
- Clocks**
- Exploring Positive Noise in Estimation Theory. *Radnosrati, K.*, +, *TSP 2020 3590-3602*
- Cloud computing**
- An Online Learning Algorithm for Distributed Task Offloading in Multi-Access Edge Computing. *Sun, Z.*, +, *TSP 2020 3090-3102*
- Cloud-Assisted Cooperative Localization for Vehicle Platoons: A Turbo Approach. *Liu, A.*, +, *TSP 2020 605-620*
- Clutter**
- Nearly Optimal Adaptive Sequential Tests for Object Detection. *Tartakovsky, A.G.*, +, *TSP 2020 3371-3384*
- CMOS integrated circuits**
- Energy- and Area-Efficient Recursive-Conjugate-Gradient-Based MMSE Detector for Massive MIMO Systems. *Liu, L.*, +, *TSP 2020 573-588*
- Practical Dynamic SC-Flip Polar Decoders: Algorithm and Implementation. *Ercan, F.*, +, *TSP 2020 5441-5456*
- Cochannel interference**
- Robust Beamforming for NOMA-Based Cellular Massive IoT With SWIPT. *Qi, Q.*, +, *TSP 2020 211-224*
- Codes**
- New OptimalZ-Complementary Code Sets Based on Generalized Paraunitary Matrices. *Das, S.*, +, *TSP 2020 5546-5558*
- Cognition**
- Multitaper Analysis of Semi-Stationary Spectra From Multivariate Neuronal Spiking Observations. *Rupasinghe, A.*, +, *TSP 2020 4382-4396*
- Prospect Theoretic Utility Based Human Decision Making in Multi-Agent Systems. *Geng, B.*, +, *TSP 2020 1091-1104*
- Cognitive radio**
- Gaussian Process Reinforcement Learning for Fast Opportunistic Spectrum Access. *Yan, Z.*, +, *TSP 2020 2613-2628*
- Spectrum Cartography via Coupled Block-Term Tensor Decomposition. *Zhang, G.*, +, *TSP 2020 3660-3675*
- Coherence**
- Algorithms for Change Detection With Sparse Signals. *Jain, A.*, +, *TSP 2020 1331-1345*
- Collision avoidance**
- Multi-UAV Interference Coordination via Joint Trajectory and Power Control. *Shen, C.*, +, *TSP 2020 843-858*
- Combinatorial mathematics**
- Inverse Filtering for Hidden Markov Models With Applications to Counter-Adversarial Autonomous Systems. *Mattila, R.*, +, *TSP 2020 4987-5002*
- Sparse Array Design via Fractal Geometries. *Cohen, R.*, +, *TSP 2020 4797-4812*
- Topological Sweep for Multi-Target Detection of Geostationary Space Objects. *Liu, D.*, +, *TSP 2020 5166-5177*
- Combined source-channel coding**
- Distributed Sensing With Orthogonal Multiple Access: To Code or not to Code?. *Dong, Y.*, *TSP 2020 1315-1330*
- Communication complexity**
- A Provably Communication-Efficient Asynchronous Distributed Inference Method for Convex and Nonconvex Problems. *Ren, J.*, +, *TSP 2020 3325-3340*
- Blind Over-the-Air Computation and Data Fusion via Provable Wirtinger Flow. *Dong, J.*, +, *TSP 2020 1136-1151*
- Decentralized Accelerated Gradient Methods With Increasing Penalty Parameters. *Li, H.*, +, *TSP 2020 4855-4870*
- Denial-of-Service Attacks on Communication Systems: Detectability and Jammer Knowledge. *Boche, H.*, +, *TSP 2020 3754-3768*
- Joint Range and Velocity Estimation With Intrapulse and Intersubcarrier Doppler Effects for OFDM-Based RadCom Systems. *Zhang, F.*, +, *TSP 2020 662-675*
- Walkman: A Communication-Efficient Random-Walk Algorithm for Decentralized Optimization. *Mao, X.*, +, *TSP 2020 2513-2528*
- Compensation**
- AOA Pseudolinear Target Motion Analysis in the Presence of Sensor Location Errors. *Pang, F.*, +, *TSP 2020 3385-3399*
- Complex networks**
- Exact Blind Community Detection From Signals on Multiple Graphs. *Roddenberry, T.M.*, +, *TSP 2020 5016-5030*
- Compressed sensing**
- A Block Sparsity Based Estimator for mmWave Massive MIMO Channels With Beam Squint. *Wang, M.*, +, *TSP 2020 49-64*
- A Simple Derivation of AMP and its State Evolution via First-Order Cancellation. *Schniter, P.*, *TSP 2020 4283-4292*
- A Spatial-Temporal Subspace-Based Compressive Channel Estimation Technique in Unknown Interference MIMO Channels. *Takano, Y.*, +, *TSP 2020 300-313*
- Algorithms for Change Detection With Sparse Signals. *Jain, A.*, +, *TSP 2020 1331-1345*
- Bilinear Compressed Sensing Under Known Signs via Convex Programming. *Aghasi, A.*, +, *TSP 2020 6366-6379*
- Compressed Sensing Using Binary Matrices of Nearly Optimal Dimensions. *Lotfi, M.*, +, *TSP 2020 3008-3021*
- Compressive Sensing Using Iterative Hard Thresholding With Low Precision Data Representation: Theory and Applications. *Gurel, N.M.*, +, *TSP 2020 4268-4282*
- Compressive Sensing-Based Adaptive Active User Detection and Channel Estimation: Massive Access Meets Massive MIMO. *Ke, M.*, +, *TSP 2020 764-779*
- Configuration Optimization and Channel Estimation in Hybrid Beamforming mmWave Systems With Channel Support Side Information. *Lian, L.*, +, *TSP 2020 6026-6039*
- Convolutional Beamspace for Linear Arrays. *Chen, P.*, +, *TSP 2020 5395-5410*
- Deterministic Completion of Rectangular Matrices Using Asymmetric Ramanujan Graphs: Exact and Stable Recovery. *Burnwal, S.P.*, +, *TSP 2020 3834-3848*
- Distributed Compressive Sensing: Performance Analysis With Diverse Signal Ensembles. *Hsieh, S.*, +, *TSP 2020 3500-3514*
- Generalized Fixed-Point Continuation Method: Convergence and Application. *Xiao, P.*, +, *TSP 2020 5746-5758*
- Generative Models for Low-Dimensional Video Representation and Reconstruction. *Hyder, R.*, +, *TSP 2020 1688-1701*
- Gridless Parameter Estimation for One-Bit MIMO Radar With Time-Varying Thresholds. *Xi, F.*, +, *TSP 2020 1048-1063*
- Identifiability Conditions for Compressive Multichannel Blind Deconvolution. *Mulleti, S.*, +, *TSP 2020 4627-4642*
- Joint Channel and Location Estimation of Massive MIMO System With Phase Noise. *Zheng, X.*, +, *TSP 2020 2598-2612*
- Learning Proximal Operator Methods for Nonconvex Sparse Recovery with Theoretical Guarantee. *Yang, C.*, +, *TSP 2020 5244-5259*
- Low-Complexity On-Demand Reconstruction for Compressively Sensed Problematic Signals. *Chou, C.*, +, *TSP 2020 4094-4107*
- Lower Bound for RIP Constants and Concentration of Sum of Top Order Statistics. *Li, G.*, +, *TSP 2020 3169-3178*



- Model-Based Deep Learning for One-Bit Compressive Sensing. *Khobahi, S.*, +, *TSP 2020 5292-5307*
- Multi-Carrier Agile Phased Array Radar. *Huang, T.*, +, *TSP 2020 5706-5721*
- Newton-Step-Based Hard Thresholding Algorithms for Sparse Signal Recovery. *Meng, N.*, +, *TSP 2020 6594-6606*
- Partially Coherent Compressive Phase Retrieval for Millimeter-Wave Massive MIMO Channel Estimation. *Hu, C.*, +, *TSP 2020 1673-1687*
- PhaseEqual: Convex Phase Retrieval via Alternating Direction Method of Multipliers. *Wang, B.*, +, *TSP 2020 1274-1285*
- Sensing Matrix Design and Sparse Recovery on the Sphere and the Rotation Group. *Bangun, A.*, +, *TSP 2020 1439-1454*
- Signal-Dependent Performance Analysis of Orthogonal Matching Pursuit for Exact Sparse Recovery. *Wen, J.*, +, *TSP 2020 5031-5046*
- Stability Analysis of  $\ell_{0,\infty}$ -Norm Based Convolutional Sparse Coding Using Stripe Coherence. *Fu, Y.*, +, *TSP 2020 5810-5823*
- Sub-Nyquist Spectrum Sensing of Sparse Wideband Signals Using Low-Density Measurement Matrices. *Vasavada, Y.*, +, *TSP 2020 3723-3737*
- Uniform RIP Conditions for Recovery of Sparse Signals by  $\ell_p$  ( $0 < p \leq 1$ ) Minimization. *Wan, A.*, *TSP 2020 5379-5394*
- Variance State Propagation for Structured Sparse Bayesian Learning. *Zhang, M.*, +, *TSP 2020 2386-2400*
- Computability**
- Turing Computability of Fourier Transforms of Bandlimited and Discrete Signals. *Boche, H.*, +, *TSP 2020 532-547*
- Computational complexity**
- A Dimension Reduction-Based Joint Activity Detection and Channel Estimation Algorithm for Massive Access. *Shao, X.*, +, *TSP 2020 420-435*
- A Provably Correct and Robust Algorithm for Convolutional Nonnegative Matrix Factorization. *Degleris, A.*, +, *TSP 2020 2499-2512*
- A Spatial-Temporal Subspace-Based Compressive Channel Estimation Technique in Unknown Interference MIMO Channels. *Takano, Y.*, +, *TSP 2020 300-313*
- A Unified Probabilistic View on Spatially Informed Source Separation and Extraction Based on Independent Vector Analysis. *Brendel, A.*, +, *TSP 2020 3545-3558*
- Accelerated Structure-Aware Reinforcement Learning for Delay-Sensitive Energy Harvesting Wireless Sensors. *Sharma, N.*, +, *TSP 2020 1409-1424*
- Action-Manipulation Attacks Against Stochastic Bandits: Attacks and Defense. *Liu, G.*, +, *TSP 2020 5152-5165*
- Algebraic Complete Solution for Joint Source and Sensor Localization Using Time of Flight Measurements. *Le, T.*, +, *TSP 2020 1853-1869*
- Approximation Algorithms for Training One-Node ReLU Neural Networks. *Dey, S.S.*, +, *TSP 2020 6696-6706*
- Bayesian Cooperative Localization Using Received Signal Strength With Unknown Path Loss Exponent: Message Passing Approaches. *Jin, D.*, +, *TSP 2020 1120-1135*
- Beamspace Direct Localization for Large-Scale Antenna Array Systems. *Zhao, H.*, +, *TSP 2020 3529-3544*
- Blind Deconvolution Using Modulated Inputs. *Ahmed, A.*, *TSP 2020 374-387*
- Blind Recognition of Cyclic Codes Based on Average Cosine Conformity. *Wu, Z.*, +, *TSP 2020 2328-2339*
- Communication Under Channel Uncertainty: An Algorithmic Perspective and Effective Construction. *Boche, H.*, +, *TSP 2020 6224-6239*
- Components Separation Algorithm for Localization and Classification of Mixed Near-Field and Far-Field Sources in Multipath Propagation. *Molaei, A.M.*, +, *TSP 2020 404-419*
- Convergence of Distributed Stochastic Variance Reduced Methods Without Sampling Extra Data. *Cen, S.*, +, *TSP 2020 3976-3989*
- Convolutional Beamspace for Linear Arrays. *Chen, P.*, +, *TSP 2020 5395-5410*
- Cooperative Activity Detection: Sourced and Unsourced Massive Random Access Paradigms. *Shao, X.*, +, *TSP 2020 6578-6593*
- Distributed Sensing With Orthogonal Multiple Access: To Code or not to Code?. *Dong, Y.*, *TSP 2020 1315-1330*
- Duhamel/Hollmann-Like Discrete Fourier Transform Algorithm With the Smallest Multiplicative Complexity Over a Finite Field. *Fedorenko, S.V.*, *TSP 2020 4813-4823*
- Efficient Attributed Scatter Center Extraction Based on Image-Domain Sparse Representation. *Yang, D.*, +, *TSP 2020 4368-4381*
- Efficient Estimation of Graph Signals With Adaptive Sampling. *Ahmadi, M.J.*, +, *TSP 2020 3808-3823*
- Energy- and Area-Efficient Recursive-Conjugate-Gradient-Based MMSE Detector for Massive MIMO Systems. *Liu, L.*, +, *TSP 2020 573-588*
- Estimation of Sinusoidal Frequency-Modulated Signal Parameters by Two Branches and Two Stages. *Bai, G.*, +, *TSP 2020 4959-4970*
- Fast Adaptive Gradient RBF Networks For Online Learning of Nonstationary Time Series. *Liu, T.*, +, *TSP 2020 2015-2030*
- Fast and Efficient Time-Reversal Imaging Using Space-Frequency Propagator Method. *Hu, B.*, +, *TSP 2020 2077-2086*
- Fast Graph Sampling Set Selection Using Gershgorin Disc Alignment. *Bai, Y.*, +, *TSP 2020 2419-2434*
- Generalized Rational Variable Projection With Application in ECG Compression. *Kovacs, P.*, +, *TSP 2020 478-492*
- Guaranteed Recovery of One-Hidden-Layer Neural Networks via Cross Entropy. *Fu, H.*, +, *TSP 2020 3225-3235*
- Hybrid Inexact BCD for Coupled Structured Matrix Factorization in Hyperspectral Super-Resolution. *Wu, R.*, +, *TSP 2020 1728-1743*
- Inexact Block Coordinate Descent Algorithms for Nonsmooth Nonconvex Optimization. *Yang, Y.*, +, *TSP 2020 947-961*
- Intelligent Reflecting Surface Aided Multigroup Multicast MISO Communication Systems. *Zhou, G.*, +, *TSP 2020 3236-3251*
- Joint Subcarrier and Power Allocation in NOMA: Optimal and Approximate Algorithms. *Salaun, L.*, +, *TSP 2020 2215-2230*
- Learned Conjugate Gradient Descent Network for Massive MIMO Detection. *Wei, Y.*, +, *TSP 2020 6336-6349*
- Learning to Bound the Multi-Class Bayes Error. *Sekeh, S.Y.*, +, *TSP 2020 3793-3807*
- Lossless Dimension Reduction for Integer Least Squares With Application to Sphere Decoding. *Neinavaie, M.*, +, *TSP 2020 6547-6561*
- Low-Complexity Decorrelation NLMS Algorithms: Performance Analysis and AEC Application. *Zhang, S.*, +, *TSP 2020 6621-6632*
- Low-Complexity Methods for Estimation After Parameter Selection. *Harel, N.*, +, *TSP 2020 1152-1167*
- Lower Bound for RIP Constants and Concentration of Sum of Top Order Statistics. *Li, G.*, +, *TSP 2020 3169-3178*
- Majorization-Minimization Aided Hybrid Transceivers for MIMO Interference Channels. *Gong, S.*, +, *TSP 2020 4903-4918*
- MIMO Radar Waveform Design in the Presence of Multiple Targets and Practical Constraints. *Yu, X.*, +, *TSP 2020 1974-1989*
- Multi-Group Multicast Beamforming: Optimal Structure and Efficient Algorithms. *Dong, M.*, +, *TSP 2020 3738-3753*
- On Low-Complexity Lattice Reduction Algorithms for Large-Scale MIMO Detection: The Blessing of Sequential Reduction. *Lyu, S.*, +, *TSP 2020 257-269*
- One-Step Prediction for Discrete Time-Varying Nonlinear Systems With Unknown Inputs and Correlated Noises. *Abolhasani, M.*, +, *TSP 2020 808-817*
- Orthogonal and Non-Orthogonal Signal Representations Using New Transformation Matrices Having NPM Structure. *Shah, S.B.*, +, *TSP 2020 1229-1242*
- Orthogonal Periodic Sequences for the Identification of Functional Link Polynomial Filters. *Carini, A.*, +, *TSP 2020 5308-5321*
- Perturbed Amplitude Flow for Phase Retrieval. *Gao, B.*, +, *TSP 2020 5427-5440*
- PhaseEqual: Convex Phase Retrieval via Alternating Direction Method of Multipliers. *Wang, B.*, +, *TSP 2020 1274-1285*
- Practical Dynamic SC-Flip Polar Decoders: Algorithm and Implementation. *Ercan, F.*, +, *TSP 2020 5441-5456*
- Quadratic Optimization for Unimodular Sequence Design via an ADPM Framework. *Yu, X.*, +, *TSP 2020 3619-3634*
- Robust Multichannel Linear Prediction for Online Speech Dereverberation Using Weighted Householder Least Squares Lattice Adaptive Filter. *Wung, J.*, +, *TSP 2020 3559-3574*
- Robust SINR-Constrained Symbol-Level Multiuser Precoding With Imperfect Channel Knowledge. *Haqiqatnejad, A.*, +, *TSP 2020 1837-1852*

Robust Two-Stage Reduced-Dimension Sparsity-Aware STAP for Airborne Radar With Coprime Arrays. *Wang, X.*, +, *TSP 2020 81-96*

Scalable and Robust Community Detection With Randomized Sketching. *Rahmani, M.*, +, *TSP 2020 962-977*

Scale-Invariant Subspace Detectors Based on First- and Second-Order Statistical Models. *Santamaria, I.*, +, *TSP 2020 6432-6443*

Single-Pulse Simultaneous Target Detection and Angle Estimation in a Multichannel Phased Array Radar. *Aubry, A.*, +, *TSP 2020 6649-6664*

Solving Complex Quadratic Systems With Full-Rank Random Matrices. *Huang, S.*, +, *TSP 2020 4782-4796*

Sparse Array Design via Fractal Geometries. *Cohen, R.*, +, *TSP 2020 4797-4812*

Sparse Multiresolution Representations With Adaptive Kernels. *Peifer, M.*, +, *TSP 2020 2031-2044*

#### Computational geometry

FRI Sensing: Retrieving the Trajectory of a Mobile Sensor From Its Temporal Samples. *Guo, R.*, +, *TSP 2020 5533-5545*

Kinetic Euclidean Distance Matrices. *Tabaghi, P.*, +, *TSP 2020 452-465*

Subspace Learning and Feature Selection via Orthogonal Mapping. *Mandanas, F.D.*, +, *TSP 2020 1034-1047*

Topological Sweep for Multi-Target Detection of Geostationary Space Objects. *Liu, D.*, +, *TSP 2020 5166-5177*

#### Computational modeling

Radio Transient Detection in Radio Astronomical Arrays. *Antman, A.*, +, *TSP 2020 5648-5663*

#### Computer vision

Multilabel Classification With Multivariate Time Series Predictors. *Che, Y.*, +, *TSP 2020 5696-5705*

#### Computerized instrumentation

A Novel Algorithm for Optimal Placement of Multiple Inertial Sensors to Improve the Sensing Accuracy. *Sahu, N.*, +, *TSP 2020 142-154*

#### Concatenated codes

Blind Interference Alignment With ISI: A New Look at OFDM for  $K$ -User Interference Channels. *Lee, B.*, +, *TSP 2020 4497-4512*

Iterative and Adjustable Soft List Decoding for Polar Codes. *Feng, B.*, +, *TSP 2020 5559-5572*

#### Concave programming

A Provably Communication-Efficient Asynchronous Distributed Inference Method for Convex and Nonconvex Problems. *Ren, J.*, +, *TSP 2020 3325-3340*

Alternating Minimization Based First-Order Method for the Wireless Sensor Network Localization Problem. *Gur, E.*, +, *TSP 2020 6418-6431*

Best Pair Formulation & Accelerated Scheme for Non-Convex Principal Component Pursuit. *Dutta, A.*, +, *TSP 2020 6128-6141*

Distributed Dual Gradient Tracking for Resource Allocation in Unbalanced Networks. *Zhang, J.*, +, *TSP 2020 2186-2198*

Efficient QP-ADMM Decoder for Binary LDPC Codes and Its Performance Analysis. *Bai, J.*, +, *TSP 2020 503-518*

Fast Algorithms for Joint Multicast Beamforming and Antenna Selection in Massive MIMO. *Ibrahim, M.S.*, +, *TSP 2020 1897-1909*

High-Dimensional Nonconvex Stochastic Optimization by Doubly Stochastic Successive Convex Approximation. *Mokhtari, A.*, +, *TSP 2020 6287-6302*

Hybrid Block Successive Approximation for One-Sided Non-Convex Min-Max Problems: Algorithms and Applications. *Lu, S.*, +, *TSP 2020 3676-3691*

Inexact Block Coordinate Descent Algorithms for Nonsmooth Nonconvex Optimization. *Yang, Y.*, +, *TSP 2020 947-961*

Intelligent Reflecting Surface Aided Multigroup Multicast MISO Communication Systems. *Zhou, G.*, +, *TSP 2020 3236-3251*

Joint Design of Surveillance Radar and MIMO Communication in Cluttered Environments. *Grossi, E.*, +, *TSP 2020 1544-1557*

Joint Waveform and Receiver Design for Co-Channel Hybrid Active-Passive Sensing With Timing Uncertainty. *Wang, F.*, +, *TSP 2020 466-477*

Large Intelligent Surface Aided Physical Layer Security Transmission. *Feng, B.*, +, *TSP 2020 5276-5291*

Learning Proximal Operator Methods for Nonconvex Sparse Recovery with Theoretical Guarantee. *Yang, C.*, +, *TSP 2020 5244-5259*

Localization in 2D PBR With Multiple Transmitters of Opportunity: A Constrained Least Squares Approach. *Aubry, A.*, +, *TSP 2020 634-646*

MIMO Radar Waveform Design in the Presence of Multiple Targets and Practical Constraints. *Yu, X.*, +, *TSP 2020 1974-1989*

Min-Max Metric for Spectrally Compatible Waveform Design Via Log-Exponential Smoothing. *Fan, W.*, +, *TSP 2020 1075-1090*

Mixed Monotonic Programming for Fast Global Optimization. *Matthiesen, B.*, +, *TSP 2020 2529-2544*

Multi-Group Multicast Beamforming: Optimal Structure and Efficient Algorithms. *Dong, M.*, +, *TSP 2020 3738-3753*

Multi-UAV Interference Coordination via Joint Trajectory and Power Control. *Shen, C.*, +, *TSP 2020 843-858*

On the Convergence of a Bayesian Algorithm for Joint Dictionary Learning and Sparse Recovery. *Joseph, G.*, +, *TSP 2020 343-358*

On the Max-Min Fairness of BeamSpace MIMO-NOMA. *Jiao, R.*, +, *TSP 2020 4919-4932*

Penalty Dual Decomposition Method for Nonsmooth Nonconvex Optimization—Part I: Algorithms and Convergence Analysis. *Shi, Q.*, +, *TSP 2020 4108-4122*

Perturbed Amplitude Flow for Phase Retrieval. *Gao, B.*, +, *TSP 2020 5427-5440*

Phase-Only Robust Minimum Dispersion Beamforming. *Jiang, X.*, +, *TSP 2020 5664-5679*

Power Allocation Schemes for Uplink Massive MIMO System in the Presence of Imperfect CSI. *Yu, X.*, +, *TSP 2020 5968-5982*

Precise 3-D GNSS Attitude Determination Based on Riemannian Manifold Optimization Algorithms. *Douik, A.*, +, *TSP 2020 284-299*

Quadratic Matrix Inequality Approach to Robust Adaptive Beamforming for General-Rank Signal Model. *Huang, Y.*, +, *TSP 2020 2244-2255*

Resource Scheduling for Distributed Multi-Target Tracking in Netted Collocated MIMO Radar Systems. *Yi, W.*, +, *TSP 2020 1602-1617*

Riemannian Geometric Optimization Methods for Joint Design of Transmit Sequence and Receive Filter on MIMO Radar. *Li, J.*, +, *TSP 2020 5602-5616*

Robust Beamforming for NOMA-Based Cellular Massive IoT With SWIPT. *Qi, Q.*, +, *TSP 2020 211-224*

Solving Complex Quadratic Systems With Full-Rank Random Matrices. *Huang, S.*, +, *TSP 2020 4782-4796*

SPOQ $\ell_p$ -Over- $\ell_q$  Regularization for Sparse Signal Recovery Applied to Mass Spectrometry. *Cherni, A.*, +, *TSP 2020 6070-6084*

Walkman: A Communication-Efficient Random-Walk Algorithm for Decentralized Optimization. *Mao, X.*, +, *TSP 2020 2513-2528*

#### Conjugate gradient methods

Energy- and Area-Efficient Recursive-Conjugate-Gradient-Based MMSE Detector for Massive MIMO Systems. *Liu, L.*, +, *TSP 2020 573-588*

Learned Conjugate Gradient Descent Network for Massive MIMO Detection. *Wei, Y.*, +, *TSP 2020 6336-6349*

#### Continuous time systems

A Note on BIBO Stability. *Unser, M.*, *TSP 2020 5904-5913*

#### Convergence

A Deterministic Theory for Exact Non-Convex Phase Retrieval. *Yonel, B.*, +, *TSP 2020 4612-4626*

A Provably Communication-Efficient Asynchronous Distributed Inference Method for Convex and Nonconvex Problems. *Ren, J.*, +, *TSP 2020 3325-3340*

Accelerated Schemes for the  $L_1/L_2$  Minimization. *Wang, C.*, +, *TSP 2020 2660-2669*

Convergence Guarantees for Non-Convex Optimisation With Cauchy-Based Penalties. *Karakus, O.*, +, *TSP 2020 6159-6170*

Convergence of Distributed Stochastic Variance Reduced Methods Without Sampling Extra Data. *Cen, S.*, +, *TSP 2020 3976-3989*

Distributed Dual Gradient Tracking for Resource Allocation in Unbalanced Networks. *Zhang, J.*, +, *TSP 2020 2186-2198*

Distributed Signal Processing and Optimization Based on In-Network Subspace Projections. *Di Lorenzo, P.*, +, *TSP 2020 2061-2076*

Efficient Estimation of Graph Signals With Adaptive Sampling. *Ahmadi, M.J.*, +, *TSP 2020 3808-3823*

Generalized Fixed-Point Continuation Method: Convergence and Application. *Xiao, P.*, +, *TSP 2020 5746-5758*

Guaranteed Recovery of One-Hidden-Layer Neural Networks via Cross Entropy. *Fu, H.*, +, *TSP 2020 3225-3235*

IIR Filtering on Graphs With Random Node-Asynchronous Updates. *Teke, O.*, +, *TSP 2020 3945-3960*

Learning Proximal Operator Methods for Nonconvex Sparse Recovery with Theoretical Guarantee. *Yang, C.*, +, *TSP 2020 5244-5259*

Network Dissensus via Distributed ADMM. *Kumar, C.*, +, *TSP 2020 2287-2301*  
Phase-Only Robust Minimum Dispersion Beamforming. *Jiang, X.*, +, *TSP 2020 5664-5679*

Privacy-Preserving Distributed Optimization via Subspace Perturbation: A General Framework. *Li, Q.*, +, *TSP 2020 5983-5996*

#### Convergence of numerical methods

A Generalized Accelerated Composite Gradient Method: Uniting Nesterov's Fast Gradient Method and FISTA. *Florea, M.I.*, +, *TSP 2020 3033-3048*

Can Primal Methods Outperform Primal-Dual Methods in Decentralized Dynamic Optimization?. *Yuan, K.*, +, *TSP 2020 4466-4480*

Diffusion Average-Estimate Bias-Compensated LMS Algorithms Over Adaptive Networks Using Noisy Measurements. *Zhang, S.*, +, *TSP 2020 4643-4655*

Distributed Nonlinear Estimation Over Unbalanced Directed Networks. *Meng, M.*, +, *TSP 2020 6212-6223*

Efficient Estimation of Graph Signals With Adaptive Sampling. *Ahmedi, M.J.*, +, *TSP 2020 3808-3823*

Eigenspace Solution for AOA Localization in Modified Polar Representation. *Sun, Y.*, +, *TSP 2020 2256-2271*

Fixed-Point Minimum Error Entropy With Fiducial Points. *Xie, Y.*, +, *TSP 2020 3824-3833*

Inexact Block Coordinate Descent Algorithms for Nonsmooth Nonconvex Optimization. *Yang, Y.*, +, *TSP 2020 947-961*

Machine Learning at the Wireless Edge: Distributed Stochastic Gradient Descent Over-the-Air. *Mohammadi Amiri, M.*, +, *TSP 2020 2155-2169*

Privacy-Preserving Incremental ADMM for Decentralized Consensus Optimization. *Ye, Y.*, +, *TSP 2020 5842-5854*

Quickly Finding the Best Linear Model in High Dimensions via Projected Gradient Descent. *Sattar, Y.*, +, *TSP 2020 818-829*

Riemannian Geometric Optimization Methods for Joint Design of Transmit Sequence and Receive Filter on MIMO Radar. *Li, J.*, +, *TSP 2020 5602-5616*

Sparse Bayesian DOA Estimation Using Hierarchical Synthesis Lasso Priors for Off-Grid Signals. *Yang, J.*, +, *TSP 2020 872-884*

SPOQ $\ell_p$ -Over- $\ell_q$  Regularization for Sparse Signal Recovery Applied to Mass Spectrometry. *Cherni, A.*, +, *TSP 2020 6070-6084*

Variable Step-Size Widely Linear Complex-Valued Affine Projection Algorithm and Performance Analysis. *Shi, L.*, +, *TSP 2020 5940-5953*

Variance-Reduced Decentralized Stochastic Optimization With Accelerated Convergence. *Xin, R.*, +, *TSP 2020 6255-6271*

Variance-Reduced Stochastic Learning Under Random Reshuffling. *Ying, B.*, +, *TSP 2020 1390-1408*

Walkman: A Communication-Efficient Random-Walk Algorithm for Decentralized Optimization. *Mao, X.*, +, *TSP 2020 2513-2528*

#### Convex programming

A Deterministic Theory for Exact Non-Convex Phase Retrieval. *Yonel, B.*, +, *TSP 2020 4612-4626*

A Dimension Reduction-Based Joint Activity Detection and Channel Estimation Algorithm for Massive Access. *Shao, X.*, +, *TSP 2020 420-435*

A Generalized Accelerated Composite Gradient Method: Uniting Nesterov's Fast Gradient Method and FISTA. *Florea, M.I.*, +, *TSP 2020 3033-3048*

A New Atomic Norm for DOA Estimation With Gain-Phase Errors. *Chen, P.*, +, *TSP 2020 4293-4306*

A Provably Communication-Efficient Asynchronous Distributed Inference Method for Convex and Nonconvex Problems. *Ren, J.*, +, *TSP 2020 3325-3340*

An Online Learning Algorithm for Distributed Task Offloading in Multi-Access Edge Computing. *Sun, Z.*, +, *TSP 2020 3090-3102*

Analyzing Upper Bounds on Mean Absolute Errors for Deep Neural Network-Based Vector-to-Vector Regression. *Qi, J.*, +, *TSP 2020 3411-3422*

Bilinear Compressed Sensing Under Known Signs via Convex Programming. *Aghasi, A.*, +, *TSP 2020 6366-6379*

Convergence Guarantees for Non-Convex Optimisation With Cauchy-Based Penalties. *Karakus, O.*, +, *TSP 2020 6159-6170*

Decentralized Accelerated Gradient Methods With Increasing Penalty Parameters. *Li, H.*, +, *TSP 2020 4855-4870*

Distributed Dual Gradient Tracking for Resource Allocation in Unbalanced Networks. *Zhang, J.*, +, *TSP 2020 2186-2198*

Distributed Online Convex Optimization With Time-Varying Coupled Inequality Constraints. *Yi, X.*, +, *TSP 2020 731-746*

Fast Algorithms for Joint Multicast Beamforming and Antenna Selection in Massive MIMO. *Ibrahim, M.S.*, +, *TSP 2020 1897-1909*

Federated Variance-Reduced Stochastic Gradient Descent With Robustness to Byzantine Attacks. *Wu, Z.*, +, *TSP 2020 4583-4596*

Functional Nonlinear Sparse Models. *Chamon, L.F.O.*, +, *TSP 2020 2449-2463*

Generalized Fixed-Point Continuation Method: Convergence and Application. *Xiao, P.*, +, *TSP 2020 5746-5758*

High-Dimensional Nonconvex Stochastic Optimization by Doubly Stochastic Successive Convex Approximation. *Mokhtari, A.*, +, *TSP 2020 6287-6302*

Hybrid Block Successive Approximation for One-Sided Non-Convex Min-Max Problems: Algorithms and Applications. *Lu, S.*, +, *TSP 2020 3676-3691*

Inexact Block Coordinate Descent Algorithms for Nonsmooth Nonconvex Optimization. *Yang, Y.*, +, *TSP 2020 947-961*

Intelligent Reflecting Surface Aided Multigroup Multicast MISO Communication Systems. *Zhou, G.*, +, *TSP 2020 3236-3251*

Joint Waveform and Receiver Design for Co-Channel Hybrid Active-Passive Sensing With Timing Uncertainty. *Wang, F.*, +, *TSP 2020 466-477*

Localization of a Moving Source by Frequency Measurements. *Ahmed, M.M.*, +, *TSP 2020 4839-4854*

MIMO Radar Waveform Design in the Presence of Multiple Targets and Practical Constraints. *Yu, X.*, +, *TSP 2020 1974-1989*

Multi-Group Multicast Beamforming: Optimal Structure and Efficient Algorithms. *Dong, M.*, +, *TSP 2020 3738-3753*

Multi-Pattern Recognition Through Maximization of Signal-to-Peak-Interference Ratio With Application to Neural Spike Sorting. *Wouters, J.*, +, *TSP 2020 6240-6254*

Multi-UAV Interference Coordination via Joint Trajectory and Power Control. *Shen, C.*, +, *TSP 2020 843-858*

Nonsmooth Optimization Algorithms for Multicast Beamforming in Content-Centric Fog Radio Access Networks. *Nguyen, H.T.*, +, *TSP 2020 1455-1469*

On Analog Gradient Descent Learning Over Multiple Access Fading Channels. *Sery, T.*, +, *TSP 2020 2897-2911*

Online Trajectory Optimization Using Inexact Gradient Feedback for Time-Varying Environments. *Nutalapati, M.K.*, +, *TSP 2020 4824-4838*

Optimal Local Differentially Private Quantization. *Zhang, R.*, +, *TSP 2020 6509-6520*

Optimal Resource Allocation for Asynchronous Multiple Targets Tracking in Heterogeneous Radar Networks. *Yan, J.*, +, *TSP 2020 4055-4068*

Penalty Dual Decomposition Method for Nonsmooth Nonconvex Optimization—Part I: Algorithms and Convergence Analysis. *Shi, Q.*, +, *TSP 2020 4108-4122*

PhaseEqual: Convex Phase Retrieval via Alternating Direction Method of Multipliers. *Wang, B.*, +, *TSP 2020 1274-1285*

Power Allocation Schemes for Uplink Massive MIMO System in the Presence of Imperfect CSI. *Yu, X.*, +, *TSP 2020 5968-5982*

Privacy-Preserving Incremental ADMM for Decentralized Consensus Optimization. *Ye, Y.*, +, *TSP 2020 5842-5854*

Quadratic Matrix Inequality Approach to Robust Adaptive Beamforming for General-Rank Signal Model. *Huang, Y.*, +, *TSP 2020 2244-2255*

Riemannian Geometric Optimization Methods for Joint Design of Transmit Sequence and Receive Filter on MIMO Radar. *Li, J.*, +, *TSP 2020 5602-5616*

Robust SINR-Constrained Symbol-Level Multiuser Precoding With Imperfect Channel Knowledge. *Haqiqatnejad, A.*, +, *TSP 2020 1837-1852*

Safe Squeezing for Antisparsity Coding. *Elvira, C.*, +, *TSP 2020 3252-3265*

Variance-Reduced Decentralized Stochastic Optimization With Accelerated Convergence. *Xin, R.*, +, *TSP 2020 6255-6271*

Variations on the Convolutional Sparse Coding Model. *Rey-Otero, I.*, +, *TSP 2020 519-528*

Walkman: A Communication-Efficient Random-Walk Algorithm for Decentralized Optimization. *Mao, X.*, +, *TSP 2020 2513-2528*

#### Convolution

A Note on BIBO Stability. *Unser, M.*, *TSP 2020 5904-5913*

- A Provably Correct and Robust Algorithm for Convolutional Nonnegative Matrix Factorization. *Degleris, A.*, +, *TSP 2020 2499-2512*
- Blind Deconvolution Using Modulated Inputs. *Ahmed, A.*, *TSP 2020 374-387*
- Convolutional Beamspace for Linear Arrays. *Chen, P.*, +, *TSP 2020 5395-5410*
- Duhamel/Hollmann-Like Discrete Fourier Transform Algorithm With the Smallest Multiplicative Complexity Over a Finite Field. *Fedorenko, S.V.*, *TSP 2020 4813-4823*
- Generalized Fast-Convolution-Based Filtered-OFDM: Techniques and Application to 5G New Radio. *Yli-Kaakinen, J.*, +, *TSP 2020 1213-1228*
- Invariance-Preserving Localized Activation Functions for Graph Neural Networks. *Ruiz, L.*, +, *TSP 2020 127-141*
- Stability Analysis of  $\ell_{0,\infty}$ -Norm Based Convolutional Sparse Coding Using Stripe Coherence. *Fu, Y.*, +, *TSP 2020 5810-5823*
- Stability Properties of Graph Neural Networks. *Gama, F.*, +, *TSP 2020 5680-5695*
- Convolutional codes**
- Convolutional Dictionary Learning With Grid Refinement. *Song, A.H.*, +, *TSP 2020 2558-2573*
- Variations on the Convolutional Sparse Coding Model. *Rey-Otero, I.*, +, *TSP 2020 519-528*
- Convolutional neural nets**
- Defect Detection and Classification by Training a Generic Convolutional Neural Network Encoder. *Dong, X.*, +, *TSP 2020 6055-6069*
- Guaranteed Recovery of One-Hidden-Layer Neural Networks via Cross Entropy. *Fu, H.*, +, *TSP 2020 3225-3235*
- Invariance-Preserving Localized Activation Functions for Graph Neural Networks. *Ruiz, L.*, +, *TSP 2020 127-141*
- Optimal Wireless Resource Allocation With Random Edge Graph Neural Networks. *Eisen, M.*, +, *TSP 2020 2977-2991*
- Tensor Graph Convolutional Networks for Multi-Relational and Robust Learning. *Ioannidis, V.N.*, +, *TSP 2020 6535-6546*
- Cooperative communication**
- Bayesian Cooperative Localization Using Received Signal Strength With Unknown Path Loss Exponent: Message Passing Approaches. *Jin, D.*, +, *TSP 2020 1120-1135*
- Cloud-Assisted Cooperative Localization for Vehicle Platoons: A Turbo Approach. *Liu, A.*, +, *TSP 2020 605-620*
- Cooperative Activity Detection: Sourced and Unsourced Massive Random Access Paradigms. *Shao, X.*, +, *TSP 2020 6578-6593*
- Cooperative Detection by Multi-Agent Networks in the Presence of Position Uncertainty. *Gu, K.*, +, *TSP 2020 5411-5426*
- Online Trajectory and Radio Resource Optimization of Cache-Enabled UAV Wireless Networks With Content and Energy Recharging. *Chai, S.*, +, *TSP 2020 1286-1299*
- Correlation methods**
- Algorithms for Change Detection With Sparse Signals. *Jain, A.*, +, *TSP 2020 1331-1345*
- An Interference-Tolerant Algorithm for Wide-Band Moving Source Passive Localization. *Napolitano, A.*, *TSP 2020 3471-3485*
- Cross Z-Complementary Pairs for Optimal Training in Spatial Modulation Over Frequency Selective Channels. *Liu, Z.*, +, *TSP 2020 1529-1543*
- Distributed Coding of Quantized Random Projections. *Goukhshtein, M.*, +, *TSP 2020 5924-5939*
- Greedy Algorithms for Sparse and Positive Signal Recovery Based on Bit-Wise MAP Detection. *Chae, J.*, +, *TSP 2020 4017-4029*
- Nonlinear Multiview Analysis: Identifiability and Neural Network-Assisted Implementation. *Lyu, Q.*, +, *TSP 2020 2697-2712*
- Orthogonal Periodic Sequences for the Identification of Functional Link Polynomial Filters. *Carini, A.*, +, *TSP 2020 5308-5321*
- Quadratic FM Signal Detection and Parameter Estimation Using Coherently Integrated Trilinear Autocorrelation Function. *Zhang, J.*, +, *TSP 2020 621-633*
- Sparse Array Design via Fractal Geometries. *Cohen, R.*, +, *TSP 2020 4797-4812*
- Two-Dimensional Z-Complementary Array Code Sets Based on Matrices of Generating Polynomials. *Das, S.*, +, *TSP 2020 5519-5532*
- Covariance analysis**
- Resource Scheduling for Distributed Multi-Target Tracking in Netted Collocated MIMO Radar Systems. *Yi, W.*, +, *TSP 2020 1602-1617*
- Covariance matrices**
- A Generalized Version of ACE and Performance Analysis. *Raghavan, R.S.*, *TSP 2020 2574-2585*
- A Large Dimensional Study of Regularized Discriminant Analysis. *Elkhalil, K.*, +, *TSP 2020 2464-2479*
- A Method for Reducing the Performance Gap Between Non-Coherent and Coherent Sub-Arrays. *Tirer, T.*, +, *TSP 2020 3358-3370*
- A MIMO Version of the Reed-Yu Detector and Its Connection to the Wilks Lambda and Hotelling  $T^2$  Statistics. *Butler, R.W.*, +, *TSP 2020 2925-2934*
- A Spatial-Temporal Subspace-Based Compressive Channel Estimation Technique in Unknown Interference MIMO Channels. *Takano, Y.*, +, *TSP 2020 300-313*
- Adaptive Persymmetric Subspace Detectors in the Partially Homogeneous Environment. *Wang, Z.*, +, *TSP 2020 5178-5187*
- Algorithms for Globally-Optimal Secure Signaling Over Gaussian MIMO Wiretap Channels Under Interference Constraints. *Dong, L.*, +, *TSP 2020 4513-4528*
- An Enhanced Spatial Smoothing Technique With ESPRIT Algorithm for Direction of Arrival Estimation in Coherent Scenarios. *Pan, J.*, +, *TSP 2020 3635-3643*
- Analysis of the SNR Loss Distribution With Covariance Mismatched Training Samples. *Besson, O.*, *TSP 2020 5759-5768*
- Asymptotically Optimal Blind Calibration of Uniform Linear Sensor Arrays for Narrowband Gaussian Signals. *Weiss, A.*, +, *TSP 2020 5322-5333*
- Blind Community Detection From Low-Rank Excitations of a Graph Filter. *Wai, H.*, +, *TSP 2020 436-451*
- CFAR Feature Plane: A Novel Framework for the Analysis and Design of Radar Detectors. *Coluccia, A.*, +, *TSP 2020 3903-3916*
- Channel Estimation: Unified View of Optimal Performance and Pilot Sequences. *Le Magoarou, L.*, +, *TSP 2020 5588-5601*
- Collaborative Sequential State Estimation Under Unknown Heterogeneous Noise Covariance Matrices. *Dedecius, K.*, +, *TSP 2020 5365-5378*
- Cooperative Activity Detection: Sourced and Unsourced Massive Random Access Paradigms. *Shao, X.*, +, *TSP 2020 6578-6593*
- Diffuse Multipath Exploitation for Adaptive Detection of Range Distributed Targets. *Rong, Y.*, +, *TSP 2020 1197-1212*
- Group Sparsity Based Localization for Far-Field and Near-Field Sources Based on Distributed Sensor Array Networks. *Shen, Q.*, +, *TSP 2020 6493-6508*
- Identifying Cognitive Radars - Inverse Reinforcement Learning Using Revealed Preferences. *Krishnamurthy, V.*, +, *TSP 2020 4529-4542*
- Invariance Theory for Adaptive Detection in Non-Gaussian Clutter. *Tang, M.*, +, *TSP 2020 2045-2060*
- Multi-Channel Factor Analysis With Common and Unique Factors. *Ramirez, D.*, +, *TSP 2020 113-126*
- Multi-Class Random Matrix Filtering for Adaptive Learning. *Braca, P.*, +, *TSP 2020 359-373*
- New Viewpoint and Algorithms for Water-Filling Solutions in Wireless Communications. *Xing, C.*, +, *TSP 2020 1618-1634*
- On the Resolution Probability of Conditional and Unconditional Maximum Likelihood DoA Estimation. *Mestre, X.*, +, *TSP 2020 4656-4671*
- On the Sample Complexity of Graphical Model Selection From Non-Stationary Samples. *Tran, N.*, +, *TSP 2020 17-32*
- Persymmetric Adaptive Detection of Distributed Targets With Unknown Steering Vectors. *Liu, J.*, +, *TSP 2020 4123-4134*
- Quadratic Matrix Inequality Approach to Robust Adaptive Beamforming for General-Rank Signal Model. *Huang, Y.*, +, *TSP 2020 2244-2255*
- Quaternion Non-Negative Matrix Factorization: Definition, Uniqueness, and Algorithm. *Flamant, J.*, +, *TSP 2020 1870-1883*
- Radio Transient Detection in Radio Astronomical Arrays. *Antman, A.*, +, *TSP 2020 5648-5663*
- Rao-Based Detectors for Adaptive Target Detection in the Presence of Signal-Dependent Interference. *Ghohjvand, K.*, +, *TSP 2020 1662-1672*
- Robust Semiparametric Efficient Estimators in Complex Elliptically Symmetric Distributions. *Fortunati, S.*, +, *TSP 2020 5003-5015*
- Scale-Invariant Subspace Detectors Based on First- and Second-Order Statistical Models. *Santamaria, I.*, +, *TSP 2020 6432-6443*

- Spectral Efficiency and Energy Efficiency Tradeoff in Massive MIMO Downlink Transmission With Statistical CSIT. *You, L.*, +, *TSP 2020 2645-2659*
- Subspace-Based Near-Field Source Localization in Unknown Spatially Non-uniform Noise Environment. *Zuo, W.*, +, *TSP 2020 4713-4726*
- Target Detection With Imperfect Waveform Separation in Distributed MIMO Radar. *Wang, P.*, +, *TSP 2020 793-807*
- Training Data Assisted Anomaly Detection of Multi-Pixel Targets In Hyperspectral Imagery. *Liu, J.*, +, *TSP 2020 3022-3032*
- Tunable Adaptive Target Detection With Kernels in Colocated MIMO Radar. *Zaimbashi, A.*, +, *TSP 2020 1500-1514*
- Variable Step-Size Widely Linear Complex-Valued Affine Projection Algorithm and Performance Analysis. *Shi, L.*, +, *TSP 2020 5940-5953*
- Crosstalk**
- Digital Predistortion for Multiuser Hybrid MIMO at mmWaves. *Brihuega, A.*, +, *TSP 2020 3603-3618*
- Crowdsourcing**
- Prospect Theory Based Crowdsourcing for Classification in the Presence of Spammers. *Geng, B.*, +, *TSP 2020 4083-4093*
- Cryptography**
- Lattice Reduction Over Imaginary Quadratic Fields. *Lyu, S.*, +, *TSP 2020 6380-6393*
- Current distribution**
- The Extended Manifold for Antenna Arrays. *Friedlander, B.*, *TSP 2020 493-502*
- CW radar**
- Joint Features Extraction for Multiple Moving Targets Using (Ultra-)Wideband FMCW Signals in the Presence of Doppler Ambiguity. *Xu, S.*, +, *TSP 2020 6562-6577*
- Multipath Suppression for Continuous Wave Radar via Slepian Sequences. *Day, B.P.*, +, *TSP 2020 548-557*
- Cyber-physical systems**
- Dynamic Sensor Subset Selection for Centralized Tracking of an IID Process. *Chattopadhyay, A.*, +, *TSP 2020 3209-3224*
- Cyclic codes**
- Blind Recognition of Cyclic Codes Based on Average Cosine Conformity. *Wu, Z.*, +, *TSP 2020 2328-2339*
- Cyclic redundancy check codes**
- A Node-Reliability Based CRC-Aided Successive Cancellation List Polar Decoder Architecture Combined With Post-Processing. *Lee, H.*, +, *TSP 2020 5954-5967*
- Practical Dynamic SC-Flip Polar Decoders: Algorithm and Implementation. *Ercan, F.*, +, *TSP 2020 5441-5456*
- D**
- Data acquisition**
- Model-Based Deep Learning for One-Bit Compressive Sensing. *Khobahi, S.*, +, *TSP 2020 5292-5307*
- Data analysis**
- A False Discovery Rate Oriented Approach to Parallel Sequential Change Detection Problems. *Chen, J.*, +, *TSP 2020 1823-1836*
- LDA via L1-PCA of Whiten Data. *Martin-Clemente, R.*, +, *TSP 2020 225-240*
- Learning Nonnegative Factors From Tensor Data: Probabilistic Modeling and Inference Algorithm. *Cheng, L.*, +, *TSP 2020 1792-1806*
- NEWMA: A New Method for Scalable Model-Free Online Change-Point Detection. *Keriven, N.*, +, *TSP 2020 3515-3528*
- Nonlinear Multiview Analysis: Identifiability and Neural Network-Assisted Implementation. *Lyu, Q.*, +, *TSP 2020 2697-2712*
- Performance Bounds for Complex-Valued Independent Vector Analysis. *Kautsky, V.*, +, *TSP 2020 4258-4267*
- Risk Convergence of Centered Kernel Ridge Regression With Large Dimensional Data. *Elkhalil, K.*, +, *TSP 2020 1574-1588*
- Data communication**
- Adaptive Virtual Waveform Design for Millimeter-Wave Joint Communication-Radar. *Kumari, P.*, +, *TSP 2020 715-730*
- Data compression**
- Compressive Sensing Using Iterative Hard Thresholding With Low Precision Data Representation: Theory and Applications. *Gurel, N.M.*, +, *TSP 2020 4268-4282*
- Distributed Coding of Quantized Random Projections. *Goukhshtein, M.*, +, *TSP 2020 5924-5939*
- Generalized Rational Variable Projection With Application in ECG Compression. *Kovacs, P.*, +, *TSP 2020 478-492*
- Generative Models for Low-Dimensional Video Representation and Reconstruction. *Hyder, R.*, +, *TSP 2020 1688-1701*
- Optimal Local Differentially Private Quantization. *Zhang, R.*, +, *TSP 2020 6509-6520*
- Data handling**
- Learning Mixtures of Separable Dictionaries for Tensor Data: Analysis and Algorithms. *Ghassemi, M.*, +, *TSP 2020 33-48*
- On the Adversarial Robustness of Subspace Learning. *Li, F.*, +, *TSP 2020 1470-1483*
- Tensor Graph Convolutional Networks for Multi-Relational and Robust Learning. *Ioannidis, V.N.*, +, *TSP 2020 6535-6546*
- Data models**
- Learning Nonlinear Mixtures: Identifiability and Algorithm. *Yang, B.*, +, *TSP 2020 2857-2869*
- Data privacy**
- Differential Private Noise Adding Mechanism and Its Application on Consensus Algorithm. *He, J.*, +, *TSP 2020 4069-4082*
- Optimal Local Differentially Private Quantization. *Zhang, R.*, +, *TSP 2020 6509-6520*
- Privacy-Preserving Distributed Machine Learning via Local Randomization and ADMM Perturbation. *Wang, X.*, +, *TSP 2020 4226-4241*
- Privacy-Preserving Distributed Optimization via Subspace Perturbation: A General Framework. *Li, Q.*, +, *TSP 2020 5983-5996*
- Privacy-Preserving Incremental ADMM for Decentralized Consensus Optimization. *Ye, Y.*, +, *TSP 2020 5842-5854*
- Spectrum Cartography via Coupled Block-Term Tensor Decomposition. *Zhang, G.*, +, *TSP 2020 3660-3675*
- Data reduction**
- Online Data Dimensionality Reduction and Reconstruction Using Graph Filtering. *Schizas, I.D.*, *TSP 2020 3871-3886*
- Subspace Learning and Feature Selection via Orthogonal Mapping. *Mandanas, F.D.*, +, *TSP 2020 1034-1047*
- Unraveling the Veil of Subspace RIP Through Near-Isometry on Subspaces. *Xu, X.*, +, *TSP 2020 3117-3131*
- Decentralized control**
- Decentralized Multi-Agent Stochastic Optimization With Pairwise Constraints and Quantized Communications. *Cao, X.*, +, *TSP 2020 3296-3311*
- Decision making**
- Prospect Theoretic Utility Based Human Decision Making in Multi-Agent Systems. *Geng, B.*, +, *TSP 2020 1091-1104*
- Decision theory**
- Cost-Aware Cascading Bandits. *Gan, C.*, +, *TSP 2020 3692-3706*
- High-Dimensional Nonconvex Stochastic Optimization by Doubly Stochastic Successive Convex Approximation. *Mokhtari, A.*, +, *TSP 2020 6287-6302*
- Making Decisions by Unlabeled Bits. *Marano, S.*, +, *TSP 2020 2935-2947*
- Prospect Theory Based Crowdsourcing for Classification in the Presence of Spammers. *Geng, B.*, +, *TSP 2020 4083-4093*
- Decoding**
- A Node-Reliability Based CRC-Aided Successive Cancellation List Polar Decoder Architecture Combined With Post-Processing. *Lee, H.*, +, *TSP 2020 5954-5967*
- Communication Under Channel Uncertainty: An Algorithmic Perspective and Effective Construction. *Boche, H.*, +, *TSP 2020 6224-6239*
- Cooperative Activity Detection: Sourced and Unsourced Massive Random Access Paradigms. *Shao, X.*, +, *TSP 2020 6578-6593*
- Denial-of-Service Attacks on Communication Systems: Detectability and Jammer Knowledge. *Boche, H.*, +, *TSP 2020 3754-3768*
- Distributed Coding of Quantized Random Projections. *Goukhshtein, M.*, +, *TSP 2020 5924-5939*
- Iterative and Adjustable Soft List Decoding for Polar Codes. *Feng, B.*, +, *TSP 2020 5559-5572*
- MAJoRCom: A Dual-Function Radar Communication System Using Index Modulation. *Huang, T.*, +, *TSP 2020 3423-3438*

Practical Dynamic SC-Flip Polar Decoders: Algorithm and Implementation. *Ercan, F.*, +, *TSP 2020 5441-5456*

Practical Product Code Construction of Polar Codes. *Condo, C.*, +, *TSP 2020 2004-2014*

Resolving Range Ambiguity via Multiple-Input Multiple-Output Radar With Element-Pulse Coding. *Xu, J.*, +, *TSP 2020 2770-2783*

Soft Symbol Decoding in Sweep-Spread-Carrier Underwater Acoustic Communications: A Novel Variational Bayesian Algorithm and Its Analysis. *Arunkumar, K.P.*, +, *TSP 2020 2435-2448*

Source Separation With Side Information Based on Gaussian Mixture Models With Application in Art Investigation. *Sabetsarvestani, Z.*, +, *TSP 2020 558-572*

#### Decomposition

Blind Community Detection From Low-Rank Excitations of a Graph Filter. *Wai, H.*, +, *TSP 2020 436-451*

#### Deconvolution

Identifiability Conditions for Compressive Multichannel Blind Deconvolution. *Mulletti, S.*, +, *TSP 2020 4627-4642*

SPOQ $\ell_p$ -Over- $\ell_q$  Regularization for Sparse Signal Recovery Applied to Mass Spectrometry. *Cherni, A.*, +, *TSP 2020 6070-6084*

Support Recovery for Sparse Signals With Unknown Non-Stationary Modulation. *Xie, Y.*, +, *TSP 2020 1884-1896*

#### Decorrelation

An Enhanced Spatial Smoothing Technique With ESPRIT Algorithm for Direction of Arrival Estimation in Coherent Scenarios. *Pan, J.*, +, *TSP 2020 3635-3643*

Distributed Separated-Decorrelation LMS Algorithms Over Sensor Networks With Noisy Inputs. *Zhang, S.*, +, *TSP 2020 4163-4177*

Low-Complexity Decorrelation NLMS Algorithms: Performance Analysis and AEC Application. *Zhang, S.*, +, *TSP 2020 6621-6632*

Performance Analysis of Deficient Length Quaternion Least Mean Square Adaptive Filters. *Xiang, M.*, +, *TSP 2020 65-80*

#### Delays

Direct Target Tracking by Distributed Gaussian Particle Filtering for Heterogeneous Networks. *Xia, W.*, +, *TSP 2020 1361-1373*

Searching for Anomalies Over Composite Hypotheses. *Hemo, B.*, +, *TSP 2020 1181-1196*

#### Demodulation

Support Recovery for Sparse Signals With Unknown Non-Stationary Modulation. *Xie, Y.*, +, *TSP 2020 1884-1896*

#### Detectors

Radio Transient Detection in Radio Astronomical Arrays. *Antman, A.*, +, *TSP 2020 5648-5663*

#### Deterministic algorithms

Searching for Anomalies Over Composite Hypotheses. *Hemo, B.*, +, *TSP 2020 1181-1196*

#### Diagnostic radiography

Measurement of Power Density at Zero Frequency With a Trend Compensation. *Kim, D.S.*, *TSP 2020 1964-1973*

#### Difference equations

Frequency-Domain Prony Method for Autoregressive Model Identification and Sinusoidal Parameter Estimation. *Ando, S.*, *TSP 2020 3461-3470*

#### Differential equations

Continuous-Discrete Multiple Target Filtering: PMBM, PHD and CPHD Filter Implementations. *Garcia-Fernandez, A.F.*, +, *TSP 2020 1300-1314*

Frequency-Domain Prony Method for Autoregressive Model Identification and Sinusoidal Parameter Estimation. *Ando, S.*, *TSP 2020 3461-3470*

Generating Sparse Stochastic Processes Using Matched Splines. *Dadi, L.*, +, *TSP 2020 4397-4406*

Model-Based Robust Filtering and Experimental Design for Stochastic Differential Equation Systems. *Zhao, G.*, +, *TSP 2020 3849-3859*

Unified and Self-Stabilized Parallel Algorithm for Multiple Generalized Eigenpairs Extraction. *Kong, X.*, +, *TSP 2020 3644-3659*

#### Digital filters

Robust and Computationally Efficient Digital IIR Filter Synthesis and Stability Analysis Under Finite Precision Implementations. *Ko, H.*, +, *TSP 2020 1807-1822*

#### Digital-analog conversion

Large-Amplitude Dithering Mitigates Glitches in Digital-to-Analogue Converters. *Eielsen, A.A.*, +, *TSP 2020 1950-1963*

#### Direction-of-arrival estimation

A Method for Reducing the Performance Gap Between Non-Coherent and Coherent Sub-Arrays. *Tirer, T.*, +, *TSP 2020 3358-3370*

A New Atomic Norm for DOA Estimation With Gain-Phase Errors. *Chen, P.*, +, *TSP 2020 4293-4306*

An Algebraic Closed-Form Solution for Bearings-Only Maneuvering Target Motion Analysis From a Nonmaneuvering Platform. *Badriasi, L.*, +, *TSP 2020 4672-4687*

An Asymptotically Efficient Weighted Least Squares Estimator for Co-Array-Based DoA Estimation. *Sedighi, S.*, +, *TSP 2020 589-604*

An Enhanced Spatial Smoothing Technique With ESPRIT Algorithm for Direction of Arrival Estimation in Coherent Scenarios. *Pan, J.*, +, *TSP 2020 3635-3643*

AOA Pseudolinear Target Motion Analysis in the Presence of Sensor Location Errors. *Pang, F.*, +, *TSP 2020 3385-3399*

Asymptotically Optimal Blind Calibration of Uniform Linear Sensor Arrays for Narrowband Gaussian Signals. *Weiss, A.*, +, *TSP 2020 5322-5333*

Beamspace Direct Localization for Large-Scale Antenna Array Systems. *Zhao, H.*, +, *TSP 2020 3529-3544*

Cloud-Assisted Cooperative Localization for Vehicle Platoons: A Turbo Approach. *Liu, A.*, +, *TSP 2020 605-620*

Components Separation Algorithm for Localization and Classification of Mixed Near-Field and Far-Field Sources in Multipath Propagation. *Molaei, A.M.*, +, *TSP 2020 404-419*

Convolutional Beamspace for Linear Arrays. *Chen, P.*, +, *TSP 2020 5395-5410*

Cramér-Rao Bound for DOA Estimators Under the Partial Relaxation Framework: Derivation and Comparison. *Trinh-Hoang, M.*, +, *TSP 2020 3194-3208*

Eigenspace Solution for AOA Localization in Modified Polar Representation. *Sun, Y.*, +, *TSP 2020 2256-2271*

Group Sparsity Based Localization for Far-Field and Near-Field Sources Based on Distributed Sensor Array Networks. *Shen, Q.*, +, *TSP 2020 6493-6508*

High-Resolution DOA Estimation Algorithm for a Single Acoustic Vector Sensor at Low SNR. *Zhang, J.*, +, *TSP 2020 6142-6158*

Joint Features Extraction for Multiple Moving Targets Using (Ultra-)Wideband FMCW Signals in the Presence of Doppler Ambiguity. *Xu, S.*, +, *TSP 2020 6562-6577*

Joint Source and Sensor Localization by Angles of Arrival. *Le, T.*, +, *TSP 2020 6521-6534*

On DoA Estimation for Rotating Arrays Using Stochastic Maximum Likelihood Approach. *Meller, M.*, +, *TSP 2020 5219-5229*

On the Resolution Probability of Conditional and Unconditional Maximum Likelihood DoA Estimation. *Mestre, X.*, +, *TSP 2020 4656-4671*

Padded Coprime Arrays for Improved DOA Estimation: Exploiting Hole Representation and Filling Strategies. *Zheng, W.*, +, *TSP 2020 4597-4611*

Sparse Bayesian DOA Estimation Using Hierarchical Synthesis Lasso Priors for Off-Grid Signals. *Yang, J.*, +, *TSP 2020 872-884*

Subspace-Based Near-Field Source Localization in Unknown Spatially Non-uniform Noise Environment. *Zuo, W.*, +, *TSP 2020 4713-4726*

#### Discrete Fourier transforms

Duhamel/Hollmann-Like Discrete Fourier Transform Algorithm With the Smallest Multiplicative Complexity Over a Finite Field. *Fedorenko, S.V.*, *TSP 2020 4813-4823*

Eigenvectors of Ordinary, Generalized, Centered and Offset Discrete Fourier Transforms Based on Lookup Table Methods: Efficiency and Approximation Uses. *Hsue, W.*, *TSP 2020 1776-1791*

Fractional Spectrum Analysis for Nonuniform Sampling in the Presence of Clock Jitter and Timing Offset. *Ma, J.*, +, *TSP 2020 4148-4162*

Frequency Diverse Array Radar: New Results and Discrete Fourier Transform Based Beamforming. *Zubair, M.*, +, *TSP 2020 2670-2681*

Frequency-Domain Prony Method for Autoregressive Model Identification and Sinusoidal Parameter Estimation. *Ando, S.*, *TSP 2020 3461-3470*

On Computing the Discrete Hirschman Transform. *Xue, D.*, +, *TSP 2020 6444-6452*

Orthogonal and Non-Orthogonal Signal Representations Using New Transformation Matrices Having NPM Structure. *Shah, S.B.*, +, *TSP 2020 1229-1242*  
 Turing Computability of Fourier Transforms of Bandlimited and Discrete Signals. *Boche, H.*, +, *TSP 2020 532-547*

#### Discrete time systems

Distributed Optimal Linear Fusion Predictors and Filters for Systems With Random Parameter Matrices and Correlated Noises. *Sun, S.*, *TSP 2020 1064-1074*

One-Step Prediction for Discrete Time-Varying Nonlinear Systems With Unknown Inputs and Correlated Noises. *Abolhasani, M.*, +, *TSP 2020 808-817*

Optimal Sequential Estimation for Asynchronous Sampling Discrete—Time Systems. *Lin, H.*, +, *TSP 2020 6117-6127*

Turing Meets Shannon: Computable Sampling Type Reconstruction With Error Control. *Boche, H.*, +, *TSP 2020 6350-6365*

#### Discrete wavelet transforms

Wavelet Based Multivariate Signal Denoising Using Mahalanobis Distance and EDF Statistics. *Naveed, K.*, +, *TSP 2020 5997-6010*

#### Diseases

Distributions and Power of Optimal Signal-Detection Statistics in Finite Case. *Zhang, H.*, +, *TSP 2020 1021-1033*

#### Distance measurement

3-D Distributed Localization With Mixed Local Relative Measurements. *Fang, X.*, +, *TSP 2020 5869-5881*

Kinetic Euclidean Distance Matrices. *Tabaghi, P.*, +, *TSP 2020 452-465*

#### Distortion

Analysis of Different Rational Decimated Filter Banks Derived From the Same Set of Prototype Filters. *V, H.*, +, *TSP 2020 1923-1936*

Distributed Sensing With Orthogonal Multiple Access: To Code or not to Code?. *Dong, Y.*, *TSP 2020 1315-1330*

Stabilization of a Modified LMS Algorithm for Canceling Nonlinear Memory Effects. *Xiao, Y.*, *TSP 2020 3439-3449*

#### Distributed algorithms

A Provably Communication-Efficient Asynchronous Distributed Inference Method for Convex and Nonconvex Problems. *Ren, J.*, +, *TSP 2020 3325-3340*

Adaptation and Learning Over Networks Under Subspace Constraints—Part II: Performance Analysis. *Nassif, R.*, +, *TSP 2020 2948-2962*

Convergence of Distributed Stochastic Variance Reduced Methods Without Sampling Extra Data. *Cen, S.*, +, *TSP 2020 3976-3989*

Distributed Approximate Newton's Method Robust to Byzantine Attackers. *Cao, X.*, +, *TSP 2020 6011-6025*

Distributed Dual Gradient Tracking for Resource Allocation in Unbalanced Networks. *Zhang, J.*, +, *TSP 2020 2186-2198*

Distributed Linear Estimation Via a Roaming Token. *Balthazar, L.*, +, *TSP 2020 780-792*

Distributed Online Convex Optimization With Time-Varying Coupled Inequality Constraints. *Yi, X.*, +, *TSP 2020 731-746*

Distributed Signal Processing and Optimization Based on In-Network Subspace Projections. *Di Lorenzo, P.*, +, *TSP 2020 2061-2076*

Global Synchronization of Pulse-Coupled Oscillator Networks Under Byzantine Attacks. *Wang, Z.*, +, *TSP 2020 3158-3168*

Network Dissensus via Distributed ADMM. *Kumar, C.*, +, *TSP 2020 2287-2301*

On Maintaining Linear Convergence of Distributed Learning and Optimization Under Limited Communication. *Magnusson, S.*, +, *TSP 2020 6101-6116*

Sparse Robust Learning From Flipped Bits. *Liu, Z.*, +, *TSP 2020 4407-4421*

#### Distributed control

On Maintaining Linear Convergence of Distributed Learning and Optimization Under Limited Communication. *Magnusson, S.*, +, *TSP 2020 6101-6116*

#### Distributed processing

Distributed Constrained Online Learning. *Paternain, S.*, +, *TSP 2020 3486-3499*

#### Distributed sensors

A Variational Bayes Approach to Adaptive Radio Tomography. *Lee, D.*, +, *TSP 2020 3779-3792*

Blind Over-the-Air Computation and Data Fusion via Provable Wirtinger Flow. *Dong, J.*, +, *TSP 2020 1136-1151*

Distributed Multi-Sensor Fusion of PHD Filters With Different Sensor Fields of View. *Yi, W.*, +, *TSP 2020 5204-5218*

Sparse Robust Learning From Flipped Bits. *Liu, Z.*, +, *TSP 2020 4407-4421*

#### Diversity reception

Asynchronous Blind Network-Assisted Diversity Multiple Access. *Akl, N.*, +, *TSP 2020 990-1001*

NOMA-Aided UAV Communications over Correlated Rician Shadowed Fading Channels. *Ernest, T.Z.H.*, +, *TSP 2020 3103-3116*

#### Doppler effect

An Interference-Tolerant Algorithm for Wide-Band Moving Source Passive Localization. *Napolitano, A.*, *TSP 2020 3471-3485*

Direct Target Tracking by Distributed Gaussian Particle Filtering for Heterogeneous Networks. *Xia, W.*, +, *TSP 2020 1361-1373*

#### Doppler radar

Joint Features Extraction for Multiple Moving Targets Using (Ultra-)Wideband FMCW Signals in the Presence of Doppler Ambiguity. *Xu, S.*, +, *TSP 2020 6562-6577*

Joint Range and Velocity Estimation With Intrapulse and Intersubcarrier Doppler Effects for OFDM-Based RadCom Systems. *Zhang, F.*, +, *TSP 2020 662-675*

Multi-Carrier Agile Phased Array Radar. *Huang, T.*, +, *TSP 2020 5706-5721*

Robust Two-Stage Reduced-Dimension Sparsity-Aware STAP for Airborne Radar With Coprime Arrays. *Wang, X.*, +, *TSP 2020 81-96*

#### Doppler shift

Doppler Shifting Technique for Generating Multi-Frames of Video SAR via Sub-Aperture Signal Processing. *Kim, C.K.*, +, *TSP 2020 3990-4001*

Efficient Closed-Form Solution for Moving Target Localization in MIMO Radars With Minimum Number of Antennas. *Noroozi, A.*, +, *TSP 2020 2545-2557*

Localization of a Moving Object With Sensors in Motion by Time Delays and Doppler Shifts. *Jia, T.*, +, *TSP 2020 5824-5841*

Localization of a Moving Source by Frequency Measurements. *Ahmed, M.M.*, +, *TSP 2020 4839-4854*

#### Duality (mathematics)

Model-Free Learning of Optimal Ergodic Policies in Wireless Systems. *Kalogerias, D.S.*, +, *TSP 2020 6272-6286*

Multi-Group Multicast Beamforming: Optimal Structure and Efficient Algorithms. *Dong, M.*, +, *TSP 2020 3738-3753*

Quadratic Matrix Inequality Approach to Robust Adaptive Beamforming for General-Rank Signal Model. *Huang, Y.*, +, *TSP 2020 2244-2255*

#### Dynamic programming

Can Primal Methods Outperform Primal-Dual Methods in Decentralized Dynamic Optimization?. *Yuan, K.*, +, *TSP 2020 4466-4480*

## E

#### Earth

Localized Analysis of Signals on the Sphere Over Polygon Regions. *Aslam, A.*, +, *TSP 2020 4568-4582*

#### Echo

Shapes From Echoes: Uniqueness From Point-to-Plane Distance Matrices. *Krekovic, M.*, +, *TSP 2020 2480-2498*

#### Echo suppression

Double-Talk Robust Multichannel Acoustic Echo Cancellation Using Least-Squares MIMO Adaptive Filtering: Transversal, Array, and Lattice Forms. *Malik, S.*, +, *TSP 2020 4887-4902*

Low-Complexity Decorrelation NLMS Algorithms: Performance Analysis and AEC Application. *Zhang, S.*, +, *TSP 2020 6621-6632*

Stereo Acoustic Echo Cancellation Based on Maximum Likelihood Estimation With Inter-Channel-Correlated Echo Compensation. *Cho, B.J.*, +, *TSP 2020 5188-5203*

#### Econophysics

System Identification of High-Dimensional Linear Dynamical Systems With Serially Correlated Output Noise Components. *Lin, J.*, +, *TSP 2020 5573-5587*

#### Eigenvalues and eigenfunctions

A Method for Reducing the Performance Gap Between Non-Coherent and Coherent Sub-Arrays. *Tirer, T.*, +, *TSP 2020 3358-3370*

A MIMO Version of the Reed-Yu Detector and Its Connection to the Wilks Lambda and Hotelling  $T^2$  Statistics. *Butler, R.W.*, +, *TSP 2020 2925-2934*

- Analysis of the SNR Loss Distribution With Covariance Mismatched Training Samples. *Besson, O.*, *TSP 2020 5759-5768*
- Differential and Weighted Slepian Concentration Problems on the Sphere. *Nafees, W.*, +, *TSP 2020 2830-2840*
- Eigenspace Solution for AOA Localization in Modified Polar Representation. *Sun, Y.*, +, *TSP 2020 2256-2271*
- Eigenvectors of Ordinary, Generalized, Centered and Offset Discrete Fourier Transforms Based on Lookup Table Methods: Efficiency and Approximation Uses. *Hsue, W.*, *TSP 2020 1776-1791*
- Fast and Efficient Time-Reversal Imaging Using Space-Frequency Propagator Method. *Hu, B.*, +, *TSP 2020 2077-2086*
- Fast Graph Sampling Set Selection Using Gershgorin Disc Alignment. *Bai, Y.*, +, *TSP 2020 2419-2434*
- Graph Fourier Transform: A Stable Approximation. *Domingos, J.*, +, *TSP 2020 4422-4437*
- Graph Sampling for Matrix Completion Using Recurrent Gershgorin Disc Shift. *Wang, F.*, +, *TSP 2020 2814-2829*
- Identifying Cognitive Radars - Inverse Reinforcement Learning Using Revealed Preferences. *Krishnamurthy, V.*, +, *TSP 2020 4529-4542*
- Joint EigenValue Decomposition Algorithms Based on First-Order Taylor Expansion. *Andre, R.*, +, *TSP 2020 1716-1727*
- Multi-Set Low-Rank Factorizations With Shared and Unshared Components. *Sorensen, M.*, +, *TSP 2020 5122-5137*
- Nonlinear Filtering With Variable Bandwidth Exponential Kernels. *Taseska, M.*, +, *TSP 2020 314-326*
- Sampling and Inference of Networked Dynamics Using Log-Koopman Nonlinear Graph Fourier Transform. *Wei, Z.*, +, *TSP 2020 6187-6197*
- Scale-Invariant Subspace Detectors Based on First- and Second-Order Statistical Models. *Santamaria, I.*, +, *TSP 2020 6432-6443*
- Spectral Efficiency and Energy Efficiency Tradeoff in Massive MIMO Downlink Transmission With Statistical CSIT. *You, L.*, +, *TSP 2020 2645-2659*
- Subspace-Based Near-Field Source Localization in Unknown Spatially Non-uniform Noise Environment. *Zuo, W.*, +, *TSP 2020 4713-4726*
- Unified and Self-Stabilized Parallel Algorithm for Multiple Generalized Eigenpairs Extraction. *Kong, X.*, +, *TSP 2020 3644-3659*
- Electrocardiography**
- Alternating Group Lasso for Block-Term Tensor Decomposition and Application to ECG Source Separation. *Goulart, J.H.d.M.*, +, *TSP 2020 2682-2696*
- Generalized Rational Variable Projection With Application in ECG Compression. *Kovacs, P.*, +, *TSP 2020 478-492*
- Low-Complexity On-Demand Reconstruction for Compressively Sensed Problematic Signals. *Chou, C.*, +, *TSP 2020 4094-4107*
- Electroencephalography**
- Bayesian Nonnegative Matrix Factorization With Dirichlet Process Mixtures. *Li, C.*, +, *TSP 2020 3860-3870*
- The Autoregressive Linear Mixture Model: A Time-Series Model for an Instantaneous Mixture of Network Processes. *Bohannon, A.W.*, +, *TSP 2020 4481-4496*
- Tractable Inference and Observation Likelihood Evaluation in Latent Structure Influence Models. *Karimi, S.*, +, *TSP 2020 5736-5745*
- Electromyography**
- Bayesian Nonnegative Matrix Factorization With Dirichlet Process Mixtures. *Li, C.*, +, *TSP 2020 3860-3870*
- Real-Time Embedded EMG Signal Analysis for Wrist-Hand Pose Identification. *Raurale, S.A.*, +, *TSP 2020 2713-2723*
- Electron microscopy**
- Multi-Target Detection With an Arbitrary Spacing Distribution. *Lan, T.*, +, *TSP 2020 1589-1601*
- Electronic countermeasures**
- Multi-Carrier Agile Phased Array Radar. *Huang, T.*, +, *TSP 2020 5706-5721*
- Embedded systems**
- Real-Time Embedded EMG Signal Analysis for Wrist-Hand Pose Identification. *Raurale, S.A.*, +, *TSP 2020 2713-2723*
- Encoding**
- Dictionary Learning With BLOTLESS Update. *Yu, Q.*, +, *TSP 2020 1635-1645*
- Gated Graph Recurrent Neural Networks. *Ruiz, L.*, +, *TSP 2020 6303-6318*
- On the Design of Multi-Spectrally Constrained Constant Modulus Radar Signals. *Aubry, A.*, +, *TSP 2020 2231-2243*
- Reconstructing Classes of Non-Bandlimited Signals From Time Encoded Information. *Alexandru, R.*, +, *TSP 2020 747-763*
- Resolving Range Ambiguity via Multiple-Input Multiple-Output Radar With Element-Pulse Coding. *Xu, J.*, +, *TSP 2020 2770-2783*
- Sampling and Reconstruction of Bandlimited Signals With Multi-Channel Time Encoding. *Adam, K.*, +, *TSP 2020 1105-1119*
- Energy conservation**
- Dynamic Sensor Subset Selection for Centralized Tracking of an IID Process. *Chattopadhyay, A.*, +, *TSP 2020 3209-3224*
- Power Allocation Schemes for Uplink Massive MIMO System in the Presence of Imperfect CSI. *Yu, X.*, +, *TSP 2020 5968-5982*
- Energy harvesting**
- Accelerated Structure-Aware Reinforcement Learning for Delay-Sensitive Energy Harvesting Wireless Sensors. *Sharma, N.*, +, *TSP 2020 1409-1424*
- Random Access Communication for Wireless Control Systems With Energy Harvesting Sensors. *Calvo-Fullana, M.*, +, *TSP 2020 3961-3975*
- Robust Beamforming for NOMA-Based Cellular Massive IoT With SWIPT. *Qi, Q.*, +, *TSP 2020 211-224*
- Entropy**
- Fixed-Point Minimum Error Entropy With Fiducial Points. *Xie, Y.*, +, *TSP 2020 3824-3833*
- Generalized Fixed-Point Continuation Method: Convergence and Application. *Xiao, P.*, +, *TSP 2020 5746-5758*
- Guaranteed Recovery of One-Hidden-Layer Neural Networks via Cross Entropy. *Fu, H.*, +, *TSP 2020 3225-3235*
- On Computing the Discrete Hirschman Transform. *Xue, D.*, +, *TSP 2020 6444-6452*
- Equalizers**
- A Tensor-Based Approach to Joint Channel Estimation/Data Detection in Flexible Multicarrier MIMO Systems. *Kofidis, E.*, *TSP 2020 3179-3193*
- Error analysis**
- A Closed-Form Estimator for Bearings-Only Fusion of Heterogeneous Passive Sensors. *Arulampalam, S.*, +, *TSP 2020 6681-6695*
- Fixed-Point Minimum Error Entropy With Fiducial Points. *Xie, Y.*, +, *TSP 2020 3824-3833*
- Localization of a Moving Source by Frequency Measurements. *Ahmed, M.M.*, +, *TSP 2020 4839-4854*
- Error correction codes**
- Practical Dynamic SC-Flip Polar Decoders: Algorithm and Implementation. *Ercan, F.*, +, *TSP 2020 5441-5456*
- Error statistics**
- A Framework of Robust Transmission Design for IRS-Aided MISO Communications With Imperfect Cascaded Channels. *Zhou, G.*, +, *TSP 2020 5092-5106*
- A Spatial-Temporal Subspace-Based Compressive Channel Estimation Technique in Unknown Interference MIMO Channels. *Takano, Y.*, +, *TSP 2020 300-313*
- Asymptotic Performance of Discrete-Valued Vector Reconstruction via Box-Constrained Optimization With Sum of  $\ell_1$  Regularizers. *Hayakawa, R.*, +, *TSP 2020 4320-4335*
- Bayes-Optimal MMSE Detector for Massive MIMO Relaying With Low-Precision ADCs/DACs. *Yang, X.*, +, *TSP 2020 3341-3357*
- Blind Channel Estimation for Downlink Massive MIMO Systems With Imperfect Channel Reciprocity. *Chopra, R.*, +, *TSP 2020 3132-3145*
- Making Decisions by Unlabeled Bits. *Marano, S.*, +, *TSP 2020 2935-2947*
- Nearly Optimal Adaptive Sequential Tests for Object Detection. *Tartakovsky, A.G.*, +, *TSP 2020 3371-3384*
- On the Performance of Splitting Receiver With Joint Coherent and Non-Coherent Processing. *Wang, Y.*, +, *TSP 2020 917-930*
- Searching for Anomalies Over Composite Hypotheses. *Hemo, B.*, +, *TSP 2020 1181-1196*
- Soft Symbol Decoding in Sweep-Spread-Carrier Underwater Acoustic Communications: A Novel Variational Bayesian Algorithm and Its Analysis. *Arunkumar, K.P.*, +, *TSP 2020 2435-2448*
- Variable Step-Size Widely Linear Complex-Valued Affine Projection Algorithm and Performance Analysis. *Shi, L.*, +, *TSP 2020 5940-5953*



**Estimation theory**

- Bayesian Spatial Field Reconstruction With Unknown Distortions in Sensor Networks. *Xiang, Q.*, +, *TSP 2020 4336-4351*
- Blind Over-the-Air Computation and Data Fusion via Provable Wirtinger Flow. *Dong, J.*, +, *TSP 2020 1136-1151*
- Calibration of Phase Shifter Network for Hybrid Beamforming in mmWave Massive MIMO Systems. *Wei, X.*, +, *TSP 2020 2302-2315*
- Defining Fundamental Frequency for Almost Harmonic Signals. *Elvander, F.*, +, *TSP 2020 6453-6466*
- Diffusion Normalized Least Mean M-estimate Algorithms: Design and Performance Analysis. *Yu, Y.*, +, *TSP 2020 2199-2214*
- Direct Target Tracking by Distributed Gaussian Particle Filtering for Heterogeneous Networks. *Xia, W.*, +, *TSP 2020 1361-1373*
- Distributed Sensing With Orthogonal Multiple Access: To Code or not to Code?. *Dong, Y.*, *TSP 2020 1315-1330*
- Exploring Positive Noise in Estimation Theory. *Radnosrati, K.*, +, *TSP 2020 3590-3602*
- Joint Range and Velocity Estimation With Intrapulse and Intersubcarrier Doppler Effects for OFDM-Based RadCom Systems. *Zhang, F.*, +, *TSP 2020 662-675*
- Low-Complexity Methods for Estimation After Parameter Selection. *Harel, N.*, +, *TSP 2020 1152-1167*
- Multistatic Moving Object Localization by a Moving Transmitter of Unknown Location and Offset. *Zhang, Y.*, +, *TSP 2020 4438-4453*
- Non-Parametric Decomposition of Pulse Pile-Up Under Gaussian Noise With Finite Data Sets. *McClean, C.*, +, *TSP 2020 2114-2127*
- One-Step Prediction for Discrete Time-Varying Nonlinear Systems With Unknown Inputs and Correlated Noises. *Abolhasani, M.*, +, *TSP 2020 808-817*
- Parametric Signal Estimation Using the Cumulative Distribution Transform. *Rubaiyat, A.H.M.*, +, *TSP 2020 3312-3324*
- Performance Bounds for Complex-Valued Independent Vector Analysis. *Kautsky, V.*, +, *TSP 2020 4258-4267*
- Subsampling Generative Adversarial Networks: Density Ratio Estimation in Feature Space With Softplus Loss. *Ding, X.*, +, *TSP 2020 1910-1922*
- System Identification of High-Dimensional Linear Dynamical Systems With Serially Correlated Output Noise Components. *Lin, J.*, +, *TSP 2020 5573-5587*
- Evolutionary computation**
- Erratum to "Security-Enhanced Filter Design for Stochastic Systems Under Malicious Attack via Smoothed Signal Model and Multiobjective Estimation Method" [20 4971-4986]. *Chen, B.*, +, *TSP 2020 5923*
- Security-Enhanced Filter Design for Stochastic Systems under Malicious Attack via Smoothed Signal Model and Multiobjective Estimation Method. *Chen, B.*, +, *TSP 2020 4971-4986*
- Expectation-maximization algorithms**
- A Spatial-Temporal Subspace-Based Compressive Channel Estimation Technique in Unknown Interference MIMO Channels. *Takano, Y.*, +, *TSP 2020 300-313*
- Decentralized Expectation Consistent Signal Recovery for Phase Retrieval. *Wang, C.*, +, *TSP 2020 1484-1499*
- Improved Most Likely Heteroscedastic Gaussian Process Regression via Bayesian Residual Moment Estimator. *Zhang, Q.*, +, *TSP 2020 3450-3460*
- Joint Range and Velocity Estimation With Intrapulse and Intersubcarrier Doppler Effects for OFDM-Based RadCom Systems. *Zhang, F.*, +, *TSP 2020 662-675*
- Linear Multiple Low-Rank Kernel Based Stationary Gaussian Processes Regression for Time Series. *Yin, F.*, +, *TSP 2020 5260-5275*
- Multi-Target Detection With an Arbitrary Spacing Distribution. *Lan, T.*, +, *TSP 2020 1589-1601*
- On the Convergence of a Bayesian Algorithm for Joint Dictionary Learning and Sparse Recovery. *Joseph, G.*, +, *TSP 2020 343-358*
- RadAR Adaptive Detection Architectures for Heterogeneous Environments. *Liu, J.*, +, *TSP 2020 4307-4319*
- Sparse Bayesian DOA Estimation Using Hierarchical Synthesis Lasso Priors for Off-Grid Signals. *Yang, J.*, +, *TSP 2020 872-884*
- Sparse Robust Learning From Flipped Bits. *Liu, Z.*, +, *TSP 2020 4407-4421*

- Student's t-VAR Modeling With Missing Data Via Stochastic EM and Gibbs Sampling. *Zhou, R.*, +, *TSP 2020 6198-6211*
- Tractable Inference and Observation Likelihood Evaluation in Latent Structure Influence Models. *Karimi, S.*, +, *TSP 2020 5736-5745*
- Variance State Propagation for Structured Sparse Bayesian Learning. *Zhang, M.*, +, *TSP 2020 2386-2400*
- Variational Bayesian Estimation of Statistical Properties of Composite Gamma Log-Normal Distribution. *Turlapaty, A.C.*, *TSP 2020 6481-6492*
- Exponential distribution**
- Majorize-Minimize Adapted Metropolis-Hastings Algorithm. *Marnissi, Y.*, +, *TSP 2020 2356-2369*
- NEWMA: A New Method for Scalable Model-Free Online Change-Point Detection. *Keriven, N.*, +, *TSP 2020 3515-3528*
- Quickly Finding the Best Linear Model in High Dimensions via Projected Gradient Descent. *Sattar, Y.*, +, *TSP 2020 818-829*

**F****Fading channels**

- Accelerated Structure-Aware Reinforcement Learning for Delay-Sensitive Energy Harvesting Wireless Sensors. *Sharma, N.*, +, *TSP 2020 1409-1424*
- Asynchronous Blind Network-Assisted Diversity Multiple Access. *Akl, N.*, +, *TSP 2020 990-1001*
- Communication Under Channel Uncertainty: An Algorithmic Perspective and Effective Construction. *Boche, H.*, +, *TSP 2020 6224-6239*
- Frame Repetition: A Solution to Imaginary Interference Cancellation in FBMC/OQAM Systems. *Kong, D.*, +, *TSP 2020 1259-1273*
- On Analog Gradient Descent Learning Over Multiple Access Fading Channels. *Sery, T.*, +, *TSP 2020 2897-2911*

**Fast Fourier transforms**

- Min-Max Metric for Spectrally Compatible Waveform Design Via Log-Exponential Smoothing. *Fan, W.*, +, *TSP 2020 1075-1090*
- On Computing the Discrete Hirschman Transform. *Xue, D.*, +, *TSP 2020 6444-6452*

**Fault tolerance**

- Global Synchronization of Pulse-Coupled Oscillator Networks Under Byzantine Attacks. *Wang, Z.*, +, *TSP 2020 3158-3168*

**Feature extraction**

- Bayesian Nonnegative Matrix Factorization With Dirichlet Process Mixtures. *Li, C.*, +, *TSP 2020 3860-3870*
- Brain Decoding of Viewed Image Categories via Semi-Supervised Multi-View Bayesian Generative Model. *Akamatsu, Y.*, +, *TSP 2020 5769-5781*
- Defect Detection and Classification by Training a Generic Convolutional Neural Network Encoder. *Dong, X.*, +, *TSP 2020 6055-6069*
- Joint Features Extraction for Multiple Moving Targets Using (Ultra-)Wideband FMCW Signals in the Presence of Doppler Ambiguity. *Xu, S.*, +, *TSP 2020 6562-6577*
- Learning Deep Analysis Dictionaries for Image Super-Resolution. *Huang, J.*, +, *TSP 2020 6633-6648*
- Learning to Bound the Multi-Class Bayes Error. *Sekeh, S.Y.*, +, *TSP 2020 3793-3807*
- Modeling of Spatio-Temporal Hawkes Processes With Randomized Kernels. *Ilhan, F.*, +, *TSP 2020 4946-4958*
- Subspace Learning and Feature Selection via Orthogonal Mapping. *Man-danas, F.D.*, +, *TSP 2020 1034-1047*
- Unified and Self-Stabilized Parallel Algorithm for Multiple Generalized Eigenpairs Extraction. *Kong, X.*, +, *TSP 2020 3644-3659*
- Variational Temporal Deep Generative Model for Radar HRRP Target Recognition. *Guo, D.*, +, *TSP 2020 5795-5809*

**Feature selection**

- Subspace Learning and Feature Selection via Orthogonal Mapping. *Man-danas, F.D.*, +, *TSP 2020 1034-1047*

**Feedback**

- Decentralized Multi-Agent Stochastic Optimization With Pairwise Constraints and Quantized Communications. *Cao, X.*, +, *TSP 2020 3296-3311*
- Fast Optimization With Zeroth-Order Feedback in Distributed, Multi-User MIMO Systems. *Bilenne, O.*, +, *TSP 2020 6085-6100*

**Feedforward neural networks**

Tune Smarter Not Harder: A Principled Approach to Tuning Learning Rates for Shallow Nets. *Tholeti, T.*, +, *TSP 2020 5063-5078*

**Field programmable gate arrays**

Compressive Sensing Using Iterative Hard Thresholding With Low Precision Data Representation: Theory and Applications. *Gurel, N.M.*, +, *TSP 2020 4268-4282*

Energy- and Area-Efficient Recursive-Conjugate-Gradient-Based MMSE Detector for Massive MIMO Systems. *Liu, L.*, +, *TSP 2020 573-588*

**Filtering theory**

A Solution for Large-Scale Multi-Object Tracking. *Beard, M.*, +, *TSP 2020 2754-2769*

Analysis of Different Rational Decimated Filter Banks Derived From the Same Set of Prototype Filters. *V., H.*, +, *TSP 2020 1923-1936*

Blind Community Detection From Low-Rank Excitations of a Graph Filter. *Wai, H.*, +, *TSP 2020 436-451*

Computationally Efficient Distributed Multi-Sensor Fusion With Multi-Bernoulli Filter. *Yi, W.*, +, *TSP 2020 241-256*

Continuous-Discrete Multiple Target Filtering: PMBM, PHD and CPHD Filter Implementations. *Garcia-Fernandez, A.F.*, +, *TSP 2020 1300-1314*

CSI-Independent Non-Linear Signal Detection in Molecular Communications. *Li, B.*, +, *TSP 2020 97-112*

Data-Driven Structured Noise Filtering via Common Dynamics Estimation. *Markovsky, I.*, +, *TSP 2020 3064-3073*

Directional Sparse Filtering for Blind Estimation of Under-Determined Complex-Valued Mixing Matrices. *Nguyen, A.H.T.*, +, *TSP 2020 1990-2003*

Distributed Multi-Sensor Fusion of PHD Filters With Different Sensor Fields of View. *Yi, W.*, +, *TSP 2020 5204-5218*

Exact Blind Community Detection From Signals on Multiple Graphs. *Roddenberry, T.M.*, +, *TSP 2020 5016-5030*

Fractional Spectrum Analysis for Nonuniform Sampling in the Presence of Clock Jitter and Timing Offset. *Ma, J.*, +, *TSP 2020 4148-4162*

Fusion of Labeled RFS Densities With Minimum Information Loss. *Gao, L.*, +, *TSP 2020 5855-5868*

Generalized Fast-Convolution-Based Filtered-OFDM: Techniques and Application to 5G New Radio. *Yli-Kaakinen, J.*, +, *TSP 2020 1213-1228*

Generalized Sampling on Graphs With Subspace and Smoothness Priors. *Tanaka, Y.*, +, *TSP 2020 2272-2286*

Identifiability Conditions for Compressive Multichannel Blind Deconvolution. *Mulleti, S.*, +, *TSP 2020 4627-4642*

Inverse Filtering for Hidden Markov Models With Applications to Counter-Adversarial Autonomous Systems. *Mattila, R.*, +, *TSP 2020 4987-5002*

Low-Complexity Decorrelation NLMS Algorithms: Performance Analysis and AEC Application. *Zhang, S.*, +, *TSP 2020 6621-6632*

Maximum Total Complex Correntropy for Adaptive Filter. *Qian, G.*, +, *TSP 2020 978-989*

Model-Based Robust Filtering and Experimental Design for Stochastic Differential Equation Systems. *Zhao, G.*, +, *TSP 2020 3849-3859*

Multi-Class Random Matrix Filtering for Adaptive Learning. *Braca, P.*, +, *TSP 2020 359-373*

Multi-Group Multicast Beamforming: Optimal Structure and Efficient Algorithms. *Dong, M.*, +, *TSP 2020 3738-3753*

Multi-Pattern Recognition Through Maximization of Signal-to-Peak-Interference Ratio With Application to Neural Spike Sorting. *Wouters, J.*, +, *TSP 2020 6240-6254*

Multipath Suppression for Continuous Wave Radar via Slepian Sequences. *Day, B.P.*, +, *TSP 2020 548-557*

Multiple Bayesian Filtering as Message Passing. *Vitetta, G.M.*, +, *TSP 2020 1002-1020*

New OptimalZ-Complementary Code Sets Based on Generalized Paraunitary Matrices. *Das, S.*, +, *TSP 2020 5546-5558*

Nonlinear Adaptive Filtering With Kernel Set-Membership Approach. *Chen, K.*, +, *TSP 2020 1515-1528*

Nonlinear Filtering With Variable Bandwidth Exponential Kernels. *Taseska, M.*, +, *TSP 2020 314-326*

Novel Short-Time Fractional Fourier Transform: Theory, Implementation, and Applications. *Shi, J.*, +, *TSP 2020 3280-3295*

On Arithmetic Average Fusion and Its Application for Distributed Multi-Bernoulli Multitarget Tracking. *Li, T.*, +, *TSP 2020 2883-2896*

Online Data Dimensionality Reduction and Reconstruction Using Graph Filtering. *Schizas, I.D.*, *TSP 2020 3871-3886*

Optimal Resource Allocation for Asynchronous Multiple Targets Tracking in Heterogeneous Radar Networks. *Yan, J.*, +, *TSP 2020 4055-4068*

Optimal Sequential Estimation for Asynchronous Sampling Discrete-Time Systems. *Lin, H.*, +, *TSP 2020 6117-6127*

Reconstructing Classes of Non-Bandlimited Signals From Time Encoded Information. *Alexandru, R.*, +, *TSP 2020 747-763*

Robust and Computationally Efficient Digital IIR Filter Synthesis and Stability Analysis Under Finite Precision Implementations. *Ko, H.*, +, *TSP 2020 1807-1822*

Security-Enhanced Filter Design for Stochastic Systems under Malicious Attack via Smoothed Signal Model and Multiobjective Estimation Method. *Chen, B.*, +, *TSP 2020 4971-4986*

Sparse Bayesian Learning With Dynamic Filtering for Inference of Time-Varying Sparse Signals. *O'Shaughnessy, M.R.*, +, *TSP 2020 388-403*

Spatial GNSS Spoofing Against Drone Swarms With Multiple Antennas and Wiener Filter. *Ceccato, M.*, +, *TSP 2020 5782-5794*

Stereo Acoustic Echo Cancellation Based on Maximum Likelihood Estimation With Inter-Channel-Correlated Echo Compensation. *Cho, B.J.*, +, *TSP 2020 5188-5203*

Tracking Multiple Maneuvering Targets Hidden in the DBZ Based on the MM-GLMB Filter. *Wu, W.*, +, *TSP 2020 2912-2924*

Trajectory Poisson Multi-Bernoulli Filters. *Garcia-Fernandez, A.F.*, +, *TSP 2020 4933-4945*

**FIR filters**

A New Class of Explicit Interpolatory Splines and Related Measurement Estimation. *Chen, J.*, +, *TSP 2020 2799-2813*

IIR Filtering on Graphs With Random Node-Asynchronous Updates. *Teke, O.*, +, *TSP 2020 3945-3960*

**Fixed point arithmetic**

Robust and Computationally Efficient Digital IIR Filter Synthesis and Stability Analysis Under Finite Precision Implementations. *Ko, H.*, +, *TSP 2020 1807-1822*

**FM radar**

Joint Features Extraction for Multiple Moving Targets Using (Ultra-)Wideband FMCW Signals in the Presence of Doppler Ambiguity. *Xu, S.*, +, *TSP 2020 6562-6577*

**Foreign exchange trading**

Tune Smarter Not Harder: A Principled Approach to Tuning Learning Rates for Shallow Nets. *Tholeti, T.*, +, *TSP 2020 5063-5078*

**Forward error correction**

Practical Dynamic SC-Flip Polar Decoders: Algorithm and Implementation. *Ercan, F.*, +, *TSP 2020 5441-5456*

**Fourier analysis**

Binary Sequence Set Design for Interferer Rejection in Multi-Branch Modulation. *Mo, D.*, +, *TSP 2020 3769-3778*

Differential and Weighted Slepian Concentration Problems on the Sphere. *Nafees, W.*, +, *TSP 2020 2830-2840*

Identifiability Conditions for Compressive Multichannel Blind Deconvolution. *Mulleti, S.*, +, *TSP 2020 4627-4642*

**Fourier transforms**

Continuous-Domain Signal Reconstruction Using  $L_p$ -Norm Regularization. *Bohra, P.*, +, *TSP 2020 4543-4554*

Graph Fourier Transform: A Stable Approximation. *Domingos, J.*, +, *TSP 2020 4422-4437*

Modeling of Spatio-Temporal Hawkes Processes With Randomized Kernels. *Ilhan, F.*, +, *TSP 2020 4946-4958*

Novel Fractional Wavelet Packet Transform: Theory, Implementation, and Applications. *Shi, J.*, +, *TSP 2020 4041-4054*

Novel Short-Time Fractional Fourier Transform: Theory, Implementation, and Applications. *Shi, J.*, +, *TSP 2020 3280-3295*

On the Sample Complexity of Graphical Model Selection From Non-Stationary Samples. *Tran, N.*, +, *TSP 2020 17-32*

Sampling and Inference of Networked Dynamics Using Log-Koopman Nonlinear Graph Fourier Transform. *Wei, Z.*, +, *TSP 2020 6187-6197*

**Fractals**

Sparse Array Design via Fractal Geometries. *Cohen, R.*, +, *TSP 2020 4797-4812*

**Free-space optical communication**

Sherman-Morrison Formula Aided Adaptive Channel Estimation for Underwater Visible Light Communication With Fractionally-Sampled OFDM. *Chen, J.*, +, *TSP 2020 2784-2798*

**Frequency division multiple access**

Joint Subcarrier and Power Allocation in NOMA: Optimal and Approximate Algorithms. *Salaun, L.*, +, *TSP 2020 2215-2230*

**Frequency division multiplexing**

A Block Sparsity Based Estimator for mmWave Massive MIMO Channels With Beam Squint. *Wang, M.*, +, *TSP 2020 49-64*

**Frequency estimation**

Exact and Robust Reconstructions of Integer Vectors Based on Multidimensional Chinese Remainder Theorem (MD-CRT). *Xiao, L.*, +, *TSP 2020 5349-5364*

Frequency-Domain Prony Method for Autoregressive Model Identification and Sinusoidal Parameter Estimation. *Ando, S.*, *TSP 2020 3461-3470*

Gridless Parameter Estimation for One-Bit MIMO Radar With Time-Varying Thresholds. *Xi, F.*, +, *TSP 2020 1048-1063*

Orthogonal and Non-Orthogonal Signal Representations Using New Transformation Matrices Having NPM Structure. *Shah, S.B.*, +, *TSP 2020 1229-1242*

**Frequency modulation**

Estimation of Sinusoidal Frequency-Modulated Signal Parameters by Two Branches and Two Stages. *Bai, G.*, +, *TSP 2020 4959-4970*

Fractional Spectrum Analysis for Nonuniform Sampling in the Presence of Clock Jitter and Timing Offset. *Ma, J.*, +, *TSP 2020 4148-4162*

Low-Rank Hankel Matrix Completion for Robust Time-Frequency Analysis. *Zhang, S.*, +, *TSP 2020 6171-6186*

Quadratic FM Signal Detection and Parameter Estimation Using Coherently Integrated Trilinear Autocorrelation Function. *Zhang, J.*, +, *TSP 2020 621-633*

**Frequency response**

A New Class of Explicit Interpolatory Splines and Related Measurement Estimation. *Chen, J.*, +, *TSP 2020 2799-2813*

**Frequency-domain analysis**

Frequency-Domain Prony Method for Autoregressive Model Identification and Sinusoidal Parameter Estimation. *Ando, S.*, *TSP 2020 3461-3470*

Stereo Acoustic Echo Cancellation Based on Maximum Likelihood Estimation With Inter-Channel-Correlated Echo Compensation. *Cho, B.J.*, +, *TSP 2020 5188-5203*

Turing Computability of Fourier Transforms of Bandlimited and Discrete Signals. *Boche, H.*, +, *TSP 2020 532-547*

Two Dimensional Efficient Multiplier-Less Structures of Möbius Function for Ramanujan Filter Banks. *Pei, S.*, +, *TSP 2020 5079-5091*

**Function approximation**

Accelerated Structure-Aware Reinforcement Learning for Delay-Sensitive Energy Harvesting Wireless Sensors. *Sharma, N.*, +, *TSP 2020 1409-1424*

Gaussian Process Reinforcement Learning for Fast Opportunistic Spectrum Access. *Yan, Z.*, +, *TSP 2020 2613-2628*

Linear Multiple Low-Rank Kernel Based Stationary Gaussian Processes Regression for Time Series. *Yin, F.*, +, *TSP 2020 5260-5275*

**Functional analysis**

Deep Neural Networks With Trainable Activations and Controlled Lipschitz Constant. *Aziznejad, S.*, +, *TSP 2020 4688-4699*

**G****Gamma distribution**

The Vector Poisson Channel: On the Linearity of the Conditional Mean Estimator. *Dytso, A.*, +, *TSP 2020 5894-5903*

Variational Bayesian Estimation of Statistical Properties of Composite Gamma Log-Normal Distribution. *Turlapaty, A.C.*, *TSP 2020 6481-6492*

Variational Temporal Deep Generative Model for Radar HRRP Target Recognition. *Guo, D.*, +, *TSP 2020 5795-5809*

**Gaussian channels**

Algorithms for Globally-Optimal Secure Signaling Over Gaussian MIMO Wiretap Channels Under Interference Constraints. *Dong, L.*, +, *TSP 2020 4513-4528*

Fast Optimization With Zeroth-Order Feedback in Distributed, Multi-User MIMO Systems. *Bilenne, O.*, +, *TSP 2020 6085-6100*

Large Intelligent Surface Aided Physical Layer Security Transmission. *Feng, B.*, +, *TSP 2020 5276-5291*

Maximum Likelihood Detection in the Presence of Non-Gaussian Jamming. *Almahorg, K.A.*, +, *TSP 2020 5722-5735*

Two-User SIMO Interference Channel With Treating Interference as Noise: Improper Signaling Versus Time-Sharing. *Hellings, C.*, +, *TSP 2020 6467-6480*

**Gaussian distribution**

A Second-Order Method for Fitting the Canonical Polyadic Decomposition With Non-Least-Squares Cost. *Vandecappelle, M.*, +, *TSP 2020 4454-4465*

On the Resolution Probability of Conditional and Unconditional Maximum Likelihood DoA Estimation. *Mestre, X.*, +, *TSP 2020 4656-4671*

Radar Adaptive Detection Architectures for Heterogeneous Environments. *Liu, J.*, +, *TSP 2020 4307-4319*

Rao-Based Detectors for Adaptive Target Detection in the Presence of Signal-Dependent Interference. *Ghohjvand, K.*, +, *TSP 2020 1662-1672*

Risk Convergence of Centered Kernel Ridge Regression With Large Dimensional Data. *Elkhalil, K.*, +, *TSP 2020 1574-1588*

Robust SINR-Constrained Symbol-Level Multiuser Precoding With Imperfect Channel Knowledge. *Haqiqatnejad, A.*, +, *TSP 2020 1837-1852*

Signal-Dependent Performance Analysis of Orthogonal Matching Pursuit for Exact Sparse Recovery. *Wen, J.*, +, *TSP 2020 5031-5046*

Solving Complex Quadratic Systems With Full-Rank Random Matrices. *Huang, S.*, +, *TSP 2020 4782-4796*

Stereo Acoustic Echo Cancellation Based on Maximum Likelihood Estimation With Inter-Channel-Correlated Echo Compensation. *Cho, B.J.*, +, *TSP 2020 5188-5203*

Student's t-VAR Modeling With Missing Data Via Stochastic EM and Gibbs Sampling. *Zhou, R.*, +, *TSP 2020 6198-6211*

Variance State Propagation for Structured Sparse Bayesian Learning. *Zhang, M.*, +, *TSP 2020 2386-2400*

**Gaussian noise**

Algebraic Complete Solution for Joint Source and Sensor Localization Using Time of Flight Measurements. *Le, T.*, +, *TSP 2020 1853-1869*

Approximation Algorithms for Training One-Node ReLU Neural Networks. *Dey, S.S.*, +, *TSP 2020 6696-6706*

Efficient Closed-Form Solution for Moving Target Localization in MIMO Radars With Minimum Number of Antennas. *Noroozi, A.*, +, *TSP 2020 2545-2557*

High-Resolution DOA Estimation Algorithm for a Single Acoustic Vector Sensor at Low SNR. *Zhang, J.*, +, *TSP 2020 6142-6158*

Joint Source and Sensor Localization by Angles of Arrival. *Le, T.*, +, *TSP 2020 6521-6534*

Localization of a Moving Source by Frequency Measurements. *Ahmed, M.M.*, +, *TSP 2020 4839-4854*

Multi-Target Detection With an Arbitrary Spacing Distribution. *Lan, T.*, +, *TSP 2020 1589-1601*

Multistatic Moving Object Localization by a Moving Transmitter of Unknown Location and Offset. *Zhang, Y.*, +, *TSP 2020 4438-4453*

Non-Parametric Decoupling of Pulse Pile-Up Under Gaussian Noise With Finite Data Sets. *Mclean, C.*, +, *TSP 2020 2114-2127*

Persymmetric Adaptive Detection of Distributed Targets With Unknown Steering Vectors. *Liu, J.*, +, *TSP 2020 4123-4134*

Quadratic FM Signal Detection and Parameter Estimation Using Coherently Integrated Trilinear Autocorrelation Function. *Zhang, J.*, +, *TSP 2020 621-633*

Reliable Recovery of Hierarchically Sparse Signals for Gaussian and Kronecker Product Measurements. *Roth, I.*, +, *TSP 2020 4002-4016*

Robust Matrix Completion via Maximum Correntropy Criterion and Half-Quadratic Optimization. *He, Y.*, +, *TSP 2020 181-195*

**Gaussian processes**

A Large Dimensional Study of Regularized Discriminant Analysis. *Elkhalil, K.*, +, *TSP 2020 2464-2479*

A Simple Derivation of AMP and its State Evolution via First-Order Cancellation. *Schniter, P.*, *TSP 2020 4283-4292*

- Asymptotic Performance of Discrete-Valued Vector Reconstruction via Box-Constrained Optimization With Sum of  $\ell_1$  Regularizers. *Hayakawa, R.*, +, *TSP 2020 4320-4335*
- Bayesian Nonnegative Matrix Factorization With Dirichlet Process Mixtures. *Li, C.*, +, *TSP 2020 3860-3870*
- Bayesian Spatial Field Reconstruction With Unknown Distortions in Sensor Networks. *Xiang, Q.*, +, *TSP 2020 4336-4351*
- Comments on “Deep Neural Networks With Random Gaussian Weights: A Universal Classification Strategy?”. *Gulcu, T.C.*, *TSP 2020 2401-2403*
- Computationally Efficient Distributed Multi-Sensor Fusion With Multi-Bernoulli Filter. *Yi, W.*, +, *TSP 2020 241-256*
- Continuous-Discrete Multiple Target Filtering: PMBM, PHD and CPHD Filter Implementations. *Garcia-Fernandez, A.F.*, +, *TSP 2020 1300-1314*
- Corrections to “Deep Neural Networks With Random Gaussian Weights: A Universal Classification Strategy?” [Jul 1, 2016 3444-3457]. *Giryas, R.*, +, *TSP 2020 529-531*
- Data-Driven Structured Noise Filtering via Common Dynamics Estimation. *Markovsky, L.*, +, *TSP 2020 3064-3073*
- Deviance Tests for Graph Estimation From Multi-Attribute Gaussian Data. *Tugnait, J.K.*, *TSP 2020 5632-5647*
- Diffuse Multipath Exploitation for Adaptive Detection of Range Distributed Targets. *Rong, Y.*, +, *TSP 2020 1197-1212*
- Direct Target Tracking by Distributed Gaussian Particle Filtering for Heterogeneous Networks. *Xia, W.*, +, *TSP 2020 1361-1373*
- Distributed Multi-Sensor Fusion of PHD Filters With Different Sensor Fields of View. *Yi, W.*, +, *TSP 2020 5204-5218*
- Eigenvectors of Ordinary, Generalized, Centered and Offset Discrete Fourier Transforms Based on Lookup Table Methods: Efficiency and Approximation Uses. *Hsue, W.*, *TSP 2020 1776-1791*
- Fusion of Labeled RFS Densities With Minimum Information Loss. *Gao, L.*, +, *TSP 2020 5855-5868*
- Gaussian Process Reinforcement Learning for Fast Opportunistic Spectrum Access. *Yan, Z.*, +, *TSP 2020 2613-2628*
- Guaranteed Recovery of One-Hidden-Layer Neural Networks via Cross Entropy. *Fu, H.*, +, *TSP 2020 3225-3235*
- Improved Most Likely Heteroscedastic Gaussian Process Regression via Bayesian Residual Moment Estimator. *Zhang, Q.*, +, *TSP 2020 3450-3460*
- Learning Nonnegative Factors From Tensor Data: Probabilistic Modeling and Inference Algorithm. *Cheng, L.*, +, *TSP 2020 1792-1806*
- Linear Multiple Low-Rank Kernel Based Stationary Gaussian Processes Regression for Time Series. *Yin, F.*, +, *TSP 2020 5260-5275*
- Lower Bound for RIP Constants and Concentration of Sum of Top Order Statistics. *Li, G.*, +, *TSP 2020 3169-3178*
- Multi-Class Random Matrix Filtering for Adaptive Learning. *Braca, P.*, +, *TSP 2020 359-373*
- Multi-Target Detection With an Arbitrary Spacing Distribution. *Lan, T.*, +, *TSP 2020 1589-1601*
- Multiple Bayesian Filtering as Message Passing. *Vitetta, G.M.*, +, *TSP 2020 1002-1020*
- On Arithmetic Average Fusion and Its Application for Distributed Multi-Bernoulli Multitarget Tracking. *Li, T.*, +, *TSP 2020 2883-2896*
- On the Convergence of a Bayesian Algorithm for Joint Dictionary Learning and Sparse Recovery. *Joseph, G.*, +, *TSP 2020 343-358*
- On the Sample Complexity of Graphical Model Selection From Non-Stationary Samples. *Tran, N.*, +, *TSP 2020 17-32*
- Performance Analysis of Deficient Length Quaternion Least Mean Square Adaptive Filters. *Xiang, M.*, +, *TSP 2020 65-80*
- Source Separation With Side Information Based on Gaussian Mixture Models With Application in Art Investigation. *Sabetsarvestani, Z.*, +, *TSP 2020 558-572*
- Sparse Bayesian DOA Estimation Using Hierarchical Synthesis Lasso Priors for Off-Grid Signals. *Yang, J.*, +, *TSP 2020 872-884*
- Stochastic Analysis of the Recursive Least Squares Algorithm for Cyclostationary Colored Inputs. *Eweda, E.*, +, *TSP 2020 676-686*
- Student's tVAR Modeling With Missing Data Via Stochastic EM and Gibbs Sampling. *Zhou, R.*, +, *TSP 2020 6198-6211*
- Target Detection With Imperfect Waveform Separation in Distributed MIMO Radar. *Wang, P.*, +, *TSP 2020 793-807*
- Training Data Assisted Anomaly Detection of Multi-Pixel Targets In Hyperspectral Imagery. *Liu, J.*, +, *TSP 2020 3022-3032*
- Variance State Propagation for Structured Sparse Bayesian Learning. *Zhang, M.*, +, *TSP 2020 2386-2400*
- Wavelet Based Multivariate Signal Denoising Using Mahalanobis Distance and EDF Statistics. *Naveed, K.*, +, *TSP 2020 5997-6010*
- Genetics**
- Distributions and Power of Optimal Signal-Detection Statistics in Finite Case. *Zhang, H.*, +, *TSP 2020 1021-1033*
- Genomics**
- Distributions and Power of Optimal Signal-Detection Statistics in Finite Case. *Zhang, H.*, +, *TSP 2020 1021-1033*
- Geometry**
- High-Resolution DOA Estimation Algorithm for a Single Acoustic Vector Sensor at Low SNR. *Zhang, J.*, +, *TSP 2020 6142-6158*
- NOMA-Aided UAV Communications over Correlated Rician Shadowed Fading Channels. *Ernest, T.Z.H.*, +, *TSP 2020 3103-3116*
- Optimal Sensor Placement for 2-D Range-Only Target Localization in Constrained Sensor Geometry. *Sadeghi, M.*, +, *TSP 2020 2316-2327*
- Unraveling the Veil of Subspace RIP Through Near-Isometry on Subspaces. *Xu, X.*, +, *TSP 2020 3117-3131*
- Geophysical image processing**
- A Low-Rank Tensor Dictionary Learning Method for Hyperspectral Image Denoising. *Gong, X.*, +, *TSP 2020 1168-1180*
- A Variational Bayes Approach to Adaptive Radio Tomography. *Lee, D.*, +, *TSP 2020 3779-3792*
- Hybrid Inexact BCD for Coupled Structured Matrix Factorization in Hyperspectral Super-Resolution. *Wu, R.*, +, *TSP 2020 1728-1743*
- Hyperspectral Super-Resolution With Coupled Tucker Approximation: Recoverability and SVD-Based Algorithms. *Prevost, C.*, +, *TSP 2020 931-946*
- Training Data Assisted Anomaly Detection of Multi-Pixel Targets In Hyperspectral Imagery. *Liu, J.*, +, *TSP 2020 3022-3032*
- Geophysical signal processing**
- Localized Analysis of Signals on the Sphere Over Polygon Regions. *Aslam, A.*, +, *TSP 2020 4568-4582*
- Global Positioning System**
- Exploring Positive Noise in Estimation Theory. *Radnosrati, K.*, +, *TSP 2020 3590-3602*
- Golay codes**
- Constructions of Cross Z-Complementary Pairs With New Lengths. *Adhikary, A.R.*, +, *TSP 2020 4700-4712*
- Cross Z-Complementary Pairs for Optimal Training in Spatial Modulation Over Frequency Selective Channels. *Liu, Z.*, +, *TSP 2020 1529-1543*
- Gradient methods**
- A Generalized Accelerated Composite Gradient Method: Uniting Nesterov's Fast Gradient Method and FISTA. *Florea, M.I.*, +, *TSP 2020 3033-3048*
- A Provably Communication-Efficient Asynchronous Distributed Inference Method for Convex and Nonconvex Problems. *Ren, J.*, +, *TSP 2020 3325-3340*
- A Second-Order Method for Fitting the Canonical Polyadic Decomposition With Non-Least-Squares Cost. *Vandecappelle, M.*, +, *TSP 2020 4454-4465*
- Adaptation and Learning Over Networks Under Subspace Constraints—Part I: Stability Analysis. *Nassif, R.*, +, *TSP 2020 1346-1360*
- Adaptation and Learning Over Networks Under Subspace Constraints—Part II: Performance Analysis. *Nassif, R.*, +, *TSP 2020 2948-2962*
- Algorithms for Change Detection With Sparse Signals. *Jain, A.*, +, *TSP 2020 1331-1345*
- An Online Learning Algorithm for Distributed Task Offloading in Multi-Access Edge Computing. *Sun, Z.*, +, *TSP 2020 3090-3102*
- Best Pair Formulation & Accelerated Scheme for Non-Convex Principal Component Pursuit. *Dutta, A.*, +, *TSP 2020 6128-6141*
- Blind Deconvolution Using Modulated Inputs. *Ahmed, A.*, *TSP 2020 374-387*
- Block-Randomized Stochastic Proximal Gradient for Low-Rank Tensor Factorization. *Fu, X.*, +, *TSP 2020 2170-2185*
- Can Primal Methods Outperform Primal-Dual Methods in Decentralized Dynamic Optimization?. *Yuan, K.*, +, *TSP 2020 4466-4480*

- Convergence of Distributed Stochastic Variance Reduced Methods Without Sampling Extra Data. *Cen, S.*, +, *TSP 2020 3976-3989*
- Decentralized Accelerated Gradient Methods With Increasing Penalty Parameters. *Li, H.*, +, *TSP 2020 4855-4870*
- Distributed Approximate Newton's Method Robust to Byzantine Attackers. *Cao, X.*, +, *TSP 2020 6011-6025*
- Distributed Dual Gradient Tracking for Resource Allocation in Unbalanced Networks. *Zhang, J.*, +, *TSP 2020 2186-2198*
- Distributed Online Convex Optimization With Time-Varying Coupled Inequality Constraints. *Yi, X.*, +, *TSP 2020 731-746*
- Distributed Signal Processing and Optimization Based on In-Network Subspace Projections. *Di Lorenzo, P.*, +, *TSP 2020 2061-2076*
- Feature Graph Learning for 3D Point Cloud Denoising. *Hu, W.*, +, *TSP 2020 2841-2856*
- Federated Variance-Reduced Stochastic Gradient Descent With Robustness to Byzantine Attacks. *Wu, Z.*, +, *TSP 2020 4583-4596*
- Fixed-Point Minimum Error Entropy With Fiducial Points. *Xie, Y.*, +, *TSP 2020 3824-3833*
- Guaranteed Recovery of One-Hidden-Layer Neural Networks via Cross Entropy. *Fu, H.*, +, *TSP 2020 3225-3235*
- High-Dimensional Stochastic Gradient Quantization for Communication-Efficient Edge Learning. *Du, Y.*, +, *TSP 2020 2128-2142*
- Hybrid Block Successive Approximation for One-Sided Non-Convex Min-Max Problems: Algorithms and Applications. *Lu, S.*, +, *TSP 2020 3676-3691*
- Hybrid Inexact BCD for Coupled Structured Matrix Factorization in Hyperspectral Super-Resolution. *Wu, R.*, +, *TSP 2020 1728-1743*
- Inexact Block Coordinate Descent Algorithms for Nonsmooth Nonconvex Optimization. *Yang, Y.*, +, *TSP 2020 947-961*
- Large Intelligent Surface Aided Physical Layer Security Transmission. *Feng, B.*, +, *TSP 2020 5276-5291*
- Machine Learning at the Wireless Edge: Distributed Stochastic Gradient Descent Over-the-Air. *Mohammadi Amiri, M.*, +, *TSP 2020 2155-2169*
- Modeling of Spatio-Temporal Hawkes Processes With Randomized Kernels. *Ilhan, F.*, +, *TSP 2020 4946-4958*
- Newton-Step-Based Hard Thresholding Algorithms for Sparse Signal Recovery. *Meng, N.*, +, *TSP 2020 6594-6606*
- On Analog Gradient Descent Learning Over Multiple Access Fading Channels. *Sery, T.*, +, *TSP 2020 2897-2911*
- On the Influence of Bias-Correction on Distributed Stochastic Optimization. *Yuan, K.*, +, *TSP 2020 4352-4367*
- Online Proximal Learning Over Jointly Sparse Multitask Networks With  $\ell_{\infty,1}$  Regularization. *Jin, D.*, +, *TSP 2020 6319-6335*
- Online Trajectory Optimization Using Inexact Gradient Feedback for Time-Varying Environments. *Nutalapati, M.K.*, +, *TSP 2020 4824-4838*
- Optimal Local Differentially Private Quantization. *Zhang, R.*, +, *TSP 2020 6509-6520*
- Penalty Dual Decomposition Method for Nonsmooth Nonconvex Optimization—Part I: Algorithms and Convergence Analysis. *Shi, Q.*, +, *TSP 2020 4108-4122*
- Phase-Only Robust Minimum Dispersion Beamforming. *Jiang, X.*, +, *TSP 2020 5664-5679*
- Privacy-Preserving Incremental ADMM for Decentralized Consensus Optimization. *Ye, Y.*, +, *TSP 2020 5842-5854*
- Quadratic Optimization for Unimodular Sequence Design via an ADPM Framework. *Yu, X.*, +, *TSP 2020 3619-3634*
- Quickly Finding the Best Linear Model in High Dimensions via Projected Gradient Descent. *Sattar, Y.*, +, *TSP 2020 818-829*
- Riemannian Geometric Optimization Methods for Joint Design of Transmit Sequence and Receive Filter on MIMO Radar. *Li, J.*, +, *TSP 2020 5602-5616*
- Robust Matrix Completion via Maximum Correntropy Criterion and Half-Quadratic Optimization. *He, Y.*, +, *TSP 2020 181-195*
- Safe Squeezing for Antisparse Coding. *Elvira, C.*, +, *TSP 2020 3252-3265*
- Tune Smarter Not Harder: A Principled Approach to Tuning Learning Rates for Shallow Nets. *Tholeti, T.*, +, *TSP 2020 5063-5078*
- Two-User SIMO Interference Channel With Treating Interference as Noise: Improper Signaling Versus Time-Sharing. *Hellings, C.*, +, *TSP 2020 6467-6480*
- Unified and Self-Stabilized Parallel Algorithm for Multiple Generalized Eigenpairs Extraction. *Kong, X.*, +, *TSP 2020 3644-3659*
- Variance-Reduced Decentralized Stochastic Optimization With Accelerated Convergence. *Xin, R.*, +, *TSP 2020 6255-6271*
- Variance-Reduced Stochastic Learning Under Random Reshuffling. *Ying, B.*, +, *TSP 2020 1390-1408*
- Graph theory**
- 3-D Distributed Localization With Mixed Local Relative Measurements. *Fang, X.*, +, *TSP 2020 5869-5881*
- Blind Community Detection From Low-Rank Excitations of a Graph Filter. *Wai, H.*, +, *TSP 2020 436-451*
- Compressed Sensing Using Binary Matrices of Nearly Optimal Dimensions. *Lotfi, M.*, +, *TSP 2020 3008-3021*
- Deterministic Completion of Rectangular Matrices Using Asymmetric Ramanujan Graphs: Exact and Stable Recovery. *Burnwal, S.P.*, +, *TSP 2020 3834-3848*
- Deviance Tests for Graph Estimation From Multi-Attribute Gaussian Data. *Tugnait, J.K.*, *TSP 2020 5632-5647*
- Distributed Dual Gradient Tracking for Resource Allocation in Unbalanced Networks. *Zhang, J.*, +, *TSP 2020 2186-2198*
- Estimating Network Processes via Blind Identification of Multiple Graph Filters. *Zhu, Y.*, +, *TSP 2020 3049-3063*
- Exact Blind Community Detection From Signals on Multiple Graphs. *Roddenberry, T.M.*, +, *TSP 2020 5016-5030*
- Fast Graph Sampling Set Selection Using Gershgorin Disc Alignment. *Bai, Y.*, +, *TSP 2020 2419-2434*
- Feature Graph Learning for 3D Point Cloud Denoising. *Hu, W.*, +, *TSP 2020 2841-2856*
- Gated Graph Recurrent Neural Networks. *Ruiz, L.*, +, *TSP 2020 6303-6318*
- Generalized Sampling on Graphs With Subspace and Smoothness Priors. *Tanaka, Y.*, +, *TSP 2020 2272-2286*
- Graph Fourier Transform: A Stable Approximation. *Domingos, J.*, +, *TSP 2020 4422-4437*
- Graph Sampling for Matrix Completion Using Recurrent Gershgorin Disc Shift. *Wang, F.*, +, *TSP 2020 2814-2829*
- Graph Signal Processing in the Presence of Topology Uncertainties. *Ceci, E.*, +, *TSP 2020 1558-1573*
- Graph-Adaptive Semi-Supervised Tracking of Dynamic Processes Over Switching Network Modes. *Lu, Q.*, +, *TSP 2020 2586-2597*
- Graph-Based Learning Under Perturbations via Total Least-Squares. *Ceci, E.*, +, *TSP 2020 2870-2882*
- IIR Filtering on Graphs With Random Node-Asynchronous Updates. *Teke, O.*, +, *TSP 2020 3945-3960*
- Invariance-Preserving Localized Activation Functions for Graph Neural Networks. *Ruiz, L.*, +, *TSP 2020 127-141*
- Learning Latent Features With Pairwise Penalties in Low-Rank Matrix Completion. *Ji, K.*, +, *TSP 2020 4210-4225*
- Nonlinear Filtering With Variable Bandwidth Exponential Kernels. *Taseska, M.*, +, *TSP 2020 314-326*
- On Maintaining Linear Convergence of Distributed Learning and Optimization Under Limited Communication. *Magnusson, S.*, +, *TSP 2020 6101-6116*
- Online Data Dimensionality Reduction and Reconstruction Using Graph Filtering. *Schizas, I.D.*, *TSP 2020 3871-3886*
- Optimal Wireless Resource Allocation With Random Edge Graph Neural Networks. *Eisen, M.*, +, *TSP 2020 2977-2991*
- Sampling and Inference of Networked Dynamics Using Log-Koopman Nonlinear Graph Fourier Transform. *Wei, Z.*, +, *TSP 2020 6187-6197*
- Scalable and Robust Community Detection With Randomized Sketching. *Rahmani, M.*, +, *TSP 2020 962-977*
- Stability Properties of Graph Neural Networks. *Gama, F.*, +, *TSP 2020 5680-5695*
- Subspace Learning and Feature Selection via Orthogonal Mapping. *Mandanas, F.D.*, +, *TSP 2020 1034-1047*
- Tensor Graph Convolutional Networks for Multi-Relational and Robust Learning. *Ioannidis, V.N.*, +, *TSP 2020 6535-6546*
- Topological Signal Processing Over Simplicial Complexes. *Barbarossa, S.*, +, *TSP 2020 2992-3007*

**Greedy algorithms**

An Online Learning Algorithm for Distributed Task Offloading in Multi-Access Edge Computing. *Sun, Z.*, +, *TSP 2020 3090-3102*

Distributed Sensing With Orthogonal Multiple Access: To Code or not to Code?. *Dong, Y.*, *TSP 2020 1315-1330*

Efficient Least Residual Greedy Algorithms for Sparse Recovery. *Leibovitz, G.*, +, *TSP 2020 3707-3722*

Greedy Algorithms for Sparse and Positive Signal Recovery Based on Bit-Wise MAP Detection. *Chae, J.*, +, *TSP 2020 4017-4029*

**Gyroscopes**

A Novel Algorithm for Optimal Placement of Multiple Inertial Sensors to Improve the Sensing Accuracy. *Sahu, N.*, +, *TSP 2020 142-154*

**H****Hadamard matrices**

Unraveling the Veil of Subspace RIP Through Near-Isometry on Subspaces. *Xu, X.*, +, *TSP 2020 3117-3131*

**Hankel matrices**

Alternating Group Lasso for Block-Term Tensor Decomposition and Application to ECG Source Separation. *Goulart, J.H.d.M.*, +, *TSP 2020 2682-2696*

Low-Rank Hankel Matrix Completion for Robust Time-Frequency Analysis. *Zhang, S.*, +, *TSP 2020 6171-6186*

**Hidden Markov models**

A Statistical Time-Frequency Model for Non-stationary Time Series Analysis. *Luo, Y.*, +, *TSP 2020 4757-4772*

A Variational Bayes Approach to Adaptive Radio Tomography. *Lee, D.*, +, *TSP 2020 3779-3792*

Collaborative Sequential State Estimation Under Unknown Heterogeneous Noise Covariance Matrices. *Dedecius, K.*, +, *TSP 2020 5365-5378*

Inverse Filtering for Hidden Markov Models With Applications to Counter-Adversarial Autonomous Systems. *Mattila, R.*, +, *TSP 2020 4987-5002*

Multilabel Classification With Multivariate Time Series Predictors. *Che, Y.*, +, *TSP 2020 5696-5705*

Tractable Inference and Observation Likelihood Evaluation in Latent Structure Influence Models. *Karimi, S.*, +, *TSP 2020 5736-5745*

**Higher order statistics**

A MIMO Version of the Reed-Yu Detector and Its Connection to the Wilks Lambda and Hotelling  $T^2$  Statistics. *Butler, R.W.*, +, *TSP 2020 2925-2934*

High-Resolution DOA Estimation Algorithm for a Single Acoustic Vector Sensor at Low SNR. *Zhang, J.*, +, *TSP 2020 6142-6158*

Sparse Bayesian Learning With Dynamic Filtering for Inference of Time-Varying Sparse Signals. *O'Shaughnessy, M.R.*, +, *TSP 2020 388-403*

**Hilbert spaces**

Sparse Multiresolution Representations With Adaptive Kernels. *Peifer, M.*, +, *TSP 2020 2031-2044*

**Horn antennas**

Doppler Shifting Technique for Generating Multi-Frames of Video SAR via Sub-Aperture Signal Processing. *Kim, C.K.*, +, *TSP 2020 3990-4001*

**Hyperbolic equations**

Generalized Rational Variable Projection With Application in ECG Compression. *Kovacs, P.*, +, *TSP 2020 478-492*

**Hyperspectral imaging**

A Low-Rank Tensor Dictionary Learning Method for Hyperspectral Image Denoising. *Gong, X.*, +, *TSP 2020 1168-1180*

Hybrid Inexact BCD for Coupled Structured Matrix Factorization in Hyperspectral Super-Resolution. *Wu, R.*, +, *TSP 2020 1728-1743*

Training Data Assisted Anomaly Detection of Multi-Pixel Targets In Hyperspectral Imagery. *Liu, J.*, +, *TSP 2020 3022-3032*

**I****Identification**

Data-Driven Structured Noise Filtering via Common Dynamics Estimation. *Markovsky, I.*, +, *TSP 2020 3064-3073*

Estimating Network Processes via Blind Identification of Multiple Graph Filters. *Zhu, Y.*, +, *TSP 2020 3049-3063*

Orthogonal Periodic Sequences for the Identification of Functional Link Polynomial Filters. *Carini, A.*, +, *TSP 2020 5308-5321*

**IEEE publishing**

List of Reviewers. *TSP 2020 6707-6717*

**IIR filters**

IIR Filtering on Graphs With Random Node-Asynchronous Updates. *Teke, O.*, +, *TSP 2020 3945-3960*

Robust and Computationally Efficient Digital IIR Filter Synthesis and Stability Analysis Under Finite Precision Implementations. *Ko, H.*, +, *TSP 2020 1807-1822*

**Image classification**

Defect Detection and Classification by Training a Generic Convolutional Neural Network Encoder. *Dong, X.*, +, *TSP 2020 6055-6069*

Multilabel Classification With Multivariate Time Series Predictors. *Che, Y.*, +, *TSP 2020 5696-5705*

**Image coding**

Compressive Sensing Using Iterative Hard Thresholding With Low Precision Data Representation: Theory and Applications. *Gurel, N.M.*, +, *TSP 2020 4268-4282*

Source Separation With Side Information Based on Gaussian Mixture Models With Application in Art Investigation. *Sabetsarvestani, Z.*, +, *TSP 2020 558-572*

**Image color analysis**

Quaternion-Based Bilinear Factor Matrix Norm Minimization for Color Image Inpainting. *Miao, J.*, +, *TSP 2020 5617-5631*

**Image denoising**

A Deterministic Theory for Exact Non-Convex Phase Retrieval. *Yonel, B.*, +, *TSP 2020 4612-4626*

A Low-Rank Tensor Dictionary Learning Method for Hyperspectral Image Denoising. *Gong, X.*, +, *TSP 2020 1168-1180*

Analyzing Upper Bounds on Mean Absolute Errors for Deep Neural Network-Based Vector-to-Vector Regression. *Qi, J.*, +, *TSP 2020 3411-3422*

Bilinear Compressed Sensing Under Known Signs via Convex Programming. *Aghasi, A.*, +, *TSP 2020 6366-6379*

Feature Graph Learning for 3D Point Cloud Denoising. *Hu, W.*, +, *TSP 2020 2841-2856*

**Image filtering**

Subsampling Generative Adversarial Networks: Density Ratio Estimation in Feature Space With Softplus Loss. *Ding, X.*, +, *TSP 2020 1910-1922*

**Image fusion**

A Low-Rank Tensor Dictionary Learning Method for Hyperspectral Image Denoising. *Gong, X.*, +, *TSP 2020 1168-1180*

Computationally Efficient Distributed Multi-Sensor Fusion With Multi-Bernoulli Filter. *Yi, W.*, +, *TSP 2020 241-256*

Hyperspectral Super-Resolution With Coupled Tucker Approximation: Recoverability and SVD-Based Algorithms. *Prevost, C.*, +, *TSP 2020 931-946*

**Image motion analysis**

Multilabel Classification With Multivariate Time Series Predictors. *Che, Y.*, +, *TSP 2020 5696-5705*

**Image recognition**

Efficient Generalized Boundary Detection Using a Sliding Information Distance. *Field, R.*, +, *TSP 2020 6394-6401*

**Image reconstruction**

Bilinear Compressed Sensing Under Known Signs via Convex Programming. *Aghasi, A.*, +, *TSP 2020 6366-6379*

FRI Sensing: Retrieving the Trajectory of a Mobile Sensor From Its Temporal Samples. *Guo, R.*, +, *TSP 2020 5533-5545*

Generative Models for Low-Dimensional Video Representation and Reconstruction. *Hyder, R.*, +, *TSP 2020 1688-1701*

Multi-Target Detection With an Arbitrary Spacing Distribution. *Lan, T.*, +, *TSP 2020 1589-1601*

Perturbed Amplitude Flow for Phase Retrieval. *Gao, B.*, +, *TSP 2020 5427-5440*

Tensor Completion From Regular Sub-Nyquist Samples. *Kanatsoulis, C.I.*, +, *TSP 2020 1-16*

**Image representation**

A Low-Rank Tensor Dictionary Learning Method for Hyperspectral Image Denoising. *Gong, X.*, +, *TSP 2020 1168-1180*

Compressive Sensing Using Iterative Hard Thresholding With Low Precision Data Representation: Theory and Applications. *Gurel, N.M.*, +, *TSP 2020 4268-4282*

Efficient Attributed Scatter Center Extraction Based on Image-Domain Sparse Representation. *Yang, D.*, +, *TSP 2020 4368-4381*

Generative Models for Low-Dimensional Video Representation and Reconstruction. *Hyder, R.*, +, *TSP 2020 1688-1701*

Learning Deep Analysis Dictionaries for Image Super-Resolution. *Huang, J.*, +, *TSP 2020 6633-6648*

Multilabel Classification With Multivariate Time Series Predictors. *Che, Y.*, +, *TSP 2020 5696-5705*

Quaternion-Based Bilinear Factor Matrix Norm Minimization for Color Image Inpainting. *Miao, J.*, +, *TSP 2020 5617-5631*

Solving Complex Quadratic Systems With Full-Rank Random Matrices. *Huang, S.*, +, *TSP 2020 4782-4796*

#### Image resolution

Decentralized Expectation Consistent Signal Recovery for Phase Retrieval. *Wang, C.*, +, *TSP 2020 1484-1499*

Generative Models for Low-Dimensional Video Representation and Reconstruction. *Hyder, R.*, +, *TSP 2020 1688-1701*

Hybrid Inexact BCD for Coupled Structured Matrix Factorization in Hyperspectral Super-Resolution. *Wu, R.*, +, *TSP 2020 1728-1743*

Hyperspectral Super-Resolution With Coupled Tucker Approximation: Recoverability and SVD-Based Algorithms. *Prevost, C.*, +, *TSP 2020 931-946*

Learning Deep Analysis Dictionaries for Image Super-Resolution. *Huang, J.*, +, *TSP 2020 6633-6648*

Variational Temporal Deep Generative Model for Radar HRRP Target Recognition. *Guo, D.*, +, *TSP 2020 5795-5809*

#### Image restoration

Quaternion-Based Bilinear Factor Matrix Norm Minimization for Color Image Inpainting. *Miao, J.*, +, *TSP 2020 5617-5631*

#### Image retrieval

A Deterministic Theory for Exact Non-Convex Phase Retrieval. *Yonel, B.*, +, *TSP 2020 4612-4626*

#### Image sampling

FRI Sensing: Retrieving the Trajectory of a Mobile Sensor From Its Temporal Samples. *Guo, R.*, +, *TSP 2020 5533-5545*

Subsampling Generative Adversarial Networks: Density Ratio Estimation in Feature Space With Softplus Loss. *Ding, X.*, +, *TSP 2020 1910-1922*

Tensor Completion From Regular Sub-Nyquist Samples. *Kanatsoulis, C.I.*, +, *TSP 2020 1-16*

#### Image segmentation

Compressive Sensing Using Iterative Hard Thresholding With Low Precision Data Representation: Theory and Applications. *Gurel, N.M.*, +, *TSP 2020 4268-4282*

#### Image sensors

FRI Sensing: Retrieving the Trajectory of a Mobile Sensor From Its Temporal Samples. *Guo, R.*, +, *TSP 2020 5533-5545*

#### Image sequences

Generative Models for Low-Dimensional Video Representation and Reconstruction. *Hyder, R.*, +, *TSP 2020 1688-1701*

#### Image texture

FRI Sensing: Retrieving the Trajectory of a Mobile Sensor From Its Temporal Samples. *Guo, R.*, +, *TSP 2020 5533-5545*

#### Image watermarking

Novel Fractional Wavelet Packet Transform: Theory, Implementation, and Applications. *Shi, J.*, +, *TSP 2020 4041-4054*

#### Impulse noise

Diffusion Normalized Least Mean M-estimate Algorithms: Design and Performance Analysis. *Yu, Y.*, +, *TSP 2020 2199-2214*

Maximum Total Complex Correntropy for Adaptive Filter. *Qian, G.*, +, *TSP 2020 978-989*

#### Independent component analysis

A Spatial-Temporal Subspace-Based Compressive Channel Estimation Technique in Unknown Interference MIMO Channels. *Takano, Y.*, +, *TSP 2020 300-313*

A Unified Probabilistic View on Spatially Informed Source Separation and Extraction Based on Independent Vector Analysis. *Brendel, A.*, +, *TSP 2020 3545-3558*

Cramér-Rao Bounds for Complex-Valued Independent Component Extraction: Determined and Piecewise Determined Mixing Models. *Kautsky, V.*, +, *TSP 2020 5230-5243*

Performance Bounds for Complex-Valued Independent Vector Analysis. *Kautsky, V.*, +, *TSP 2020 4258-4267*

#### Indoor communication

Sherman-Morrison Formula Aided Adaptive Channel Estimation for Underwater Visible Light Communication With Fractionally-Sampled OFDM. *Chen, J.*, +, *TSP 2020 2784-2798*

#### Inertial navigation

A Novel Algorithm for Optimal Placement of Multiple Inertial Sensors to Improve the Sensing Accuracy. *Sahu, N.*, +, *TSP 2020 142-154*

#### Inertial systems

A Novel Algorithm for Optimal Placement of Multiple Inertial Sensors to Improve the Sensing Accuracy. *Sahu, N.*, +, *TSP 2020 142-154*

#### Inference mechanisms

Graph-Adaptive Semi-Supervised Tracking of Dynamic Processes Over Switching Network Modes. *Lu, Q.*, +, *TSP 2020 2586-2597*

Learning Nonnegative Factors From Tensor Data: Probabilistic Modeling and Inference Algorithm. *Cheng, L.*, +, *TSP 2020 1792-1806*

Modeling of Spatio-Temporal Hawkes Processes With Randomized Kernels. *Ilhan, F.*, +, *TSP 2020 4946-4958*

Target Localization by Unlabeled Range Measurements. *Wang, G.*, +, *TSP 2020 6607-6620*

Tractable Inference and Observation Likelihood Evaluation in Latent Structure Influence Models. *Karimi, S.*, +, *TSP 2020 5736-5745*

Variational Temporal Deep Generative Model for Radar HRRP Target Recognition. *Guo, D.*, +, *TSP 2020 5795-5809*

#### Information theory

Algorithms for Change Detection With Sparse Signals. *Jain, A.*, +, *TSP 2020 1331-1345*

Defining Fundamental Frequency for Almost Harmonic Signals. *Elvander, F.*, +, *TSP 2020 6453-6466*

Generalized Fixed-Point Continuation Method: Convergence and Application. *Xiao, P.*, +, *TSP 2020 5746-5758*

#### Intelligent materials

Large Intelligent Surface Aided Physical Layer Security Transmission. *Feng, B.*, +, *TSP 2020 5276-5291*

#### Interference (signal)

An Interference-Tolerant Algorithm for Wide-Band Moving Source Passive Localization. *Napolitano, A.*, *TSP 2020 3471-3485*

Multi-Pattern Recognition Through Maximization of Signal-to-Peak-Interference Ratio With Application to Neural Spike Sorting. *Wouters, J.*, +, *TSP 2020 6240-6254*

Robust Adaptive Beamforming Based on Linearly Modified Atomic-Norm Minimization With Target Contaminated Data. *Zhang, X.*, +, *TSP 2020 5138-5151*

#### Interference suppression

Aperture-Level Simultaneous Transmit and Receive With Digital Phased Arrays. *Cummings, I.T.*, +, *TSP 2020 1243-1258*

Binary Sequence Set Design for Interferer Rejection in Multi-Branch Modulation. *Mo, D.*, +, *TSP 2020 3769-3778*

Frame Repetition: A Solution to Imaginary Interference Cancellation in FBMC/OQAM Systems. *Kong, D.*, +, *TSP 2020 1259-1273*

Generalized Fast-Convolution-Based Filtered-OFDM: Techniques and Application to 5G New Radio. *Yli-Kaakinen, J.*, +, *TSP 2020 1213-1228*

Lossless Dimension Reduction for Integer Least Squares With Application to Sphere Decoding. *Neinavaie, M.*, +, *TSP 2020 6547-6561*

Multipath Suppression for Continuous Wave Radar via Slepian Sequences. *Day, B.P.*, +, *TSP 2020 548-557*

On the Design of Multi-Spectrally Constrained Constant Modulus Radar Signals. *Aubry, A.*, +, *TSP 2020 2231-2243*

Suboptimal Low Complexity Joint Multi-Target Detection and Localization for Non-Coherent MIMO Radar With Widely Separated Antennas. *Yi, W.*, +, *TSP 2020 901-916*

**Internet**

Nonsmooth Optimization Algorithms for Multicast Beamforming in Content-Centric Fog Radio Access Networks. *Nguyen, H.T.*, +, *TSP 2020 1455-1469*

**Internet of Things**

Blind Over-the-Air Computation and Data Fusion via Provable Wirtinger Flow. *Dong, J.*, +, *TSP 2020 1136-1151*

Dynamic Sensor Subset Selection for Centralized Tracking of an IID Process. *Chattopadhyay, A.*, +, *TSP 2020 3209-3224*

Robust Beamforming for NOMA-Based Cellular Massive IoT With SWIPT. *Qi, Q.*, +, *TSP 2020 211-224*

**Interpolation**

A New Class of Explicit Interpolatory Splines and Related Measurement Estimation. *Chen, J.*, +, *TSP 2020 2799-2813*

Components Separation Algorithm for Localization and Classification of Mixed Near-Field and Far-Field Sources in Multipath Propagation. *Molaei, A.M.*, +, *TSP 2020 404-419*

Continuous-Domain Signal Reconstruction Using  $L_p$ -Norm Regularization. *Bohra, P.*, +, *TSP 2020 4543-4554*

Convolution Idempotents With a Given Zero-Set. *Siripuram, A.*, +, *TSP 2020 4773-4781*

Convolutional Dictionary Learning With Grid Refinement. *Song, A.H.*, +, *TSP 2020 2558-2573*

Turing Meets Shannon: Computable Sampling Type Reconstruction With Error Control. *Boche, H.*, +, *TSP 2020 6350-6365*

**Intersymbol interference**

Blind Interference Alignment With ISI: A New Look at OFDM for  $K$ -User Interference Channels. *Lee, B.*, +, *TSP 2020 4497-4512*

CSI-Independent Non-Linear Signal Detection in Molecular Communications. *Li, B.*, +, *TSP 2020 97-112*

**Inverse problems**

Bilinear Compressed Sensing Under Known Signs via Convex Programming. *Aghasi, A.*, +, *TSP 2020 6366-6379*

Distributed Coding of Quantized Random Projections. *Goukhshtein, M.*, +, *TSP 2020 5924-5939*

Identifying Cognitive Radars - Inverse Reinforcement Learning Using Revealed Preferences. *Krishnamurthy, V.*, +, *TSP 2020 4529-4542*

SPOQ $\ell_p$ -Over- $\ell_q$  Regularization for Sparse Signal Recovery Applied to Mass Spectrometry. *Cherni, A.*, +, *TSP 2020 6070-6084*

**Investment**

Understanding the Quintile Portfolio. *Zhou, R.*, +, *TSP 2020 4030-4040*

**Iterative decoding**

Iterative and Adjustable Soft List Decoding for Polar Codes. *Feng, B.*, +, *TSP 2020 5559-5572*

**Iterative methods**

A Deterministic Theory for Exact Non-Convex Phase Retrieval. *Yonel, B.*, +, *TSP 2020 4612-4626*

A Dimension Reduction-Based Joint Activity Detection and Channel Estimation Algorithm for Massive Access. *Shao, X.*, +, *TSP 2020 420-435*

A Generalized Accelerated Composite Gradient Method: Uniting Nesterov's Fast Gradient Method and FISTA. *Florea, M.I.*, +, *TSP 2020 3033-3048*

A Grant-Free Method for Massive Machine-Type Communication With Backward Activity Level Estimation. *Xiao, H.*, +, *TSP 2020 6665-6680*

A Novel Algorithm for Optimal Placement of Multiple Inertial Sensors to Improve the Sensing Accuracy. *Sahu, N.*, +, *TSP 2020 142-154*

A Spatial-Temporal Subspace-Based Compressive Channel Estimation Technique in Unknown Interference MIMO Channels. *Takano, Y.*, +, *TSP 2020 300-313*

Adaptation and Learning Over Networks Under Subspace Constraints—Part I: Stability Analysis. *Nassif, R.*, +, *TSP 2020 1346-1360*

Adaptation and Learning Over Networks Under Subspace Constraints—Part II: Performance Analysis. *Nassif, R.*, +, *TSP 2020 2948-2962*

Algebraic Complete Solution for Joint Source and Sensor Localization Using Time of Flight Measurements. *Le, T.*, +, *TSP 2020 1853-1869*

Bayesian Cooperative Localization Using Received Signal Strength With Unknown Path Loss Exponent: Message Passing Approaches. *Jin, D.*, +, *TSP 2020 1120-1135*

Compressive Sensing Using Iterative Hard Thresholding With Low Precision Data Representation: Theory and Applications. *Gurel, N.M.*, +, *TSP 2020 4268-4282*

Convolutional Dictionary Learning With Grid Refinement. *Song, A.H.*, +, *TSP 2020 2558-2573*

Cooperative Activity Detection: Sourced and Unsourced Massive Random Access Paradigms. *Shao, X.*, +, *TSP 2020 6578-6593*

Distributed Linear Estimation Via a Roaming Token. *Balthazar, L.*, +, *TSP 2020 780-792*

Efficient Attributed Scatter Center Extraction Based on Image-Domain Sparse Representation. *Yang, D.*, +, *TSP 2020 4368-4381*

Efficient Estimation of Graph Signals With Adaptive Sampling. *Ahmadi, M.J.*, +, *TSP 2020 3808-3823*

Efficient QP-ADMM Decoder for Binary LDPC Codes and Its Performance Analysis. *Bai, J.*, +, *TSP 2020 503-518*

Eigenspace Solution for AOA Localization in Modified Polar Representation. *Sun, Y.*, +, *TSP 2020 2256-2271*

Estimation of Sinusoidal Frequency-Modulated Signal Parameters by Two Branches and Two Stages. *Bai, G.*, +, *TSP 2020 4959-4970*

Extended Object Tracking Using Random Matrix With Skewness. *Zhang, L.*, +, *TSP 2020 5107-5121*

Fast Optimization With Zeroth-Order Feedback in Distributed, Multi-User MIMO Systems. *Bilenne, O.*, +, *TSP 2020 6085-6100*

Feature Graph Learning for 3D Point Cloud Denoising. *Hu, W.*, +, *TSP 2020 2841-2856*

Graph-Based Learning Under Perturbations via Total Least-Squares. *Ceci, E.*, +, *TSP 2020 2870-2882*

Greedy Algorithms for Sparse and Positive Signal Recovery Based on Bit-Wise MAP Detection. *Chae, J.*, +, *TSP 2020 4017-4029*

Gridless Parameter Estimation for One-Bit MIMO Radar With Time-Varying Thresholds. *Xi, F.*, +, *TSP 2020 1048-1063*

Hybrid Inexact BCD for Coupled Structured Matrix Factorization in Hyperspectral Super-Resolution. *Wu, R.*, +, *TSP 2020 1728-1743*

Intelligent Reflecting Surface Aided Multigroup Multicast MISO Communication Systems. *Zhou, G.*, +, *TSP 2020 3236-3251*

Joint EigenValue Decomposition Algorithms Based on First-Order Taylor Expansion. *Andre, R.*, +, *TSP 2020 1716-1727*

Learning Proximal Operator Methods for Nonconvex Sparse Recovery with Theoretical Guarantee. *Yang, C.*, +, *TSP 2020 5244-5259*

Low-Complexity Methods for Estimation After Parameter Selection. *Harel, N.*, +, *TSP 2020 1152-1167*

MIMO Radar Waveform Design in the Presence of Multiple Targets and Practical Constraints. *Yu, X.*, +, *TSP 2020 1974-1989*

Model-Driven Deep Learning for MIMO Detection. *He, H.*, +, *TSP 2020 1702-1715*

Multipath Suppression for Continuous Wave Radar via Slepian Sequences. *Day, B.P.*, +, *TSP 2020 548-557*

New Viewpoint and Algorithms for Water-Filling Solutions in Wireless Communications. *Xing, C.*, +, *TSP 2020 1618-1634*

On the Design of Multi-Spectrally Constrained Constant Modulus Radar Signals. *Aubry, A.*, +, *TSP 2020 2231-2243*

Parametric Sparse Bayesian Dictionary Learning for Multiple Sources Localization With Propagation Parameters Uncertainty. *You, K.*, +, *TSP 2020 4194-4209*

Penalty Dual Decomposition Method for Nonsmooth Nonconvex Optimization—Part I: Algorithms and Convergence Analysis. *Shi, Q.*, +, *TSP 2020 4108-4122*

Perturbed Amplitude Flow for Phase Retrieval. *Gao, B.*, +, *TSP 2020 5427-5440*

Phase-Only Robust Minimum Dispersion Beamforming. *Jiang, X.*, +, *TSP 2020 5664-5679*

Polyphase Waveform Design for MIMO Radar Space Time Adaptive Processing. *Tang, B.*, +, *TSP 2020 2143-2154*

Power Allocation Schemes for Uplink Massive MIMO System in the Presence of Imperfect CSI. *Yu, X.*, +, *TSP 2020 5968-5982*

Quadratic Optimization for Unimodular Sequence Design via an ADPM Framework. *Yu, X.*, +, *TSP 2020 3619-3634*



Resource Scheduling for Distributed Multi-Target Tracking in Netted Colocated MIMO Radar Systems. *Yi, W.*, +, *TSP 2020 1602-1617*

Riemannian Geometric Optimization Methods for Joint Design of Transmit Sequence and Receive Filter on MIMO Radar. *Li, J.*, +, *TSP 2020 5602-5616*

Robust Adaptive Beamforming Based on Linearly Modified Atomic-Norm Minimization With Target Contaminated Data. *Zhang, X.*, +, *TSP 2020 5138-5151*

Robust Two-Stage Reduced-Dimension Sparsity-Aware STAP for Airborne Radar With Coprime Arrays. *Wang, X.*, +, *TSP 2020 81-96*

Signal-Dependent Performance Analysis of Orthogonal Matching Pursuit for Exact Sparse Recovery. *Wen, J.*, +, *TSP 2020 5031-5046*

Stability Analysis of  $\ell_{0,\infty}$ -Norm Based Convolutional Sparse Coding Using Stripe Coherence. *Fu, Y.*, +, *TSP 2020 5810-5823*

Subspace-Based Near-Field Source Localization in Unknown Spatially Non-uniform Noise Environment. *Zuo, W.*, +, *TSP 2020 4713-4726*

Variance State Propagation for Structured Sparse Bayesian Learning. *Zhang, M.*, +, *TSP 2020 2386-2400*

Variants of Partial Update Augmented CLMS Algorithm and Their Performance Analysis. *Vahidpour, V.*, +, *TSP 2020 3146-3157*

Variational Bayesian Estimation of Statistical Properties of Composite Gamma Log-Normal Distribution. *Turlapaty, A.C.*, *TSP 2020 6481-6492*

Walkman: A Communication-Efficient Random-Walk Algorithm for Decentralized Optimization. *Mao, X.*, +, *TSP 2020 2513-2528*

## J

### Jamming

Denial-of-Service Attacks on Communication Systems: Detectability and Jammer Knowledge. *Boche, H.*, +, *TSP 2020 3754-3768*

Maximum Likelihood Detection in the Presence of Non-Gaussian Jamming. *Almahorg, K.A.*, +, *TSP 2020 5722-5735*

### Jitter

Fractional Spectrum Analysis for Nonuniform Sampling in the Presence of Clock Jitter and Timing Offset. *Ma, J.*, +, *TSP 2020 4148-4162*

## K

### Kalman filters

Diffusion Maps Kalman Filter for a Class of Systems With Gradient Flows. *Shnitzer, T.*, +, *TSP 2020 2739-2753*

Distributed Optimal Linear Fusion Predictors and Filters for Systems With Random Parameter Matrices and Correlated Noises. *Sun, S.*, *TSP 2020 1064-1074*

Estimation of Dynamically Varying Support of Sparse Signals via Sequential Monte-Carlo Method. *Yoo, J.H.*, +, *TSP 2020 4135-4147*

Multiple Bayesian Filtering as Message Passing. *Vitetta, G.M.*, +, *TSP 2020 1002-1020*

## L

### Laplace equations

Feature Graph Learning for 3D Point Cloud Denoising. *Hu, W.*, +, *TSP 2020 2841-2856*

### Laplace transforms

The Vector Poisson Channel: On the Linearity of the Conditional Mean Estimator. *Dytso, A.*, +, *TSP 2020 5894-5903*

### Large-scale systems

Variance-Reduced Decentralized Stochastic Optimization With Accelerated Convergence. *Xin, R.*, +, *TSP 2020 6255-6271*

### Lattice theory

Lattice Reduction Over Imaginary Quadratic Fields. *Lyu, S.*, +, *TSP 2020 6380-6393*

### Learning (artificial intelligence)

A Globally Optimal Energy-Efficient Power Control Framework and Its Efficient Implementation in Wireless Interference Networks. *Matthiesen, B.*, +, *TSP 2020 3887-3902*

A Low-Rank Tensor Dictionary Learning Method for Hyperspectral Image Denoising. *Gong, X.*, +, *TSP 2020 1168-1180*

A Provably Communication-Efficient Asynchronous Distributed Inference Method for Convex and Nonconvex Problems. *Ren, J.*, +, *TSP 2020 3325-3340*

Accelerated Structure-Aware Reinforcement Learning for Delay-Sensitive Energy Harvesting Wireless Sensors. *Sharma, N.*, +, *TSP 2020 1409-1424*

Action-Manipulation Attacks Against Stochastic Bandits: Attacks and Defense. *Liu, G.*, +, *TSP 2020 5152-5165*

Adaptation and Learning Over Networks Under Subspace Constraints—Part I: Stability Analysis. *Nassif, R.*, +, *TSP 2020 1346-1360*

Adaptation and Learning Over Networks Under Subspace Constraints—Part II: Performance Analysis. *Nassif, R.*, +, *TSP 2020 2948-2962*

Analyzing Upper Bounds on Mean Absolute Errors for Deep Neural Network-Based Vector-to-Vector Regression. *Qi, J.*, +, *TSP 2020 3411-3422*

Bayesian Nonnegative Matrix Factorization With Dirichlet Process Mixtures. *Li, C.*, +, *TSP 2020 3860-3870*

Cost-Aware Cascading Bandits. *Gan, C.*, +, *TSP 2020 3692-3706*

Deep Neural Networks With Trainable Activations and Controlled Lipschitz Constant. *Aziznejad, S.*, +, *TSP 2020 4688-4699*

Deeply-Sparse Signal rePresentations (DS<sup>2</sup>P). *Ba, D.*, *TSP 2020 4727-4742*

Defect Detection and Classification by Training a Generic Convolutional Neural Network Encoder. *Dong, X.*, +, *TSP 2020 6055-6069*

Dictionary Learning With BLOTLESS Update. *Yu, Q.*, +, *TSP 2020 1635-1645*

Diffusion Maps Kalman Filter for a Class of Systems With Gradient Flows. *Shnitzer, T.*, +, *TSP 2020 2739-2753*

Diffusion Normalized Least Mean M-estimate Algorithms: Design and Performance Analysis. *Yu, Y.*, +, *TSP 2020 2199-2214*

Distributed Approximate Newton's Method Robust to Byzantine Attackers. *Cao, X.*, +, *TSP 2020 6011-6025*

Distributed Constrained Online Learning. *Paternain, S.*, +, *TSP 2020 3486-3499*

Efficient Generalized Boundary Detection Using a Sliding Information Distance. *Field, R.*, +, *TSP 2020 6394-6401*

Fast Adaptive Gradient RBF Networks For Online Learning of Nonstationary Time Series. *Liu, T.*, +, *TSP 2020 2015-2030*

Fast Optimization With Zeroth-Order Feedback in Distributed, Multi-User MIMO Systems. *Bilenne, O.*, +, *TSP 2020 6085-6100*

Feature Graph Learning for 3D Point Cloud Denoising. *Hu, W.*, +, *TSP 2020 2841-2856*

Federated Variance-Reduced Stochastic Gradient Descent With Robustness to Byzantine Attacks. *Wu, Z.*, +, *TSP 2020 4583-4596*

Fixed-Point Minimum Error Entropy With Fiducial Points. *Xie, Y.*, +, *TSP 2020 3824-3833*

Gated Graph Recurrent Neural Networks. *Ruiz, L.*, +, *TSP 2020 6303-6318*

Gaussian Process Reinforcement Learning for Fast Opportunistic Spectrum Access. *Yan, Z.*, +, *TSP 2020 2613-2628*

Graph Signal Processing in the Presence of Topology Uncertainties. *Ceci, E.*, +, *TSP 2020 1558-1573*

Graph-Adaptive Semi-Supervised Tracking of Dynamic Processes Over Switching Network Modes. *Lu, Q.*, +, *TSP 2020 2586-2597*

Graph-Based Learning Under Perturbations via Total Least-Squares. *Ceci, E.*, +, *TSP 2020 2870-2882*

Guaranteed Recovery of One-Hidden-Layer Neural Networks via Cross Entropy. *Fu, H.*, +, *TSP 2020 3225-3235*

High-Dimensional Stochastic Gradient Quantization for Communication-Efficient Edge Learning. *Du, Y.*, +, *TSP 2020 2128-2142*

Identifying Cognitive Radars - Inverse Reinforcement Learning Using Revealed Preferences. *Krishnamurthy, V.*, +, *TSP 2020 4529-4542*

Improved Most Likely Heteroscedastic Gaussian Process Regression via Bayesian Residual Moment Estimator. *Zhang, Q.*, +, *TSP 2020 3450-3460*

Learned Conjugate Gradient Descent Network for Massive MIMO Detection. *Wei, Y.*, +, *TSP 2020 6336-6349*

Learning Deep Analysis Dictionaries for Image Super-Resolution. *Huang, J.*, +, *TSP 2020 6633-6648*

Learning Latent Features With Pairwise Penalties in Low-Rank Matrix Completion. *Ji, K.*, +, *TSP 2020 4210-4225*

Learning Mixtures of Separable Dictionaries for Tensor Data: Analysis and Algorithms. *Ghassemi, M.*, +, *TSP 2020 33-48*

Learning Nonnegative Factors From Tensor Data: Probabilistic Modeling and Inference Algorithm. *Cheng, L.*, +, *TSP 2020 1792-1806*

- Learning Proximal Operator Methods for Nonconvex Sparse Recovery with Theoretical Guarantee. *Yang, C.*, +, *TSP 2020 5244-5259*
- Learning to Bound the Multi-Class Bayes Error. *Sekeh, S.Y.*, +, *TSP 2020 3793-3807*
- Linear Multiple Low-Rank Kernel Based Stationary Gaussian Processes Regression for Time Series. *Yin, F.*, +, *TSP 2020 5260-5275*
- Low-Complexity On-Demand Reconstruction for Compressively Sensed Problematic Signals. *Chou, C.*, +, *TSP 2020 4094-4107*
- Machine Learning at the Wireless Edge: Distributed Stochastic Gradient Descent Over-the-Air. *Mohammadi Amiri, M.*, +, *TSP 2020 2155-2169*
- Model-Based Deep Learning for One-Bit Compressive Sensing. *Khobahi, S.*, +, *TSP 2020 5292-5307*
- Model-Free Learning of Optimal Ergodic Policies in Wireless Systems. *Kalogerias, D.S.*, +, *TSP 2020 6272-6286*
- Modeling of Spatio-Temporal Hawkes Processes With Randomized Kernels. *Ilhan, F.*, +, *TSP 2020 4946-4958*
- Multi-Class Random Matrix Filtering for Adaptive Learning. *Braca, P.*, +, *TSP 2020 359-373*
- Multilabel Classification With Multivariate Time Series Predictors. *Che, Y.*, +, *TSP 2020 5696-5705*
- Network Dissensus via Distributed ADMM. *Kumar, C.*, +, *TSP 2020 2287-2301*
- Non-Bayesian Social Learning With Uncertain Models. *Hare, J.Z.*, +, *TSP 2020 4178-4193*
- Nonlinear Filtering With Variable Bandwidth Exponential Kernels. *Taseska, M.*, +, *TSP 2020 314-326*
- Nonlinear Multiview Analysis: Identifiability and Neural Network-Assisted Implementation. *Lyu, Q.*, +, *TSP 2020 2697-2712*
- On Analog Gradient Descent Learning Over Multiple Access Fading Channels. *Sery, T.*, +, *TSP 2020 2897-2911*
- On Maintaining Linear Convergence of Distributed Learning and Optimization Under Limited Communication. *Magnusson, S.*, +, *TSP 2020 6101-6116*
- On the Adversarial Robustness of Subspace Learning. *Li, F.*, +, *TSP 2020 1470-1483*
- On the Convergence of a Bayesian Algorithm for Joint Dictionary Learning and Sparse Recovery. *Joseph, G.*, +, *TSP 2020 343-358*
- Online Proximal Learning Over Jointly Sparse Multitask Networks With  $\ell_{\infty,1}$  Regularization. *Jin, D.*, +, *TSP 2020 6319-6335*
- Online Trajectory and Radio Resource Optimization of Cache-Enabled UAV Wireless Networks With Content and Energy Recharging. *Chai, S.*, +, *TSP 2020 1286-1299*
- Optimal Wireless Resource Allocation With Random Edge Graph Neural Networks. *Eisen, M.*, +, *TSP 2020 2977-2991*
- Privacy-Preserving Distributed Machine Learning via Local Randomization and ADMM Perturbation. *Wang, X.*, +, *TSP 2020 4226-4241*
- Privacy-Preserving Incremental ADMM for Decentralized Consensus Optimization. *Ye, Y.*, +, *TSP 2020 5842-5854*
- Risk Convergence of Centered Kernel Ridge Regression With Large Dimensional Data. *Elkhalil, K.*, +, *TSP 2020 1574-1588*
- Robust Cell-Load Learning With a Small Sample Set. *Avan, D.A.*, +, *TSP 2020 270-283*
- Robust Semiparametric Efficient Estimators in Complex Elliptically Symmetric Distributions. *Fortunati, S.*, +, *TSP 2020 5003-5015*
- Sparse Bayesian Learning With Dynamic Filtering for Inference of Time-Varying Sparse Signals. *O'Shaughnessy, M.R.*, +, *TSP 2020 388-403*
- Sparse Multiresolution Representations With Adaptive Kernels. *Peifer, M.*, +, *TSP 2020 2031-2044*
- Sparse Robust Learning From Flipped Bits. *Liu, Z.*, +, *TSP 2020 4407-4421*
- SPOQ $\ell_p$ -Over- $\ell_q$  Regularization for Sparse Signal Recovery Applied to Mass Spectrometry. *Cherni, A.*, +, *TSP 2020 6070-6084*
- Subsampling Generative Adversarial Networks: Density Ratio Estimation in Feature Space With Softplus Loss. *Ding, X.*, +, *TSP 2020 1910-1922*
- Subspace Learning and Feature Selection via Orthogonal Mapping. *Mandanas, F.D.*, +, *TSP 2020 1034-1047*
- Tensor Graph Convolutional Networks for Multi-Relational and Robust Learning. *Ioannidis, V.N.*, +, *TSP 2020 6535-6546*
- Tractable Inference and Observation Likelihood Evaluation in Latent Structure Influence Models. *Karimi, S.*, +, *TSP 2020 5736-5745*
- Training Data Assisted Anomaly Detection of Multi-Pixel Targets In Hyperspectral Imagery. *Liu, J.*, +, *TSP 2020 3022-3032*
- Tune Smarter Not Harder: A Principled Approach to Tuning Learning Rates for Shallow Nets. *Tholeti, T.*, +, *TSP 2020 5063-5078*
- Un-Rectifying Non-Linear Networks for Signal Representation. *Hwang, W.*, +, *TSP 2020 196-210*
- Unraveling the Veil of Subspace RIP Through Near-Isometry on Subspaces. *Xu, X.*, +, *TSP 2020 3117-3131*
- Variance State Propagation for Structured Sparse Bayesian Learning. *Zhang, M.*, +, *TSP 2020 2386-2400*
- Variance-Reduced Stochastic Learning Under Random Reshuffling. *Ying, B.*, +, *TSP 2020 1390-1408*
- Variational Temporal Deep Generative Model for Radar HRRP Target Recognition. *Guo, D.*, +, *TSP 2020 5795-5809*
- Least mean squares methods**
- A Spatial-Temporal Subspace-Based Compressive Channel Estimation Technique in Unknown Interference MIMO Channels. *Takano, Y.*, +, *TSP 2020 300-313*
- An Exact Expectation Model for the LMS Tracking Abilities. *Silva, T.T.P.*, +, *TSP 2020 5882-5893*
- Bayes-Optimal MMSE Detector for Massive MIMO Relaying With Low-Precision ADCs/DACs. *Yang, X.*, +, *TSP 2020 3341-3357*
- Constructions of Cross Z-Complementary Pairs With New Lengths. *Adhikary, A.R.*, +, *TSP 2020 4700-4712*
- Cramér-Rao Bound for DOA Estimators Under the Partial Relaxation Framework: Derivation and Comparison. *Trinh-Hoang, M.*, +, *TSP 2020 3194-3208*
- Diffusion Average-Estimate Bias-Compensated LMS Algorithms Over Adaptive Networks Using Noisy Measurements. *Zhang, S.*, +, *TSP 2020 4643-4655*
- Diffusion Normalized Least Mean M-estimate Algorithms: Design and Performance Analysis. *Yu, Y.*, +, *TSP 2020 2199-2214*
- Double-Talk Robust Multichannel Acoustic Echo Cancellation Using Least-Squares MIMO Adaptive Filtering: Transversal, Array, and Lattice Forms. *Malik, S.*, +, *TSP 2020 4887-4902*
- Efficient Estimation of Graph Signals With Adaptive Sampling. *Ahmadi, M.J.*, +, *TSP 2020 3808-3823*
- Energy- and Area-Efficient Recursive-Conjugate-Gradient-Based MMSE Detector for Massive MIMO Systems. *Liu, L.*, +, *TSP 2020 573-588*
- Fixed-Point Minimum Error Entropy With Fiducial Points. *Xie, Y.*, +, *TSP 2020 3824-3833*
- ImdLMS: An Imputation Based LMS Algorithm for Linear System Identification With Missing Input Data. *Mukhopadhyay, S.*, +, *TSP 2020 2370-2385*
- Localization in 2D PBR With Multiple Transmitters of Opportunity: A Constrained Least Squares Approach. *Aubry, A.*, +, *TSP 2020 634-646*
- Lossless Dimension Reduction for Integer Least Squares With Application to Sphere Decoding. *Neinavaie, M.*, +, *TSP 2020 6547-6561*
- Low-Complexity Decorrelation NLMS Algorithms: Performance Analysis and AEC Application. *Zhang, S.*, +, *TSP 2020 6621-6632*
- Majorization-Minimization Aided Hybrid Transceivers for MIMO Interference Channels. *Gong, S.*, +, *TSP 2020 4903-4918*
- Multi-Group Multicast Beamforming: Optimal Structure and Efficient Algorithms. *Dong, M.*, +, *TSP 2020 3738-3753*
- Online Proximal Learning Over Jointly Sparse Multitask Networks With  $\ell_{\infty,1}$  Regularization. *Jin, D.*, +, *TSP 2020 6319-6335*
- Performance Analysis of Deficient Length Quaternion Least Mean Square Adaptive Filters. *Xiang, M.*, +, *TSP 2020 65-80*
- Sherman-Morrison Formula Aided Adaptive Channel Estimation for Underwater Visible Light Communication With Fractionally-Sampled OFDM. *Chen, J.*, +, *TSP 2020 2784-2798*
- Soft Symbol Decoding in Sweep-Spread-Carrier Underwater Acoustic Communications: A Novel Variational Bayesian Algorithm and Its Analysis. *Arunkumar, K.P.*, +, *TSP 2020 2435-2448*
- Stabilization of a Modified LMS Algorithm for Canceling Nonlinear Memory Effects. *Xiao, Y.*, *TSP 2020 3439-3449*
- Stochastic Analysis of the Recursive Least Squares Algorithm for Cyclostationary Colored Inputs. *Eweda, E.*, +, *TSP 2020 676-686*

The Vector Poisson Channel: On the Linearity of the Conditional Mean Estimator. *Dytso, A.*, +, *TSP 2020 5894-5903*

Variants of Partial Update Augmented CLMS Algorithm and Their Performance Analysis. *Vahidpour, V.*, +, *TSP 2020 3146-3157*

Widely Linear Quaternion-Valued Least-Mean Kurtosis Algorithm. *Menguc, E.C.*, +, *TSP 2020 5914-5922*

#### Least squares approximations

A Second-Order Method for Fitting the Canonical Polyadic Decomposition With Non-Least-Squares Cost. *Vandecappelle, M.*, +, *TSP 2020 4454-4465*

Alternating Group Lasso for Block-Term Tensor Decomposition and Application to ECG Source Separation. *Goulart, J.H.d.M.*, +, *TSP 2020 2682-2696*

An Algebraic Closed-Form Solution for Bearings-Only Maneuvering Target Motion Analysis From a Nonmaneuvering Platform. *Badriasl, L.*, +, *TSP 2020 4672-4687*

An Asymptotically Efficient Weighted Least Squares Estimator for Co-Array-Based DoA Estimation. *Sedighi, S.*, +, *TSP 2020 589-604*

Asymptotically Optimal Blind Calibration of Uniform Linear Sensor Arrays for Narrowband Gaussian Signals. *Weiss, A.*, +, *TSP 2020 5322-5333*

Efficient Closed-Form Solution for Moving Target Localization in MIMO Radars With Minimum Number of Antennas. *Norozi, A.*, +, *TSP 2020 2545-2557*

Estimating Network Processes via Blind Identification of Multiple Graph Filters. *Zhu, Y.*, +, *TSP 2020 3049-3063*

Fast Adaptive Gradient RBF Networks For Online Learning of Nonstationary Time Series. *Liu, T.*, +, *TSP 2020 2015-2030*

Frequency-Domain Prony Method for Autoregressive Model Identification and Sinusoidal Parameter Estimation. *Ando, S.*, *TSP 2020 3461-3470*

Graph-Based Learning Under Perturbations via Total Least-Squares. *Ceci, E.*, +, *TSP 2020 2870-2882*

Multi-Class Random Matrix Filtering for Adaptive Learning. *Braca, P.*, +, *TSP 2020 359-373*

One-Step Prediction for Discrete Time-Varying Nonlinear Systems With Unknown Inputs and Correlated Noises. *Abolhasani, M.*, +, *TSP 2020 808-817*

Parametric Signal Estimation Using the Cumulative Distribution Transform. *Rubaiyat, A.H.M.*, +, *TSP 2020 3312-3324*

Quaternion Non-Negative Matrix Factorization: Definition, Uniqueness, and Algorithm. *Flamant, J.*, +, *TSP 2020 1870-1883*

Robust Multichannel Linear Prediction for Online Speech Dereverberation Using Weighted Householder Least Squares Lattice Adaptive Filter. *Wung, J.*, +, *TSP 2020 3559-3574*

Sparse Robust Learning From Flipped Bits. *Liu, Z.*, +, *TSP 2020 4407-4421*

SPOQ $\ell_p$ -Over- $\ell_q$  Regularization for Sparse Signal Recovery Applied to Mass Spectrometry. *Cherni, A.*, +, *TSP 2020 6070-6084*

The Extended Manifold for Antenna Arrays. *Friedlander, B.*, *TSP 2020 493-502*

Walkman: A Communication-Efficient Random-Walk Algorithm for Decentralized Optimization. *Mao, X.*, +, *TSP 2020 2513-2528*

#### Light propagation

Sherman-Morrison Formula Aided Adaptive Channel Estimation for Underwater Visible Light Communication With Fractionally-Sampled OFDM. *Chen, J.*, +, *TSP 2020 2784-2798*

#### Linear discriminant analysis

Subspace Learning and Feature Selection via Orthogonal Mapping. *Man-danas, F.D.*, +, *TSP 2020 1034-1047*

#### Linear matrix inequalities

Erratum to "Security-Enhanced Filter Design for Stochastic Systems Under Malicious Attack via Smoothed Signal Model and Multiobjective Estimation Method" [20 4971-4986]. *Chen, B.*, +, *TSP 2020 5923*

Quadratic Matrix Inequality Approach to Robust Adaptive Beamforming for General-Rank Signal Model. *Huang, Y.*, +, *TSP 2020 2244-2255*

Security-Enhanced Filter Design for Stochastic Systems under Malicious Attack via Smoothed Signal Model and Multiobjective Estimation Method. *Chen, B.*, +, *TSP 2020 4971-4986*

#### Linear programming

A Metric on the Space of Finite Sets of Trajectories for Evaluation of Multi-Target Tracking Algorithms. *Garcia-Fernandez, A.F.*, +, *TSP 2020 3917-3928*

#### Linear systems

A Note on BIBO Stability. *Unser, M.*, *TSP 2020 5904-5913*

Data-Driven Structured Noise Filtering via Common Dynamics Estimation. *Markovsky, I.*, +, *TSP 2020 3064-3073*

Distributed Optimal Linear Fusion Predictors and Filters for Systems With Random Parameter Matrices and Correlated Noises. *Sun, S.*, *TSP 2020 1064-1074*

ImdLMS: An Imputation Based LMS Algorithm for Linear System Identification With Missing Input Data. *Mukhopadhyay, S.*, +, *TSP 2020 2370-2385*

Optimal Sequential Estimation for Asynchronous Sampling Discrete-Time Systems. *Lin, H.*, +, *TSP 2020 6117-6127*

Turing Meets Shannon: Computable Sampling Type Reconstruction With Error Control. *Boche, H.*, +, *TSP 2020 6350-6365*

#### Log normal distribution

Variational Bayesian Estimation of Statistical Properties of Composite Gamma Log-Normal Distribution. *Turlapaty, A.C.*, *TSP 2020 6481-6492*

#### Low-pass filters

A New Class of Explicit Interpolatory Splines and Related Measurement Estimation. *Chen, J.*, +, *TSP 2020 2799-2813*

Blind Community Detection From Low-Rank Excitations of a Graph Filter. *Wai, H.*, +, *TSP 2020 436-451*

Large-Amplitude Dithering Mitigates Glitches in Digital-to-Analogue Converters. *Eielsen, A.A.*, +, *TSP 2020 1950-1963*

#### Low-power electronics

Low-Complexity On-Demand Reconstruction for Compressively Sensed Problematic Signals. *Chou, C.*, +, *TSP 2020 4094-4107*

#### Lyapunov matrix equations

Two-Dimensional Modular Chaotification System for Improving Chaos Complexity. *Hua, Z.*, +, *TSP 2020 1937-1949*

#### Lyapunov methods

A Generalized Accelerated Composite Gradient Method: Uniting Nesterov's Fast Gradient Method and FISTA. *Florea, M.I.*, +, *TSP 2020 3033-3048*

Unified and Self-Stabilized Parallel Algorithm for Multiple Generalized Eigenpairs Extraction. *Kong, X.*, +, *TSP 2020 3644-3659*

## M

#### Machine bearings

A Closed-Form Estimator for Bearings-Only Fusion of Heterogeneous Passive Sensors. *Arulampalam, S.*, +, *TSP 2020 6681-6695*

#### Markov processes

Accelerated Structure-Aware Reinforcement Learning for Delay-Sensitive Energy Harvesting Wireless Sensors. *Sharma, N.*, +, *TSP 2020 1409-1424*

An Exact Expectation Model for the LMS Tracking Abilities. *Silva, T.T.P.*, +, *TSP 2020 5882-5893*

Cloud-Assisted Cooperative Localization for Vehicle Platoons: A Turbo Approach. *Liu, A.*, +, *TSP 2020 605-620*

Distributed Linear Estimation Via a Roaming Token. *Balthazar, L.*, +, *TSP 2020 780-792*

Dynamic Sensor Subset Selection for Centralized Tracking of an IID Process. *Chattopadhyay, A.*, +, *TSP 2020 3209-3224*

Estimation of Dynamically Varying Support of Sparse Signals via Sequential Monte-Carlo Method. *Yoo, J.H.*, +, *TSP 2020 4135-4147*

Gaussian Conditionally Markov Sequences: Dynamic Models and Representations of Reciprocal and Other Classes. *Rezaie, R.*, +, *TSP 2020 155-169*

Gaussian Sensor Reinforcement Learning for Fast Opportunistic Spectrum Access. *Yan, Z.*, +, *TSP 2020 2613-2628*

Multi-Class Random Matrix Filtering for Adaptive Learning. *Braca, P.*, +, *TSP 2020 359-373*

Online Trajectory and Radio Resource Optimization of Cache-Enabled UAV Wireless Networks With Content and Energy Recharging. *Chai, S.*, +, *TSP 2020 1286-1299*

Student's t-VAR Modeling With Missing Data Via Stochastic EM and Gibbs Sampling. *Zhou, R.*, +, *TSP 2020 6198-6211*

Variance State Propagation for Structured Sparse Bayesian Learning. *Zhang, M.*, +, *TSP 2020 2386-2400*

Variational Temporal Deep Generative Model for Radar HRRP Target Recognition. *Guo, D.*, +, *TSP 2020 5795-5809*

**Mars**

Localized Analysis of Signals on the Sphere Over Polygon Regions. *Aslam, A.*, +, *TSP 2020 4568-4582*

**Matched filters**

Multi-Pattern Recognition Through Maximization of Signal-to-Peak-Interference Ratio With Application to Neural Spike Sorting. *Wouters, J.*, +, *TSP 2020 6240-6254*

Multipath Suppression for Continuous Wave Radar via Slepian Sequences. *Day, B.P.*, +, *TSP 2020 548-557*

**Matching pursuit algorithms**

Distributed Compressive Sensing: Performance Analysis With Diverse Signal Ensembles. *Hsieh, S.*, +, *TSP 2020 3500-3514*

**Mathematical programming**

A New Atomic Norm for DOA Estimation With Gain-Phase Errors. *Chen, P.*, +, *TSP 2020 4293-4306*

Binary Sequence Set Design for Interferer Rejection in Multi-Branch Modulation. *Mo, D.*, +, *TSP 2020 3769-3778*

Fast Optimization With Zeroth-Order Feedback in Distributed, Multi-User MIMO Systems. *Bilenne, O.*, +, *TSP 2020 6085-6100*

Kinetic Euclidean Distance Matrices. *Tabaghi, P.*, +, *TSP 2020 452-465*

Quadratic Semidefinite Programming for Waveform-Constrained Joint Filter-Signal Design in STAP. *O'Rourke, S.M.*, +, *TSP 2020 1744-1759*

Robust Adaptive Beamforming Based on Linearly Modified Atomic-Norm Minimization With Target Contaminated Data. *Zhang, X.*, +, *TSP 2020 5138-5151*

**Mathematics computing**

Adaptation and Learning Over Networks Under Subspace Constraints—Part I: Stability Analysis. *Nassif, R.*, +, *TSP 2020 1346-1360*

**Matrix algebra**

A Closed-Form Prediction Update for Extended Target Tracking Using Random Matrices. *Bartlett, N.J.*, +, *TSP 2020 2404-2418*

A Deterministic Theory for Exact Non-Convex Phase Retrieval. *Yonel, B.*, +, *TSP 2020 4612-4626*

A Dimension Reduction-Based Joint Activity Detection and Channel Estimation Algorithm for Massive Access. *Shao, X.*, +, *TSP 2020 420-435*

A Simple Derivation of AMP and its State Evolution via First-Order Cancellation. *Schniter, P.*, *TSP 2020 4283-4292*

Algebraic Complete Solution for Joint Source and Sensor Localization Using Time of Flight Measurements. *Le, T.*, +, *TSP 2020 1853-1869*

Algorithms for Change Detection With Sparse Signals. *Jain, A.*, +, *TSP 2020 1331-1345*

AOA Pseudolinear Target Motion Analysis in the Presence of Sensor Location Errors. *Pang, F.*, +, *TSP 2020 3385-3399*

Components Separation Algorithm for Localization and Classification of Mixed Near-Field and Far-Field Sources in Multipath Propagation. *Molaei, A.M.*, +, *TSP 2020 404-419*

Compressed Sensing Using Binary Matrices of Nearly Optimal Dimensions. *Lofti, M.*, +, *TSP 2020 3008-3021*

Compressive Sensing-Based Adaptive Active User Detection and Channel Estimation: Massive Access Meets Massive MIMO. *Ke, M.*, +, *TSP 2020 764-779*

Configuration Optimization and Channel Estimation in Hybrid Beamforming mmWave Systems With Channel Support Side Information. *Lian, L.*, +, *TSP 2020 6026-6039*

Constructions of Cross Z-Complementary Pairs With New Lengths. *Adhikary, A.R.*, +, *TSP 2020 4700-4712*

Cramér–Rao Bounds for Complex-Valued Independent Component Extraction: Determined and Piecewise Determined Mixing Models. *Kautsky, V.*, +, *TSP 2020 5230-5243*

Decentralized Accelerated Gradient Methods With Increasing Penalty Parameters. *Li, H.*, +, *TSP 2020 4855-4870*

Decentralized Expectation Consistent Signal Recovery for Phase Retrieval. *Wang, C.*, +, *TSP 2020 1484-1499*

Deeply-Sparse Signal rePresentations (DS<sup>2</sup>P). *Ba, D.*, *TSP 2020 4727-4742*

Deterministic Completion of Rectangular Matrices Using Asymmetric Ramanujan Graphs: Exact and Stable Recovery. *Burnwal, S.P.*, +, *TSP 2020 3834-3848*

Directional Sparse Filtering for Blind Estimation of Under-Determined Complex-Valued Mixing Matrices. *Nguyen, A.H.T.*, +, *TSP 2020 1990-2003*

Distributed Nonlinear Estimation Over Unbalanced Directed Networks. *Meng, M.*, +, *TSP 2020 6212-6223*

Distributed Optimal Linear Fusion Predictors and Filters for Systems With Random Parameter Matrices and Correlated Noises. *Sun, S.*, *TSP 2020 1064-1074*

Estimating Network Processes via Blind Identification of Multiple Graph Filters. *Zhu, Y.*, +, *TSP 2020 3049-3063*

Exact and Robust Reconstructions of Integer Vectors Based on Multidimensional Chinese Remainder Theorem (MD-CRT). *Xiao, L.*, +, *TSP 2020 5349-5364*

Extended Object Tracking Using Random Matrix With Skewness. *Zhang, L.*, +, *TSP 2020 5107-5121*

Fast and Efficient Time-Reversal Imaging Using Space-Frequency Propagator Method. *Hu, B.*, +, *TSP 2020 2077-2086*

Fast Graph Sampling Set Selection Using Gershgorin Disc Alignment. *Bai, Y.*, +, *TSP 2020 2419-2434*

Fast Optimization With Zeroth-Order Feedback in Distributed, Multi-User MIMO Systems. *Bilenne, O.*, +, *TSP 2020 6085-6100*

Feature Graph Learning for 3D Point Cloud Denoising. *Hu, W.*, +, *TSP 2020 2841-2856*

Graph Fourier Transform: A Stable Approximation. *Domingos, J.*, +, *TSP 2020 4422-4437*

Graph Sampling for Matrix Completion Using Recurrent Gershgorin Disc Shift. *Wang, F.*, +, *TSP 2020 2814-2829*

Intelligent Reflecting Surface Aided Multigroup Multicast MISO Communication Systems. *Zhou, G.*, +, *TSP 2020 3236-3251*

Learning Nonnegative Factors From Tensor Data: Probabilistic Modeling and Inference Algorithm. *Cheng, L.*, +, *TSP 2020 1792-1806*

Localized Analysis of Signals on the Sphere Over Polygon Regions. *Aslam, A.*, +, *TSP 2020 4568-4582*

Lower Bound for RIP Constants and Concentration of Sum of Top Order Statistics. *Li, G.*, +, *TSP 2020 3169-3178*

Majorize–Minimize Adapted Metropolis–Hastings Algorithm. *Marnissi, Y.*, +, *TSP 2020 2356-2369*

Model-Based Deep Learning for One-Bit Compressive Sensing. *Khobahi, S.*, +, *TSP 2020 5292-5307*

Model-Based Robust Filtering and Experimental Design for Stochastic Differential Equation Systems. *Zhao, G.*, +, *TSP 2020 3849-3859*

Model-Driven Deep Learning for MIMO Detection. *He, H.*, +, *TSP 2020 1702-1715*

Modeling of Spatio-Temporal Hawkes Processes With Randomized Kernels. *Ilhan, F.*, +, *TSP 2020 4946-4958*

Multi-Channel Factor Analysis With Common and Unique Factors. *Ramirez, D.*, +, *TSP 2020 113-126*

Multi-Class Random Matrix Filtering for Adaptive Learning. *Braca, P.*, +, *TSP 2020 359-373*

Multiple Change Points Detection in Low Rank and Sparse High Dimensional Vector Autoregressive Models. *Bai, P.*, +, *TSP 2020 3074-3089*

Newton-Step-Based Hard Thresholding Algorithms for Sparse Signal Recovery. *Meng, N.*, +, *TSP 2020 6594-6606*

Nonlinear Filtering With Variable Bandwidth Exponential Kernels. *Taseska, M.*, +, *TSP 2020 314-326*

On the Resolution Probability of Conditional and Unconditional Maximum Likelihood DoA Estimation. *Mestre, X.*, +, *TSP 2020 4656-4671*

Online Data Dimensionality Reduction and Reconstruction Using Graph Filtering. *Schizas, I.D.*, *TSP 2020 3871-3886*

Orthogonal and Non-Orthogonal Signal Representations Using New Transformation Matrices Having NPM Structure. *Shah, S.B.*, +, *TSP 2020 1229-1242*

Quaternion Non-Negative Matrix Factorization: Definition, Uniqueness, and Algorithm. *Flamant, J.*, +, *TSP 2020 1870-1883*

Riemannian Geometric Optimization Methods for Joint Design of Transmit Sequence and Receive Filter on MIMO Radar. *Li, J.*, +, *TSP 2020 5602-5616*

Risk Convergence of Centered Kernel Ridge Regression With Large Dimensional Data. *Elkhalil, K.*, +, *TSP 2020 1574-1588*

Robust Adaptive Beamforming Based on Linearly Modified Atomic-Norm Minimization With Target Contaminated Data. *Zhang, X.*, +, *TSP 2020 5138-5151*

Robust and Computationally Efficient Digital IIR Filter Synthesis and Stability Analysis Under Finite Precision Implementations. *Ko, H.*, +, *TSP 2020 1807-1822*

Robust Transceiver Design for AF Asymmetric Two-Way MIMO Relaying. *Pradhan, H.*, +, *TSP 2020 5488-5503*

Safe Squeezing for Antisparsity Coding. *Elvira, C.*, +, *TSP 2020 3252-3265*  
Sensing Matrix Design and Sparse Recovery on the Sphere and the Rotation Group. *Bangun, A.*, +, *TSP 2020 1439-1454*

Shapes From Echoes: Uniqueness From Point-to-Plane Distance Matrices. *Krekovic, M.*, +, *TSP 2020 2480-2498*

Solving Complex Quadratic Systems With Full-Rank Random Matrices. *Huang, S.*, +, *TSP 2020 4782-4796*

SPOQ $\ell_p$ -Over- $\ell_q$  Regularization for Sparse Signal Recovery Applied to Mass Spectrometry. *Cherni, A.*, +, *TSP 2020 6070-6084*

Sub-Nyquist Spectrum Sensing of Sparse Wideband Signals Using Low-Density Measurement Matrices. *Vasavada, Y.*, +, *TSP 2020 3723-3737*

System Identification of High-Dimensional Linear Dynamical Systems With Serially Correlated Output Noise Components. *Lin, J.*, +, *TSP 2020 5573-5587*

The Extended Manifold for Antenna Arrays. *Friedlander, B.*, *TSP 2020 493-502*

Two Dimensional Efficient Multiplier-Less Structures of Möbius Function for Ramanujan Filter Banks. *Pei, S.*, +, *TSP 2020 5079-5091*

Two-Dimensional Z-Complementary Array Code Sets Based on Matrices of Generating Polynomials. *Das, S.*, +, *TSP 2020 5519-5532*

Un-Rectifying Non-Linear Networks for Signal Representation. *Hwang, W.*, +, *TSP 2020 196-210*

Unified and Self-Stabilized Parallel Algorithm for Multiple Generalized Eigenpairs Extraction. *Kong, X.*, +, *TSP 2020 3644-3659*

Uniform RIP Conditions for Recovery of Sparse Signals by  $\ell_p$  ( $0 < p \leq 1$ ) Minimization. *Wan, A.*, *TSP 2020 5379-5394*

#### Matrix decomposition

A Dictionary-Based Generalization of Robust PCA With Applications to Target Localization in Hyperspectral Imaging. *Rambhatla, S.*, +, *TSP 2020 1760-1775*

A Provably Correct and Robust Algorithm for Convolutional Nonnegative Matrix Factorization. *Degleris, A.*, +, *TSP 2020 2499-2512*

A Second-Order Method for Fitting the Canonical Polyadic Decomposition With Non-Least-Squares Cost. *Vandecappelle, M.*, +, *TSP 2020 4454-4465*

Bayesian Nonnegative Matrix Factorization With Dirichlet Process Mixtures. *Li, C.*, +, *TSP 2020 3860-3870*

Blind Audio Source Separation With Minimum-Volume Beta-Divergence NMF. *Leplat, V.*, +, *TSP 2020 3400-3410*

Block-Randomized Stochastic Proximal Gradient for Low-Rank Tensor Factorization. *Fu, X.*, +, *TSP 2020 2170-2185*

Efficient Low-Rank Approximation of Matrices Based on Randomized Pivoted Decomposition. *Kaloorazi, M.F.*, +, *TSP 2020 3575-3589*

Hybrid Inexact BCD for Coupled Structured Matrix Factorization in Hyperspectral Super-Resolution. *Wu, R.*, +, *TSP 2020 1728-1743*

Hybrid Transceivers Design for Large-Scale Antenna Arrays Using Majorization-Minimization Algorithms. *Arora, A.*, +, *TSP 2020 701-714*

Joint Eigenvalue Decomposition Algorithms Based on First-Order Taylor Expansion. *Andre, R.*, +, *TSP 2020 1716-1727*

Kinetic Euclidean Distance Matrices. *Tabaghi, P.*, +, *TSP 2020 452-465*

Learning Latent Features With Pairwise Penalties in Low-Rank Matrix Completion. *Ji, K.*, +, *TSP 2020 4210-4225*

Multi-Set Low-Rank Factorizations With Shared and Unshared Components. *Sorensen, M.*, +, *TSP 2020 5122-5137*

Penalty Dual Decomposition Method for Nonsmooth Nonconvex Optimization—Part II: Applications. *Shi, Q.*, +, *TSP 2020 4242-4257*

Quaternion Non-Negative Matrix Factorization: Definition, Uniqueness, and Algorithm. *Flamant, J.*, +, *TSP 2020 1870-1883*

Quaternion-Based Bilinear Factor Matrix Norm Minimization for Color Image inpainting. *Miao, J.*, +, *TSP 2020 5617-5631*

Scalable and Robust Community Detection With Randomized Sketching. *Rahmani, M.*, +, *TSP 2020 962-977*

#### Matrix multiplication

Variable Step-Size Widely Linear Complex-Valued Affine Projection Algorithm and Performance Analysis. *Shi, L.*, +, *TSP 2020 5940-5953*

#### Maximum likelihood decoding

Efficient QP-ADMM Decoder for Binary LDPC Codes and Its Performance Analysis. *Bai, J.*, +, *TSP 2020 503-518*

Lossless Dimension Reduction for Integer Least Squares With Application to Sphere Decoding. *Neinavaie, M.*, +, *TSP 2020 6547-6561*

#### Maximum likelihood detection

Maximum Likelihood Detection in the Presence of Non-Gaussian Jamming. *Almahorg, K.A.*, +, *TSP 2020 5722-5735*

Nearly Optimal Adaptive Sequential Tests for Object Detection. *Tartakovsky, A.G.*, +, *TSP 2020 3371-3384*

On the Performance of Splitting Receiver With Joint Coherent and Non-Coherent Processing. *Wang, Y.*, +, *TSP 2020 917-930*

#### Maximum likelihood estimation

A Closed-Form Estimator for Bearings-Only Fusion of Heterogeneous Passive Sensors. *Arulampalam, S.*, +, *TSP 2020 6681-6695*

A Method for Reducing the Performance Gap Between Non-Coherent and Coherent Sub-Arrays. *Tirer, T.*, +, *TSP 2020 3358-3370*

A Second-Order Method for Fitting the Canonical Polyadic Decomposition With Non-Least-Squares Cost. *Vandecappelle, M.*, +, *TSP 2020 4454-4465*

An Algebraic Closed-Form Solution for Bearings-Only Maneuvering Target Motion Analysis From a Nonmaneuvering Platform. *Badriasl, L.*, +, *TSP 2020 4672-4687*

AOA Pseudolinear Target Motion Analysis in the Presence of Sensor Location Errors. *Pang, F.*, +, *TSP 2020 3385-3399*

Asymptotically Optimal Blind Calibration of Uniform Linear Sensor Arrays for Narrowband Gaussian Signals. *Weiss, A.*, +, *TSP 2020 5322-5333*

Bayesian Cooperative Localization Using Received Signal Strength With Unknown Path Loss Exponent: Message Passing Approaches. *Jin, D.*, +, *TSP 2020 1120-1135*

Consensus-Based Clock Synchronization in Wireless Sensor Networks With Truncated Exponential Delays. *Wang, H.*, +, *TSP 2020 1425-1438*

Cooperative Detection by Multi-Agent Networks in the Presence of Position Uncertainty. *Gu, K.*, +, *TSP 2020 5411-5426*

Deviance Tests for Graph Estimation From Multi-Attribute Gaussian Data. *Tugnait, J.K.*, *TSP 2020 5632-5647*

Eigenspace Solution for AOA Localization in Modified Polar Representation. *Sun, Y.*, +, *TSP 2020 2256-2271*

Exploring Positive Noise in Estimation Theory. *Radnosrati, K.*, +, *TSP 2020 3590-3602*

Group Sparsity Based Localization for Far-Field and Near-Field Sources Based on Distributed Sensor Array Networks. *Shen, Q.*, +, *TSP 2020 6493-6508*

Joint Range and Velocity Estimation With Intrapulse and Intersubcarrier Doppler Effects for OFDM-Based RadCom Systems. *Zhang, F.*, +, *TSP 2020 662-675*

Learning Latent Features With Pairwise Penalties in Low-Rank Matrix Completion. *Ji, K.*, +, *TSP 2020 4210-4225*

Linear Multiple Low-Rank Kernel Based Stationary Gaussian Processes Regression for Time Series. *Yin, F.*, +, *TSP 2020 5260-5275*

Localization of a Moving Object With Sensors in Motion by Time Delays and Doppler Shifts. *Jia, T.*, +, *TSP 2020 5824-5841*

Localization of a Moving Source by Frequency Measurements. *Ahmed, M.M.*, +, *TSP 2020 4839-4854*

Low-Complexity Methods for Estimation After Parameter Selection. *Harel, N.*, +, *TSP 2020 1152-1167*

Modeling of Spatio-Temporal Hawkes Processes With Randomized Kernels. *Ilhan, F.*, +, *TSP 2020 4946-4958*

Multi-Channel Factor Analysis With Common and Unique Factors. *Ramirez, D.*, +, *TSP 2020 113-126*

Multi-Class Random Matrix Filtering for Adaptive Learning. *Braca, P.*, +, *TSP 2020 359-373*

Nearly Optimal Adaptive Sequential Tests for Object Detection. *Tartakovsky, A.G.*, +, *TSP 2020 3371-3384*

On DoA Estimation for Rotating Arrays Using Stochastic Maximum Likelihood Approach. *Meller, M.*, +, *TSP 2020 5219-5229*

- On the Resolution Probability of Conditional and Unconditional Maximum Likelihood DoA Estimation. *Mestre, X.*, +, *TSP 2020 4656-4671*
- Radar Adaptive Detection Architectures for Heterogeneous Environments. *Liu, J.*, +, *TSP 2020 4307-4319*
- Robust Semiparametric Efficient Estimators in Complex Elliptically Symmetric Distributions. *Fortunati, S.*, +, *TSP 2020 5003-5015*
- Scale-Invariant Subspace Detectors Based on First- and Second-Order Statistical Models. *Santamaria, I.*, +, *TSP 2020 6432-6443*
- Single-Pulse Simultaneous Target Detection and Angle Estimation in a Multichannel Phased Array Radar. *Aubry, A.*, +, *TSP 2020 6649-6664*
- Sparse Bayesian Learning With Dynamic Filtering for Inference of Time-Varying Sparse Signals. *O'Shaughnessy, M.R.*, +, *TSP 2020 388-403*
- Stereo Acoustic Echo Cancellation Based on Maximum Likelihood Estimation With Inter-Channel-Correlated Echo Compensation. *Cho, B.J.*, +, *TSP 2020 5188-5203*
- Suboptimal Low Complexity Joint Multi-Target Detection and Localization for Non-Coherent MIMO Radar With Widely Separated Antennas. *Yi, W.*, +, *TSP 2020 901-916*
- Target Detection With Imperfect Waveform Separation in Distributed MIMO Radar. *Wang, P.*, +, *TSP 2020 793-807*
- Tunable Adaptive Target Detection With Kernels in Colocated MIMO Radar. *Zaibashi, A.*, +, *TSP 2020 1500-1514*
- Tune Smarter Not Harder: A Principled Approach to Tuning Learning Rates for Shallow Nets. *Tholeti, T.*, +, *TSP 2020 5063-5078*
- Variational Bayesian Estimation of Statistical Properties of Composite Gamma Log-Normal Distribution. *Turlapaty, A.C.*, *TSP 2020 6481-6492*
- Mean square error methods**
- A Closed-Form Estimator for Bearings-Only Fusion of Heterogeneous Passive Sensors. *Arulampalam, S.*, +, *TSP 2020 6681-6695*
- A Framework of Robust Transmission Design for IRS-Aided MISO Communications With Imperfect Cascaded Channels. *Zhou, G.*, +, *TSP 2020 5092-5106*
- Adaptive Virtual Waveform Design for Millimeter-Wave Joint Communication-Radar. *Kumari, P.*, +, *TSP 2020 715-730*
- Affine Combination of Diffusion Strategies Over Networks. *Jin, D.*, +, *TSP 2020 2087-2104*
- Asymptotically Optimal Blind Calibration of Uniform Linear Sensor Arrays for Narrowband Gaussian Signals. *Weiss, A.*, +, *TSP 2020 5322-5333*
- Calibration of Phase Shifter Network for Hybrid Beamforming in mmWave Massive MIMO Systems. *Wei, X.*, +, *TSP 2020 2302-2315*
- Channel Estimation: Unified View of Optimal Performance and Pilot Sequences. *Le Magoarou, L.*, +, *TSP 2020 5588-5601*
- Constructions of Cross Z-Complementary Pairs With New Lengths. *Adhikary, A.R.*, +, *TSP 2020 4700-4712*
- Distributed Linear Estimation Via a Roaming Token. *Balthazar, L.*, +, *TSP 2020 780-792*
- Distributed Nonlinear Estimation Over Unbalanced Directed Networks. *Meng, M.*, +, *TSP 2020 6212-6223*
- Distributed Separated-Decorrelation LMS Algorithms Over Sensor Networks With Noisy Inputs. *Zhang, S.*, +, *TSP 2020 4163-4177*
- Fixed-Point Minimum Error Entropy With Fiducial Points. *Xie, Y.*, +, *TSP 2020 3824-3833*
- Fractional Spectrum Analysis for Nonuniform Sampling in the Presence of Clock Jitter and Timing Offset. *Ma, J.*, +, *TSP 2020 4148-4162*
- Low-Complexity Methods for Estimation After Parameter Selection. *Harel, N.*, +, *TSP 2020 1152-1167*
- Nonlinear Adaptive Filtering With Kernel Set-Membership Approach. *Chen, K.*, +, *TSP 2020 1515-1528*
- On the Influence of Bias-Correction on Distributed Stochastic Optimization. *Yuan, K.*, +, *TSP 2020 4352-4367*
- Online Data Dimensionality Reduction and Reconstruction Using Graph Filtering. *Schizas, I.D.*, *TSP 2020 3871-3886*
- Optimal Pilots for Anti-Eavesdropping Channel Estimation. *Zhu, Q.*, +, *TSP 2020 2629-2644*
- Spatial GNSS Spoofing Against Drone Swarms With Multiple Antennas and Wiener Filter. *Ceccato, M.*, +, *TSP 2020 5782-5794*
- Variational Bayesian Estimation of Statistical Properties of Composite Gamma Log-Normal Distribution. *Turlapaty, A.C.*, *TSP 2020 6481-6492*
- Measurement errors**
- On Optimality of Weighted Multidimensional Scaling for Range-Based Localization. *Wei, H.*, +, *TSP 2020 2105-2113*
- Median filters**
- Invariance-Preserving Localized Activation Functions for Graph Neural Networks. *Ruiz, L.*, +, *TSP 2020 127-141*
- Medical control systems**
- Real-Time Embedded EMG Signal Analysis for Wrist-Hand Pose Identification. *Raurale, S.A.*, +, *TSP 2020 2713-2723*
- Medical image processing**
- Brain Decoding of Viewed Image Categories via Semi-Supervised Multi-View Bayesian Generative Model. *Akamatsu, Y.*, +, *TSP 2020 5769-5781*
- Compressive Sensing Using Iterative Hard Thresholding With Low Precision Data Representation: Theory and Applications. *Gurel, N.M.*, +, *TSP 2020 4268-4282*
- Measurement of Power Density at Zero Frequency With a Trend Compensation. *Kim, D.S.*, *TSP 2020 1964-1973*
- Tensor Completion From Regular Sub-Nyquist Samples. *Kanatsoulis, C.I.*, +, *TSP 2020 1-16*
- Medical signal processing**
- Alternating Group Lasso for Block-Term Tensor Decomposition and Application to ECG Source Separation. *Goulart, J.H.d.M.*, +, *TSP 2020 2682-2696*
- Bayesian Nonnegative Matrix Factorization With Dirichlet Process Mixtures. *Li, C.*, +, *TSP 2020 3860-3870*
- Generalized Rational Variable Projection With Application in ECG Compression. *Kovacs, P.*, +, *TSP 2020 478-492*
- Low-Complexity On-Demand Reconstruction for Compressively Sensed Problematic Signals. *Chou, C.*, +, *TSP 2020 4094-4107*
- Multi-Pattern Recognition Through Maximization of Signal-to-Peak-Interference Ratio With Application to Neural Spike Sorting. *Wouters, J.*, +, *TSP 2020 6240-6254*
- Multitaper Analysis of Semi-Stationary Spectra From Multivariate Neuronal Spiking Observations. *Rupasinghe, A.*, +, *TSP 2020 4382-4396*
- Real-Time Embedded EMG Signal Analysis for Wrist-Hand Pose Identification. *Raurale, S.A.*, +, *TSP 2020 2713-2723*
- Tractable Inference and Observation Likelihood Evaluation in Latent Structure Influence Models. *Karimi, S.*, +, *TSP 2020 5736-5745*
- Message passing**
- A Simple Derivation of AMP and its State Evolution via First-Order Cancellation. *Schniter, P.*, *TSP 2020 4283-4292*
- Bayesian Cooperative Localization Using Received Signal Strength With Unknown Path Loss Exponent: Message Passing Approaches. *Jin, D.*, +, *TSP 2020 1120-1135*
- Compressive Sensing-Based Adaptive Active User Detection and Channel Estimation: Massive Access Meets Massive MIMO. *Ke, M.*, +, *TSP 2020 764-779*
- Multiple Bayesian Filtering as Message Passing. *Vitetta, G.M.*, +, *TSP 2020 1002-1020*
- Variance State Propagation for Structured Sparse Bayesian Learning. *Zhang, M.*, +, *TSP 2020 2386-2400*
- Microeconomics**
- Identifying Cognitive Radars - Inverse Reinforcement Learning Using Revealed Preferences. *Krishnamurthy, V.*, +, *TSP 2020 4529-4542*
- Microphones**
- Shapes From Echoes: Uniqueness From Point-to-Plane Distance Matrices. *Krekovic, M.*, +, *TSP 2020 2480-2498*
- Millimeter wave antenna arrays**
- Hybrid Transceivers Design for Large-Scale Antenna Arrays Using Majorization-Minimization Algorithms. *Arora, A.*, +, *TSP 2020 701-714*
- Millimeter wave communication**
- A Block Sparsity Based Estimator for mmWave Massive MIMO Channels With Beam Squint. *Wang, M.*, +, *TSP 2020 49-64*
- Adaptive Virtual Waveform Design for Millimeter-Wave Joint Communication-Radar. *Kumari, P.*, +, *TSP 2020 715-730*

Configuration Optimization and Channel Estimation in Hybrid Beamforming mmWave Systems With Channel Support Side Information. *Lian, L., +, TSP 2020 6026-6039*

Digital Predistortion for Multiuser Hybrid MIMO at mmWaves. *Brihuega, A., +, TSP 2020 3603-3618*

Hybrid Transceivers Design for Large-Scale Antenna Arrays Using Majorization-Minimization Algorithms. *Arora, A., +, TSP 2020 701-714*

Majorization-Minimization Aided Hybrid Transceivers for MIMO Interference Channels. *Gong, S., +, TSP 2020 4903-4918*

On the Max-Min Fairness of BeamSpace MIMO-NOMA. *Jiao, R., +, TSP 2020 4919-4932*

Partially Coherent Compressive Phase Retrieval for Millimeter-Wave Massive MIMO Channel Estimation. *Hu, C., +, TSP 2020 1673-1687*

Performance of Analog Beamforming Systems With Optimized Phase Noise Compensation. *Ratnam, V.V., TSP 2020 5334-5348*

Phased-Array Transmission for Secure mmWave Wireless Communication via Polygon Construction. *Zhang, X., +, TSP 2020 327-342*

Two-Step Codeword Design for Millimeter Wave Massive MIMO Systems With Quantized Phase Shifters. *Chen, K., +, TSP 2020 170-180*

#### Millimeter wave radar

Adaptive Virtual Waveform Design for Millimeter-Wave Joint Communication-Radar. *Kumari, P., +, TSP 2020 715-730*

#### MIMO communication

A Block Sparsity Based Estimator for mmWave Massive MIMO Channels With Beam Squint. *Wang, M., +, TSP 2020 49-64*

A MIMO Version of the Reed-Yu Detector and Its Connection to the Wilks Lambda and Hotelling  $T^2$  Statistics. *Butler, R.W., +, TSP 2020 2925-2934*

A Spatial-Temporal Subspace-Based Compressive Channel Estimation Technique in Unknown Interference MIMO Channels. *Takano, Y., +, TSP 2020 300-313*

A Tensor-Based Approach to Joint Channel Estimation/Data Detection in Flexible Multicarrier MIMO Systems. *Kofidis, E., TSP 2020 3179-3193*

Algorithms for Globally-Optimal Secure Signaling Over Gaussian MIMO Wiretap Channels Under Interference Constraints. *Dong, L., +, TSP 2020 4513-4528*

Bayes-Optimal MMSE Detector for Massive MIMO Relaying With Low-Precision ADCs/DACs. *Yang, X., +, TSP 2020 3341-3357*

Blind Channel Estimation for Downlink Massive MIMO Systems With Imperfect Channel Reciprocity. *Chopra, R., +, TSP 2020 3132-3145*

Calibration of Phase Shifter Network for Hybrid Beamforming in mmWave Massive MIMO Systems. *Wei, X., +, TSP 2020 2302-2315*

Channel Estimation: Unified View of Optimal Performance and Pilot Sequences. *Le Magoarou, L., +, TSP 2020 5588-5601*

Cloud-Assisted Cooperative Localization for Vehicle Platoons: A Turbo Approach. *Liu, A., +, TSP 2020 605-620*

Compressive Sensing-Based Adaptive Active User Detection and Channel Estimation: Massive Access Meets Massive MIMO. *Ke, M., +, TSP 2020 764-779*

Constructions of Cross Z-Complementary Pairs With New Lengths. *Adhikary, A.R., +, TSP 2020 4700-4712*

Decentralized Massive MIMO Processing Exploring Daisy-Chain Architecture and Recursive Algorithms. *Rodriguez Sanchez, J., +, TSP 2020 687-700*

Digital Predistortion for Multiuser Hybrid MIMO at mmWaves. *Brihuega, A., +, TSP 2020 3603-3618*

Double-Talk Robust Multichannel Acoustic Echo Cancellation Using Least-Squares MIMO Adaptive Filtering: Transversal, Array, and Lattice Forms. *Malik, S., +, TSP 2020 4887-4902*

Energy- and Area-Efficient Recursive-Conjugate-Gradient-Based MMSE Detector for Massive MIMO Systems. *Liu, L., +, TSP 2020 573-588*

Fast Algorithms for Joint Multicast Beamforming and Antenna Selection in Massive MIMO. *Ibrahim, M.S., +, TSP 2020 1897-1909*

Fast Optimization With Zeroth-Order Feedback in Distributed, Multi-User MIMO Systems. *Bilenne, O., +, TSP 2020 6085-6100*

Hybrid Transceivers Design for Large-Scale Antenna Arrays Using Majorization-Minimization Algorithms. *Arora, A., +, TSP 2020 701-714*

Joint Channel and Location Estimation of Massive MIMO System With Phase Noise. *Zheng, X., +, TSP 2020 2598-2612*

Joint Design of Surveillance Radar and MIMO Communication in Cluttered Environments. *Grossi, E., +, TSP 2020 1544-1557*

Joint Transmit Beamforming for Multiuser MIMO Communications and MIMO Radar. *Liu, X., +, TSP 2020 3929-3944*

Learned Conjugate Gradient Descent Network for Massive MIMO Detection. *Wei, Y., +, TSP 2020 6336-6349*

Majorization-Minimization Aided Hybrid Transceivers for MIMO Interference Channels. *Gong, S., +, TSP 2020 4903-4918*

Model-Driven Deep Learning for MIMO Detection. *He, H., +, TSP 2020 1702-1715*

On Low-Complexity Lattice Reduction Algorithms for Large-Scale MIMO Detection: The Blessing of Sequential Reduction. *Lyu, S., +, TSP 2020 257-269*

On the Max-Min Fairness of BeamSpace MIMO-NOMA. *Jiao, R., +, TSP 2020 4919-4932*

Partially Coherent Compressive Phase Retrieval for Millimeter-Wave Massive MIMO Channel Estimation. *Hu, C., +, TSP 2020 1673-1687*

Power Allocation Schemes for Uplink Massive MIMO System in the Presence of Imperfect CSI. *Yu, X., +, TSP 2020 5968-5982*

Robust Transceiver Design for AF Asymmetric Two-Way MIMO Relaying. *Pradhan, H., +, TSP 2020 5488-5503*

Spectral Efficiency and Energy Efficiency Tradeoff in Massive MIMO Downlink Transmission With Statistical CSIT. *You, L., +, TSP 2020 2645-2659*

Two-Channel Passive Detection of Cyclostationary Signals. *Horstmann, S., +, TSP 2020 2340-2355*

Two-Step Codeword Design for Millimeter Wave Massive MIMO Systems With Quantized Phase Shifters. *Chen, K., +, TSP 2020 170-180*

Two-User SIMO Interference Channel With Treating Interference as Noise: Improper Signaling Versus Time-Sharing. *Hellings, C., +, TSP 2020 6467-6480*

#### MIMO radar

Efficient Closed-Form Solution for Moving Target Localization in MIMO Radars With Minimum Number of Antennas. *Norozi, A., +, TSP 2020 2545-2557*

Erratum to "Polyphase Waveform Design for MIMO Radar Space Time Adaptive Processing" [Mar 20 2143-2154]. *Tang, B., +, TSP 2020 5487*

Gridless Parameter Estimation for One-Bit MIMO Radar With Time-Varying Thresholds. *Xi, F., +, TSP 2020 1048-1063*

Joint Transmit Beamforming for Multiuser MIMO Communications and MIMO Radar. *Liu, X., +, TSP 2020 3929-3944*

Massive MIMO Radar for Target Detection. *Fortunati, S., +, TSP 2020 859-871*

MIMO Radar Waveform Design in the Presence of Multiple Targets and Practical Constraints. *Yu, X., +, TSP 2020 1974-1989*

Multi-Channel Factor Analysis With Common and Unique Factors. *Ramirez, D., +, TSP 2020 113-126*

Multi-Stage Antenna Selection for Adaptive Beamforming in MIMO Radar. *Nosrati, H., +, TSP 2020 1374-1389*

Polyphase Waveform Design for MIMO Radar Space Time Adaptive Processing. *Tang, B., +, TSP 2020 2143-2154*

Resolving Range Ambiguity via Multiple-Input Multiple-Output Radar With Element-Pulse Coding. *Xu, J., +, TSP 2020 2770-2783*

Resource Scheduling for Distributed Multi-Target Tracking in Netted Colocated MIMO Radar Systems. *Yi, W., +, TSP 2020 1602-1617*

Riemannian Geometric Optimization Methods for Joint Design of Transmit Sequence and Receive Filter on MIMO Radar. *Li, J., +, TSP 2020 5602-5616*

Suboptimal Low Complexity Joint Multi-Target Detection and Localization for Non-Coherent MIMO Radar With Widely Separated Antennas. *Yi, W., +, TSP 2020 901-916*

Target Detection With Imperfect Waveform Separation in Distributed MIMO Radar. *Wang, P., +, TSP 2020 793-807*

Tunable Adaptive Target Detection With Kernels in Colocated MIMO Radar. *Zaimbashi, A., +, TSP 2020 1500-1514*

#### Minimax techniques

Algorithms for Globally-Optimal Secure Signaling Over Gaussian MIMO Wiretap Channels Under Interference Constraints. *Dong, L., +, TSP 2020 4513-4528*

Asymptotic Performance of Discrete-Valued Vector Reconstruction via Box-Constrained Optimization With Sum of  $\ell_1$  Regularizers. *Hayakawa, R.*, +, *TSP 2020 4320-4335*

Fast Algorithms for Joint Multicast Beamforming and Antenna Selection in Massive MIMO. *Ibrahim, M.S.*, +, *TSP 2020 1897-1909*

Hybrid Block Successive Approximation for One-Sided Non-Convex Min-Max Problems: Algorithms and Applications. *Lu, S.*, +, *TSP 2020 3676-3691*

Hybrid Transceivers Design for Large-Scale Antenna Arrays Using Majorization-Minimization Algorithms. *Arora, A.*, +, *TSP 2020 701-714*

Intelligent Reflecting Surface Aided Multigroup Multicast MISO Communication Systems. *Zhou, G.*, +, *TSP 2020 3236-3251*

Joint Channel and Location Estimation of Massive MIMO System With Phase Noise. *Zheng, X.*, +, *TSP 2020 2598-2612*

Large Intelligent Surface Aided Physical Layer Security Transmission. *Feng, B.*, +, *TSP 2020 5276-5291*

Majorize–Minimize Adapted Metropolis–Hastings Algorithm. *Marnissi, Y.*, +, *TSP 2020 2356-2369*

MIMO Radar Waveform Design in the Presence of Multiple Targets and Practical Constraints. *Yu, X.*, +, *TSP 2020 1974-1989*

Min-Max Metric for Spectrally Compatible Waveform Design Via Log-Exponential Smoothing. *Fan, W.*, +, *TSP 2020 1075-1090*

On the Max-Min Fairness of BeamSpace MIMO-NOMA. *Jiao, R.*, +, *TSP 2020 4919-4932*

One-Step Prediction for Discrete Time-Varying Nonlinear Systems With Unknown Inputs and Correlated Noises. *Abolhasani, M.*, +, *TSP 2020 808-817*

Penalty Dual Decomposition Method for Nonsmooth Nonconvex Optimization—Part II: Applications. *Shi, Q.*, +, *TSP 2020 4242-4257*

#### Minimization

A Framework of Robust Transmission Design for IRS-Aided MISO Communications With Imperfect Cascaded Channels. *Zhou, G.*, +, *TSP 2020 5092-5106*

A Generalized Accelerated Composite Gradient Method: Uniting Nesterov's Fast Gradient Method and FISTA. *Florea, M.I.*, +, *TSP 2020 3033-3048*

A Provably Communication-Efficient Asynchronous Distributed Inference Method for Convex and Nonconvex Problems. *Ren, J.*, +, *TSP 2020 3325-3340*

A Second-Order Method for Fitting the Canonical Polyadic Decomposition With Non-Least-Squares Cost. *Vandecappelle, M.*, +, *TSP 2020 4454-4465*

Accelerated Schemes for the  $L_1/L_2$  Minimization. *Wang, C.*, +, *TSP 2020 2660-2669*

Alternating Minimization Based First-Order Method for the Wireless Sensor Network Localization Problem. *Gur, E.*, +, *TSP 2020 6418-6431*

Blind Audio Source Separation With Minimum-Volume Beta-Divergence NMF. *Leplat, V.*, +, *TSP 2020 3400-3410*

Compressed Sensing Using Binary Matrices of Nearly Optimal Dimensions. *Lotfi, M.*, +, *TSP 2020 3008-3021*

Convergence Guarantees for Non-Convex Optimisation With Cauchy-Based Penalties. *Karakus, O.*, +, *TSP 2020 6159-6170*

Convergence of Distributed Stochastic Variance Reduced Methods Without Sampling Extra Data. *Cen, S.*, +, *TSP 2020 3976-3989*

Deep Neural Networks With Trainable Activations and Controlled Lipschitz Constant. *Aziznejad, S.*, +, *TSP 2020 4688-4699*

Deterministic Completion of Rectangular Matrices Using Asymmetric Ramanujan Graphs: Exact and Stable Recovery. *Burnwal, S.P.*, +, *TSP 2020 3834-3848*

Distributed Approximate Newton's Method Robust to Byzantine Attackers. *Cao, X.*, +, *TSP 2020 6011-6025*

Distributed Dual Gradient Tracking for Resource Allocation in Unbalanced Networks. *Zhang, J.*, +, *TSP 2020 2186-2198*

Fixed-Point Minimum Error Entropy With Fiducial Points. *Xie, Y.*, +, *TSP 2020 3824-3833*

Generalized Fixed-Point Continuation Method: Convergence and Application. *Xiao, P.*, +, *TSP 2020 5746-5758*

Gridless Parameter Estimation for One-Bit MIMO Radar With Time-Varying Thresholds. *Xi, F.*, +, *TSP 2020 1048-1063*

Guaranteed Recovery of One-Hidden-Layer Neural Networks via Cross Entropy. *Fu, H.*, +, *TSP 2020 3225-3235*

High-Dimensional Nonconvex Stochastic Optimization by Doubly Stochastic Successive Convex Approximation. *Mokhtari, A.*, +, *TSP 2020 6287-6302*

Hybrid Block Successive Approximation for One-Sided Non-Convex Min-Max Problems: Algorithms and Applications. *Lu, S.*, +, *TSP 2020 3676-3691*

Majorization-Minimization Aided Hybrid Transceivers for MIMO Interference Channels. *Gong, S.*, +, *TSP 2020 4903-4918*

Min-Max Metric for Spectrally Compatible Waveform Design Via Log-Exponential Smoothing. *Fan, W.*, +, *TSP 2020 1075-1090*

Minimum Byzantine Effort for Blinding Distributed Detection in Wireless Sensor Networks. *Lin, H.*, +, *TSP 2020 647-661*

Multi-Pattern Recognition Through Maximization of Signal-to-Peak-Interference Ratio With Application to Neural Spike Sorting. *Wouters, J.*, +, *TSP 2020 6240-6254*

Multilabel Classification With Multivariate Time Series Predictors. *Che, Y.*, +, *TSP 2020 5696-5705*

On the Convergence of a Bayesian Algorithm for Joint Dictionary Learning and Sparse Recovery. *Joseph, G.*, +, *TSP 2020 343-358*

Online Proximal Learning Over Jointly Sparse Multitask Networks With  $\ell_{\infty,1}$  Regularization. *Jin, D.*, +, *TSP 2020 6319-6335*

Phase-Only Robust Minimum Dispersion Beamforming. *Jiang, X.*, +, *TSP 2020 5664-5679*

Quaternion-Based Bilinear Factor Matrix Norm Minimization for Color Image Inpainting. *Miao, J.*, +, *TSP 2020 5617-5631*

Quickly Finding the Best Linear Model in High Dimensions via Projected Gradient Descent. *Sattar, Y.*, +, *TSP 2020 818-829*

Robust and Computationally Efficient Digital IIR Filter Synthesis and Stability Analysis Under Finite Precision Implementations. *Ko, H.*, +, *TSP 2020 1807-1822*

Robust Matrix Completion via Maximum Correntropy Criterion and Half-Quadratic Optimization. *He, Y.*, +, *TSP 2020 181-195*

Sensing Matrix Design and Sparse Recovery on the Sphere and the Rotation Group. *Bangun, A.*, +, *TSP 2020 1439-1454*

SPOQ $\ell_p$ -Over- $\ell_q$  Regularization for Sparse Signal Recovery Applied to Mass Spectrometry. *Cherni, A.*, +, *TSP 2020 6070-6084*

Support Recovery for Sparse Signals With Unknown Non-Stationary Modulation. *Xie, Y.*, +, *TSP 2020 1884-1896*

Trajectory Poisson Multi-Bernoulli Filters. *Garcia-Fernandez, A.F.*, +, *TSP 2020 4933-4945*

Tune Smarter Not Harder: A Principled Approach to Tuning Learning Rates for Shallow Nets. *Tholeti, T.*, +, *TSP 2020 5063-5078*

Two-Step Codeword Design for Millimeter Wave Massive MIMO Systems With Quantized Phase Shifters. *Chen, K.*, +, *TSP 2020 170-180*

Uniform RIP Conditions for Recovery of Sparse Signals by  $\ell_p$  ( $0 < p \leq 1$ ) Minimization. *Wan, A.*, *TSP 2020 5379-5394*

Variance-Reduced Stochastic Learning Under Random Reshuffling. *Ying, B.*, +, *TSP 2020 1390-1408*

#### Minimum entropy methods

Fixed-Point Minimum Error Entropy With Fiducial Points. *Xie, Y.*, +, *TSP 2020 3824-3833*

#### MISO communication

Algorithms for Globally-Optimal Secure Signaling Over Gaussian MIMO Wiretap Channels Under Interference Constraints. *Dong, L.*, +, *TSP 2020 4513-4528*

Intelligent Reflecting Surface Aided Multigroup Multicast MISO Communication Systems. *Zhou, G.*, +, *TSP 2020 3236-3251*

Robust SINR-Constrained Symbol-Level Multiuser Precoding With Imperfect Channel Knowledge. *Haqiqatnejad, A.*, +, *TSP 2020 1837-1852*

#### Mixture models

Bayesian Nonnegative Matrix Factorization With Dirichlet Process Mixtures. *Li, C.*, +, *TSP 2020 3860-3870*

Distributed Multi-Sensor Fusion of PHD Filters With Different Sensor Fields of View. *Yi, W.*, +, *TSP 2020 5204-5218*

Learning Nonlinear Mixtures: Identifiability and Algorithm. *Yang, B.*, +, *TSP 2020 2857-2869*

Nonlinear Multiview Analysis: Identifiability and Neural Network-Assisted Implementation. *Lyu, Q.*, +, *TSP 2020 2697-2712*



On Arithmetic Average Fusion and Its Application for Distributed Multi-Bernoulli Multitarget Tracking. *Li, T.*, +, *TSP 2020 2883-2896*

Source Separation With Side Information Based on Gaussian Mixture Models With Application in Art Investigation. *Sabetsarvestani, Z.*, +, *TSP 2020 558-572*

#### Mobile computing

High-Dimensional Stochastic Gradient Quantization for Communication-Efficient Edge Learning. *Du, Y.*, +, *TSP 2020 2128-2142*

#### Mobile radio

Cooperative Detection by Multi-Agent Networks in the Presence of Position Uncertainty. *Gu, K.*, +, *TSP 2020 5411-5426*

#### Mobile robots

Cloud-Assisted Cooperative Localization for Vehicle Platoons: A Turbo Approach. *Liu, A.*, +, *TSP 2020 605-620*

High-Dimensional Nonconvex Stochastic Optimization by Doubly Stochastic Successive Convex Approximation. *Mokhtari, A.*, +, *TSP 2020 6287-6302*

#### Modulation

Binary Sequence Set Design for Interferer Rejection in Multi-Branch Modulation. *Mo, D.*, +, *TSP 2020 3769-3778*

Cross Z-Complementary Pairs for Optimal Training in Spatial Modulation Over Frequency Selective Channels. *Liu, Z.*, +, *TSP 2020 1529-1543*

#### Molecular biophysics

Multi-Target Detection With an Arbitrary Spacing Distribution. *Lan, T.*, +, *TSP 2020 1589-1601*

#### Molecular communication (telecommunication)

CSI-Independent Non-Linear Signal Detection in Molecular Communications. *Li, B.*, +, *TSP 2020 97-112*

#### Monte Carlo methods

Bayesian Cooperative Localization Using Received Signal Strength With Unknown Path Loss Exponent: Message Passing Approaches. *Jin, D.*, +, *TSP 2020 1120-1135*

Distributed Sensing With Orthogonal Multiple Access: To Code or not to Code?. *Dong, Y.*, *TSP 2020 1315-1330*

Dynamic Sensor Subset Selection for Centralized Tracking of an IID Process. *Chattopadhyay, A.*, +, *TSP 2020 3209-3224*

Estimation of Dynamically Varying Support of Sparse Signals via Sequential Monte-Carlo Method. *Yoo, J.H.*, +, *TSP 2020 4135-4147*

Low-Complexity Methods for Estimation After Parameter Selection. *Harel, N.*, +, *TSP 2020 1152-1167*

Nearly Optimal Adaptive Sequential Tests for Object Detection. *Tartakovsky, A.G.*, +, *TSP 2020 3371-3384*

Non-Parametric Decomposing of Pulse Pile-Up Under Gaussian Noise With Finite Data Sets. *Mclean, C.*, +, *TSP 2020 2114-2127*

On DoA Estimation for Rotating Arrays Using Stochastic Maximum Likelihood Approach. *Meller, M.*, +, *TSP 2020 5219-5229*

Persymmetric Adaptive Detection of Distributed Targets With Unknown Steering Vectors. *Liu, J.*, +, *TSP 2020 4123-4134*

Stochastic Analysis of the Recursive Least Squares Algorithm for Cyclostationary Colored Inputs. *Eweda, E.*, +, *TSP 2020 676-686*

Student's t-VAR Modeling With Missing Data Via Stochastic EM and Gibbs Sampling. *Zhou, R.*, +, *TSP 2020 6198-6211*

Training Data Assisted Anomaly Detection of Multi-Pixel Targets In Hyperspectral Imagery. *Liu, J.*, +, *TSP 2020 3022-3032*

Tunable Adaptive Target Detection With Kernels in Colocated MIMO Radar. *Zaimbashi, A.*, +, *TSP 2020 1500-1514*

Variational Temporal Deep Generative Model for Radar HRRP Target Recognition. *Guo, D.*, +, *TSP 2020 5795-5809*

#### Motion estimation

An Algebraic Closed-Form Solution for Bearings-Only Maneuvering Target Motion Analysis From a Nonmaneuvering Platform. *Badriasl, L.*, +, *TSP 2020 4672-4687*

#### Motion measurement

AOA Pseudolinear Target Motion Analysis in the Presence of Sensor Location Errors. *Pang, F.*, +, *TSP 2020 3385-3399*

#### Moving average processes

Diffusion Average-Estimate Bias-Compensated LMS Algorithms Over Adaptive Networks Using Noisy Measurements. *Zhang, S.*, +, *TSP 2020 4643-4655*

NEWMA: A New Method for Scalable Model-Free Online Change-Point Detection. *Keriven, N.*, +, *TSP 2020 3515-3528*

#### Multi-access systems

Asynchronous Blind Network-Assisted Diversity Multiple Access. *Akl, N.*, +, *TSP 2020 990-1001*

Blind Over-the-Air Computation and Data Fusion via Provable Wirtinger Flow. *Dong, J.*, +, *TSP 2020 1136-1151*

Cooperative Activity Detection: Sourced and Unsourced Massive Random Access Paradigms. *Shao, X.*, +, *TSP 2020 6578-6593*

Distributed Sensing With Orthogonal Multiple Access: To Code or not to Code?. *Dong, Y.*, *TSP 2020 1315-1330*

Fast Optimization With Zeroth-Order Feedback in Distributed, Multi-User MIMO Systems. *Bilenne, O.*, +, *TSP 2020 6085-6100*

Generalized Fast-Convolution-Based Filtered-OFDM: Techniques and Application to 5G New Radio. *Yli-Kaakinen, J.*, +, *TSP 2020 1213-1228*

Machine Learning at the Wireless Edge: Distributed Stochastic Gradient Descent Over-the-Air. *Mohammadi Amiri, M.*, +, *TSP 2020 2155-2169*

NOMA-Aided UAV Communications over Correlated Rician Shadowed Fading Channels. *Ernest, T.Z.H.*, +, *TSP 2020 3103-3116*

On Analog Gradient Descent Learning Over Multiple Access Fading Channels. *Sery, T.*, +, *TSP 2020 2897-2911*

On the Max-Min Fairness of BeamSpace MIMO-NOMA. *Jiao, R.*, +, *TSP 2020 4919-4932*

Random Access Communication for Wireless Control Systems With Energy Harvesting Sensors. *Calvo-Fullana, M.*, +, *TSP 2020 3961-3975*

Robust Beamforming for NOMA-Based Cellular Massive IoT With SWIPT. *Qi, Q.*, +, *TSP 2020 211-224*

Robust SINR-Constrained Symbol-Level Multiuser Precoding With Imperfect Channel Knowledge. *Haqiqatnejad, A.*, +, *TSP 2020 1837-1852*

#### Multi-agent systems

Can Primal Methods Outperform Primal-Dual Methods in Decentralized Dynamic Optimization?. *Yuan, K.*, +, *TSP 2020 4466-4480*

Cooperative Detection by Multi-Agent Networks in the Presence of Position Uncertainty. *Gu, K.*, +, *TSP 2020 5411-5426*

Decentralized Multi-Agent Stochastic Optimization With Pairwise Constraints and Quantized Communications. *Cao, X.*, +, *TSP 2020 3296-3311*

Distributed Clustering Algorithm in Sensor Networks via Normalized Information Measures. *Qin, J.*, +, *TSP 2020 3266-3279*

Distributed Constrained Online Learning. *Paternain, S.*, +, *TSP 2020 3486-3499*

Distributed Nonlinear Estimation Over Unbalanced Directed Networks. *Meng, M.*, +, *TSP 2020 6212-6223*

Distributed Signal Processing and Optimization Based on In-Network Subspace Projections. *Di Lorenzo, P.*, +, *TSP 2020 2061-2076*

Privacy-Preserving Incremental ADMM for Decentralized Consensus Optimization. *Ye, Y.*, +, *TSP 2020 5842-5854*

Prospect Theoretic Utility Based Human Decision Making in Multi-Agent Systems. *Geng, B.*, +, *TSP 2020 1091-1104*

Walkman: A Communication-Efficient Random-Walk Algorithm for Decentralized Optimization. *Mao, X.*, +, *TSP 2020 2513-2528*

#### Multicast communication

Fast Algorithms for Joint Multicast Beamforming and Antenna Selection in Massive MIMO. *Ibrahim, M.S.*, +, *TSP 2020 1897-1909*

Intelligent Reflecting Surface Aided Multigroup Multicast MISO Communication Systems. *Zhou, G.*, +, *TSP 2020 3236-3251*

Multi-Group Multicast Beamforming: Optimal Structure and Efficient Algorithms. *Dong, M.*, +, *TSP 2020 3738-3753*

Penalty Dual Decomposition Method for Nonsmooth Nonconvex Optimization—Part II: Applications. *Shi, Q.*, +, *TSP 2020 4242-4257*

#### Multipath channels

A Block Sparsity Based Estimator for mmWave Massive MIMO Channels With Beam Squint. *Wang, M.*, +, *TSP 2020 49-64*

Diffuse Multipath Exploitation for Adaptive Detection of Range Distributed Targets. *Rong, Y.*, +, *TSP 2020 1197-1212*

Digital Predistortion for Multiuser Hybrid MIMO at mmWaves. *Brihuega, A.*, +, *TSP 2020 3603-3618*

Multipath Suppression for Continuous Wave Radar via Slepian Sequences. *Day, B.P.*, +, *TSP 2020 548-557*

Sherman-Morrison Formula Aided Adaptive Channel Estimation for Underwater Visible Light Communication With Fractionally-Sampled OFDM. *Chen, J.*, +, *TSP 2020 2784-2798*

#### Multuser channels

Blind Over-the-Air Computation and Data Fusion via Provable Wirtinger Flow. *Dong, J.*, +, *TSP 2020 1136-1151*

Machine Learning at the Wireless Edge: Distributed Stochastic Gradient Descent Over-the-Air. *Mohammadi Amiri, M.*, +, *TSP 2020 2155-2169*

Robust Beamforming for NOMA-Based Cellular Massive IoT With SWIPT. *Qi, Q.*, +, *TSP 2020 211-224*

#### Multivariable systems

Can Primal Methods Outperform Primal-Dual Methods in Decentralized Dynamic Optimization?. *Yuan, K.*, +, *TSP 2020 4466-4480*

## N

#### Network parameters

Distributed Linear Estimation Via a Roaming Token. *Balthazar, L.*, +, *TSP 2020 780-792*

#### Network theory (graphs)

Distributed Clustering Algorithm in Sensor Networks via Normalized Information Measures. *Qin, J.*, +, *TSP 2020 3266-3279*

Distributed Dual Gradient Tracking for Resource Allocation in Unbalanced Networks. *Zhang, J.*, +, *TSP 2020 2186-2198*

Distributed Nonlinear Estimation Over Unbalanced Directed Networks. *Meng, M.*, +, *TSP 2020 6212-6223*

Exact Blind Community Detection From Signals on Multiple Graphs. *Roddenberry, T.M.*, +, *TSP 2020 5016-5030*

Online Proximal Learning Over Jointly Sparse Multitask Networks With  $\ell_{\infty,1}$  Regularization. *Jin, D.*, +, *TSP 2020 6319-6335*

#### Network control systems

Random Access Communication for Wireless Control Systems With Energy Harvesting Sensors. *Calvo-Fullana, M.*, +, *TSP 2020 3961-3975*

#### Neural network architecture

Model-Based Deep Learning for One-Bit Compressive Sensing. *Khobahi, S.*, +, *TSP 2020 5292-5307*

Optimal Wireless Resource Allocation With Random Edge Graph Neural Networks. *Eisen, M.*, +, *TSP 2020 2977-2991*

Tensor Graph Convolutional Networks for Multi-Relational and Robust Learning. *Ioannidis, V.N.*, +, *TSP 2020 6535-6546*

#### Neural networks

A Globally Optimal Energy-Efficient Power Control Framework and Its Efficient Implementation in Wireless Interference Networks. *Mathiesen, B.*, +, *TSP 2020 3887-3902*

Analyzing Upper Bounds on Mean Absolute Errors for Deep Neural Network-Based Vector-to-Vector Regression. *Qi, J.*, +, *TSP 2020 3411-3422*

Approximation Algorithms for Training One-Node ReLU Neural Networks. *Dey, S.S.*, +, *TSP 2020 6696-6706*

Comments on "Deep Neural Networks With Random Gaussian Weights: A Universal Classification Strategy?". *Gulcu, T.C.*, *TSP 2020 2401-2403*

Corrections to "Deep Neural Networks With Random Gaussian Weights: A Universal Classification Strategy?" [Jul 1, 2016 3444-3457]. *Giryres, R.*, +, *TSP 2020 529-531*

Deep Neural Networks With Trainable Activations and Controlled Lipschitz Constant. *Aziznejad, S.*, +, *TSP 2020 4688-4699*

Deeply-Sparse Signal rePresentations (DS<sup>2</sup>P). *Ba, D.*, *TSP 2020 4727-4742*

Learned Conjugate Gradient Descent Network for Massive MIMO Detection. *Wei, Y.*, +, *TSP 2020 6336-6349*

Learning Nonlinear Mixtures: Identifiability and Algorithm. *Yang, B.*, +, *TSP 2020 2857-2869*

Learning Proximal Operator Methods for Nonconvex Sparse Recovery with Theoretical Guarantee. *Yang, C.*, +, *TSP 2020 5244-5259*

Multitaper Analysis of Semi-Stationary Spectra From Multivariate Neuronal Spiking Observations. *Rupasinghe, A.*, +, *TSP 2020 4382-4396*

Nonlinear Multiview Analysis: Identifiability and Neural Network-Assisted Implementation. *Lyu, Q.*, +, *TSP 2020 2697-2712*

Online Proximal Learning Over Jointly Sparse Multitask Networks With  $\ell_{\infty,1}$  Regularization. *Jin, D.*, +, *TSP 2020 6319-6335*

Stability Properties of Graph Neural Networks. *Gama, F.*, +, *TSP 2020 5680-5695*

Subsampling Generative Adversarial Networks: Density Ratio Estimation in Feature Space With Softplus Loss. *Ding, X.*, +, *TSP 2020 1910-1922*

Un-Rectifying Non-Linear Networks for Signal Representation. *Hwang, W.*, +, *TSP 2020 196-210*

Unified and Self-Stabilized Parallel Algorithm for Multiple Generalized Eigenpairs Extraction. *Kong, X.*, +, *TSP 2020 3644-3659*

#### Neurophysiology

Brain Decoding of Viewed Image Categories via Semi-Supervised Multi-View Bayesian Generative Model. *Akamatsu, Y.*, +, *TSP 2020 5769-5781*

Multitaper Analysis of Semi-Stationary Spectra From Multivariate Neuronal Spiking Observations. *Rupasinghe, A.*, +, *TSP 2020 4382-4396*

#### Newton method

A Second-Order Method for Fitting the Canonical Polyadic Decomposition With Non-Least-Squares Cost. *Vandecappelle, M.*, +, *TSP 2020 4454-4465*

Distributed Approximate Newton's Method Robust to Byzantine Attackers. *Cao, X.*, +, *TSP 2020 6011-6025*

Localization of a Moving Object With Sensors in Motion by Time Delays and Doppler Shifts. *Jia, T.*, +, *TSP 2020 5824-5841*

Newton-Step-Based Hard Thresholding Algorithms for Sparse Signal Recovery. *Meng, N.*, +, *TSP 2020 6594-6606*

#### Noise

Algorithms for Change Detection With Sparse Signals. *Jain, A.*, +, *TSP 2020 1331-1345*

Change Detection in Complex Dynamical Systems Using Intrinsic Phase and Amplitude Synchronization. *Iquebal, A.S.*, +, *TSP 2020 4743-4756*

#### Nondestructive testing

Defect Detection and Classification by Training a Generic Convolutional Neural Network Encoder. *Dong, X.*, +, *TSP 2020 6055-6069*

#### Nonlinear control systems

Augmented Space Linear Models. *Qin, Z.*, +, *TSP 2020 2724-2738*

One-Step Prediction for Discrete Time-Varying Nonlinear Systems With Unknown Inputs and Correlated Noises. *Abolhasani, M.*, +, *TSP 2020 808-817*

Security-Enhanced Filter Design for Stochastic Systems under Malicious Attack via Smoothed Signal Model and Multiobjective Estimation Method. *Chen, B.*, +, *TSP 2020 4971-4986*

#### Nonlinear distortion

Digital Predistortion for Multiuser Hybrid MIMO at mmWaves. *Brihuega, A.*, +, *TSP 2020 3603-3618*

Learning Nonlinear Mixtures: Identifiability and Algorithm. *Yang, B.*, +, *TSP 2020 2857-2869*

#### Nonlinear dynamical systems

One-Step Prediction for Discrete Time-Varying Nonlinear Systems With Unknown Inputs and Correlated Noises. *Abolhasani, M.*, +, *TSP 2020 808-817*

System Identification of High-Dimensional Linear Dynamical Systems With Serially Correlated Output Noise Components. *Lin, J.*, +, *TSP 2020 5573-5587*

#### Nonlinear estimation

Distributed Nonlinear Estimation Over Unbalanced Directed Networks. *Meng, M.*, +, *TSP 2020 6212-6223*

#### Nonlinear filters

Multiple Bayesian Filtering as Message Passing. *Vitetta, G.M.*, +, *TSP 2020 1002-1020*

Nonlinear Filtering With Variable Bandwidth Exponential Kernels. *Taseska, M.*, +, *TSP 2020 314-326*

Orthogonal Periodic Sequences for the Identification of Functional Link Polynomial Filters. *Carini, A.*, +, *TSP 2020 5308-5321*

#### Nonlinear systems

Orthogonal Periodic Sequences for the Identification of Functional Link Polynomial Filters. *Carini, A.*, +, *TSP 2020 5308-5321*

#### Nonparametric statistics

Non-Parametric Decoupling of Pulse Pile-Up Under Gaussian Noise With Finite Data Sets. *Mclean, C.*, +, *TSP 2020 2114-2127*

#### Normal distribution

Extended Object Tracking Using Random Matrix With Skewness. *Zhang, L.*, +, *TSP 2020 5107-5121*

Robust Transceiver Design for AF Asymmetric Two-Way MIMO Relaying. *Pradhan, H.*, +, *TSP 2020 5488-5503*

#### Number theory

Two Dimensional Efficient Multiplier-Less Structures of Möbius Function for Ramanujan Filter Banks. *Pei, S.*, +, *TSP 2020 5079-5091*

#### Numerical analysis

Joint Source and Sensor Localization by Angles of Arrival. *Le, T.*, +, *TSP 2020 6521-6534*

Multi-Carrier Agile Phased Array Radar. *Huang, T.*, +, *TSP 2020 5706-5721*

Precise 3-D GNSS Attitude Determination Based on Riemannian Manifold Optimization Algorithms. *Douik, A.*, +, *TSP 2020 284-299*

Quadratic FM Signal Detection and Parameter Estimation Using Coherently Integrated Trilinear Autocorrelation Function. *Zhang, J.*, +, *TSP 2020 621-633*

Sparse Bayesian Learning With Dynamic Filtering for Inference of Time-Varying Sparse Signals. *O'Shaughnessy, M.R.*, +, *TSP 2020 388-403*

#### Numerical stability

Double-Talk Robust Multichannel Acoustic Echo Cancellation Using Least-Squares MIMO Adaptive Filtering: Transversal, Array, and Lattice Forms. *Malik, S.*, +, *TSP 2020 4887-4902*

### O

#### Object detection

A Dictionary-Based Generalization of Robust PCA With Applications to Target Localization in Hyperspectral Imaging. *Rambhatla, S.*, +, *TSP 2020 1760-1775*

A Solution for Large-Scale Multi-Object Tracking. *Beard, M.*, +, *TSP 2020 2754-2769*

Cooperative Detection by Multi-Agent Networks in the Presence of Position Uncertainty. *Gu, K.*, +, *TSP 2020 5411-5426*

Diffuse Multipath Exploitation for Adaptive Detection of Range Distributed Targets. *Rong, Y.*, +, *TSP 2020 1197-1212*

Erratum to "Polyphase Waveform Design for MIMO Radar Space Time Adaptive Processing" [Mar 20 2143-2154]. *Tang, B.*, +, *TSP 2020 5487*

Invariance Theory for Adaptive Detection in Non-Gaussian Clutter. *Tang, M.*, +, *TSP 2020 2045-2060*

Massive MIMO Radar for Target Detection. *Fortunati, S.*, +, *TSP 2020 859-871*

Multi-Target Detection With an Arbitrary Spacing Distribution. *Lan, T.*, +, *TSP 2020 1589-1601*

Nearly Optimal Adaptive Sequential Tests for Object Detection. *Tartakovsky, A.G.*, +, *TSP 2020 3371-3384*

Persymmetric Adaptive Detection of Distributed Targets With Unknown Steering Vectors. *Liu, J.*, +, *TSP 2020 4123-4134*

Polyphase Waveform Design for MIMO Radar Space Time Adaptive Processing. *Tang, B.*, +, *TSP 2020 2143-2154*

Single-Pulse Simultaneous Target Detection and Angle Estimation in a Multichannel Phased Array Radar. *Aubry, A.*, +, *TSP 2020 6649-6664*

Suboptimal Low Complexity Joint Multi-Target Detection and Localization for Non-Coherent MIMO Radar With Widely Separated Antennas. *Yi, W.*, +, *TSP 2020 901-916*

Target Detection With Imperfect Waveform Separation in Distributed MIMO Radar. *Wang, P.*, +, *TSP 2020 793-807*

Training Data Assisted Anomaly Detection of Multi-Pixel Targets In Hyperspectral Imagery. *Liu, J.*, +, *TSP 2020 3022-3032*

Two Dimensional Efficient Multiplier-Less Structures of Möbius Function for Ramanujan Filter Banks. *Pei, S.*, +, *TSP 2020 5079-5091*

#### Object tracking

A Solution for Large-Scale Multi-Object Tracking. *Beard, M.*, +, *TSP 2020 2754-2769*

A Variational Bayes Approach to Adaptive Radio Tomography. *Lee, D.*, +, *TSP 2020 3779-3792*

Computationally Efficient Distributed Multi-Sensor Fusion With Multi-Bernoulli Filter. *Yi, W.*, +, *TSP 2020 241-256*

Dynamic Sensor Subset Selection for Centralized Tracking of an IID Process. *Chattopadhyay, A.*, +, *TSP 2020 3209-3224*

Extended Object Tracking Using Random Matrix With Skewness. *Zhang, L.*, +, *TSP 2020 5107-5121*

Topological Sweep for Multi-Target Detection of Geostationary Space Objects. *Liu, D.*, +, *TSP 2020 5166-5177*

#### OFDM modulation

A Tensor-Based Approach to Joint Channel Estimation/Data Detection in Flexible Multicarrier MIMO Systems. *Kofidis, E.*, *TSP 2020 3179-3193*

Blind Interference Alignment With ISI: A New Look at OFDM for  $K$ -User Interference Channels. *Lee, B.*, +, *TSP 2020 4497-4512*

Channel Estimation: Unified View of Optimal Performance and Pilot Sequences. *Le Magoarou, L.*, +, *TSP 2020 5588-5601*

Generalized Fast-Convolution-Based Filtered-OFDM: Techniques and Application to 5G New Radio. *Yli-Kaakinen, J.*, +, *TSP 2020 1213-1228*

Joint Range and Velocity Estimation With Intrapulse and Intersubcarrier Doppler Effects for OFDM-Based RadCom Systems. *Zhang, F.*, +, *TSP 2020 662-675*

Joint Subcarrier and Power Allocation in NOMA: Optimal and Approximate Algorithms. *Salaun, L.*, +, *TSP 2020 2215-2230*

On the Inclusion and Utilization of Pilot Tones in Unique Word OFDM. *Hofbauer, C.*, +, *TSP 2020 5504-5518*

Sherman-Morrison Formula Aided Adaptive Channel Estimation for Underwater Visible Light Communication With Fractionally-Sampled OFDM. *Chen, J.*, +, *TSP 2020 2784-2798*

Tune Smarter Not Harder: A Principled Approach to Tuning Learning Rates for Shallow Nets. *Tholeti, T.*, +, *TSP 2020 5063-5078*

#### Optical computing

NEWMA: A New Method for Scalable Model-Free Online Change-Point Detection. *Keriven, N.*, +, *TSP 2020 3515-3528*

#### Optical images

Topological Sweep for Multi-Target Detection of Geostationary Space Objects. *Liu, D.*, +, *TSP 2020 5166-5177*

#### Optical modulation

Sherman-Morrison Formula Aided Adaptive Channel Estimation for Underwater Visible Light Communication With Fractionally-Sampled OFDM. *Chen, J.*, +, *TSP 2020 2784-2798*

#### Optical transfer function

Hybrid Beamforming for Active Sensing Using Sparse Arrays. *Rajamaki, R.*, +, *TSP 2020 6402-6417*

#### Optimal control

Online Trajectory and Radio Resource Optimization of Cache-Enabled UAV Wireless Networks With Content and Energy Recharging. *Chai, S.*, +, *TSP 2020 1286-1299*

#### Optimization

A Dimension Reduction-Based Joint Activity Detection and Channel Estimation Algorithm for Massive Access. *Shao, X.*, +, *TSP 2020 420-435*

A Globally Optimal Energy-Efficient Power Control Framework and Its Efficient Implementation in Wireless Interference Networks. *Matthiesen, B.*, +, *TSP 2020 3887-3902*

A Grant-Free Method for Massive Machine-Type Communication With Backward Activity Level Estimation. *Xiao, H.*, +, *TSP 2020 6665-6680*

A Large Dimensional Study of Regularized Discriminant Analysis. *Elkhalil, K.*, +, *TSP 2020 2464-2479*

A New Atomic Norm for DOA Estimation With Gain-Phase Errors. *Chen, P.*, +, *TSP 2020 4293-4306*

A Novel Algorithm for Optimal Placement of Multiple Inertial Sensors to Improve the Sensing Accuracy. *Sahu, N.*, +, *TSP 2020 142-154*

A Provably Communication-Efficient Asynchronous Distributed Inference Method for Convex and Nonconvex Problems. *Ren, J.*, +, *TSP 2020 3325-3340*

A Simple Derivation of AMP and its State Evolution via First-Order Cancellation. *Schniter, P.*, *TSP 2020 4283-4292*

Adaptation and Learning Over Networks Under Subspace Constraints—Part II: Performance Analysis. *Nassif, R.*, +, *TSP 2020 2948-2962*

Adaptive Virtual Waveform Design for Millimeter-Wave Joint Communication-Radar. *Kumari, P.*, +, *TSP 2020 715-730*

An Exact Expectation Model for the LMS Tracking Abilities. *Silva, T.T.P.*, +, *TSP 2020 5882-5893*

An Investigation and Solution of Angle Based Rigid Body Localization. *Wang, Y.*, +, *TSP 2020 5457-5472*

Aperture-Level Simultaneous Transmit and Receive With Digital Phased Arrays. *Cummings, I.T.*, +, *TSP 2020 1243-1258*

- Approximation Algorithms for Training One-Node ReLU Neural Networks. *Dey, S.S.*, +, *TSP 2020 6696-6706*
- Asymptotically Optimal Blind Calibration of Uniform Linear Sensor Arrays for Narrowband Gaussian Signals. *Weiss, A.*, +, *TSP 2020 5322-5333*
- Beamspace Direct Localization for Large-Scale Antenna Array Systems. *Zhao, H.*, +, *TSP 2020 3529-3544*
- Blind Deconvolution Using Modulated Inputs. *Ahmed, A.*, *TSP 2020 374-387*
- Block-Randomized Stochastic Proximal Gradient for Low-Rank Tensor Factorization. *Fu, X.*, +, *TSP 2020 2170-2185*
- Channel Estimation: Unified View of Optimal Performance and Pilot Sequences. *Le Magoarou, L.*, +, *TSP 2020 5588-5601*
- Communication Under Channel Uncertainty: An Algorithmic Perspective and Effective Construction. *Boche, H.*, +, *TSP 2020 6224-6239*
- Configuration Optimization and Channel Estimation in Hybrid Beamforming mmWave Systems With Channel Support Side Information. *Lian, L.*, +, *TSP 2020 6026-6039*
- Constructions of Cross Z-Complementary Pairs With New Lengths. *Adhikary, A.R.*, +, *TSP 2020 4700-4712*
- Cooperative Activity Detection: Sourced and Unsourced Massive Random Access Paradigms. *Shao, X.*, +, *TSP 2020 6578-6593*
- Cost-Aware Cascading Bandits. *Gan, C.*, +, *TSP 2020 3692-3706*
- Decentralized Expectation Consistent Signal Recovery for Phase Retrieval. *Wang, C.*, +, *TSP 2020 1484-1499*
- Direct Target Tracking by Distributed Gaussian Particle Filtering for Heterogeneous Networks. *Xia, W.*, +, *TSP 2020 1361-1373*
- Distributed Optimal Linear Fusion Predictors and Filters for Systems With Random Parameter Matrices and Correlated Noises. *Sun, S.*, *TSP 2020 1064-1074*
- Distributed Signal Processing and Optimization Based on In-Network Subspace Projections. *Di Lorenzo, P.*, +, *TSP 2020 2061-2076*
- Energy-Optimal Multiple Access Computation Offloading: Signalling Structure and Efficient Communication Resource Allocation. *Salmani, M.*, +, *TSP 2020 1646-1661*
- Erratum to "Security-Enhanced Filter Design for Stochastic Systems Under Malicious Attack via Smoothed Signal Model and Multiobjective Estimation Method" [20 4971-4986]. *Chen, B.*, +, *TSP 2020 5923*
- Fast Graph Sampling Set Selection Using Gershgorin Disc Alignment. *Bai, Y.*, +, *TSP 2020 2419-2434*
- Feature Graph Learning for 3D Point Cloud Denoising. *Hu, W.*, +, *TSP 2020 2841-2856*
- Generalized Fast-Convolution-Based Filtered-OFDM: Techniques and Application to 5G New Radio. *Yli-Kaakinen, J.*, +, *TSP 2020 1213-1228*
- Greedy Algorithms for Sparse and Positive Signal Recovery Based on Bit-Wise MAP Detection. *Chae, J.*, +, *TSP 2020 4017-4029*
- Hybrid Beamforming for Active Sensing Using Sparse Arrays. *Rajamaki, R.*, +, *TSP 2020 6402-6417*
- Hybrid Inexact BCD for Coupled Structured Matrix Factorization in Hyperspectral Super-Resolution. *Wu, R.*, +, *TSP 2020 1728-1743*
- Identifying Cognitive Radars - Inverse Reinforcement Learning Using Revealed Preferences. *Krishnamurthy, V.*, +, *TSP 2020 4529-4542*
- Inverse Filtering for Hidden Markov Models With Applications to Counter-Adversarial Autonomous Systems. *Mattila, R.*, +, *TSP 2020 4987-5002*
- Joint EigenValue Decomposition Algorithms Based on First-Order Taylor Expansion. *Andre, R.*, +, *TSP 2020 1716-1727*
- Joint Source and Sensor Localization by Angles of Arrival. *Le, T.*, +, *TSP 2020 6521-6534*
- Joint Subcarrier and Power Allocation in NOMA: Optimal and Approximate Algorithms. *Salaun, L.*, +, *TSP 2020 2215-2230*
- Joint Transmit Beamforming for Multiuser MIMO Communications and MIMO Radar. *Liu, X.*, +, *TSP 2020 3929-3944*
- Learning Latent Features With Pairwise Penalties in Low-Rank Matrix Completion. *Ji, K.*, +, *TSP 2020 4210-4225*
- Linear Multiple Low-Rank Kernel Based Stationary Gaussian Processes Regression for Time Series. *Yin, F.*, +, *TSP 2020 5260-5275*
- Low-Complexity Methods for Estimation After Parameter Selection. *Harel, N.*, +, *TSP 2020 1152-1167*
- Model-Based Deep Learning for One-Bit Compressive Sensing. *Khobahi, S.*, +, *TSP 2020 5292-5307*
- Modeling of Spatio-Temporal Hawkes Processes With Randomized Kernels. *Ilhan, F.*, +, *TSP 2020 4946-4958*
- Multi-Channel Factor Analysis With Common and Unique Factors. *Ramirez, D.*, +, *TSP 2020 113-126*
- Nearly Optimal Adaptive Sequential Tests for Object Detection. *Tartakovsky, A.G.*, +, *TSP 2020 3371-3384*
- Network Dissensus via Distributed ADMM. *Kumar, C.*, +, *TSP 2020 2287-2301*
- New Viewpoint and Algorithms for Water-Filling Solutions in Wireless Communications. *Xing, C.*, +, *TSP 2020 1618-1634*
- Newton-Step-Based Hard Thresholding Algorithms for Sparse Signal Recovery. *Meng, N.*, +, *TSP 2020 6594-6606*
- Non-Parametric Decomposition of Pulse Pile-Up Under Gaussian Noise With Finite Data Sets. *McLean, C.*, +, *TSP 2020 2114-2127*
- On Maintaining Linear Convergence of Distributed Learning and Optimization Under Limited Communication. *Magnusson, S.*, +, *TSP 2020 6101-6116*
- On the Design of Multi-Spectrally Constrained Constant Modulus Radar Signals. *Aubry, A.*, +, *TSP 2020 2231-2243*
- On the Inclusion and Utilization of Pilot Tones in Unique Word OFDM. *Hofbauer, C.*, +, *TSP 2020 5504-5518*
- Online Trajectory and Radio Resource Optimization of Cache-Enabled UAV Wireless Networks With Content and Energy Recharging. *Chai, S.*, +, *TSP 2020 1286-1299*
- Online Trajectory Optimization Using Inexact Gradient Feedback for Time-Varying Environments. *Nutalapati, M.K.*, +, *TSP 2020 4824-4838*
- Optimal Resource Allocation for Asynchronous Multiple Targets Tracking in Heterogeneous Radar Networks. *Yan, J.*, +, *TSP 2020 4055-4068*
- Optimal Sequential Estimation for Asynchronous Sampling Discrete-Time Systems. *Lin, H.*, +, *TSP 2020 6117-6127*
- Optimal Wireless Resource Allocation With Random Edge Graph Neural Networks. *Eisen, M.*, +, *TSP 2020 2977-2991*
- Perturbed Amplitude Flow for Phase Retrieval. *Gao, B.*, +, *TSP 2020 5427-5440*
- Polyphase Waveform Design for MIMO Radar Space Time Adaptive Processing. *Tang, B.*, +, *TSP 2020 2143-2154*
- Privacy-Preserving Distributed Optimization via Subspace Perturbation: A General Framework. *Li, Q.*, +, *TSP 2020 5983-5996*
- Quadratic Optimization for Unimodular Sequence Design via an ADPM Framework. *Yu, X.*, +, *TSP 2020 3619-3634*
- Security-Enhanced Filter Design for Stochastic Systems under Malicious Attack via Smoothed Signal Model and Multiobjective Estimation Method. *Chen, B.*, +, *TSP 2020 4971-4986*
- Sparse Array Design via Fractal Geometries. *Cohen, R.*, +, *TSP 2020 4797-4812*
- Spectral Efficiency and Energy Efficiency Tradeoff in Massive MIMO Downlink Transmission With Statistical CSIT. *You, L.*, +, *TSP 2020 2645-2659*
- Spectrum Cartography via Coupled Block-Term Tensor Decomposition. *Zhang, G.*, +, *TSP 2020 3660-3675*
- Suboptimal Low Complexity Joint Multi-Target Detection and Localization for Non-Coherent MIMO Radar With Widely Separated Antennas. *Yi, W.*, +, *TSP 2020 901-916*
- System Identification of High-Dimensional Linear Dynamical Systems With Serially Correlated Output Noise Components. *Lin, J.*, +, *TSP 2020 5573-5587*
- Understanding the Quintile Portfolio. *Zhou, R.*, +, *TSP 2020 4030-4040*
- Walkman: A Communication-Efficient Random-Walk Algorithm for Decentralized Optimization. *Mao, X.*, +, *TSP 2020 2513-2528*

## P

### Parallel algorithms

Unified and Self-Stabilized Parallel Algorithm for Multiple Generalized Eigenpairs Extraction. *Kong, X.*, +, *TSP 2020 3644-3659*

### Parameter estimation

Algorithms for Change Detection With Sparse Signals. *Jain, A.*, +, *TSP 2020 1331-1345*

Differential Private Noise Adding Mechanism and Its Application on Consensus Algorithm. *He, J.*, +, *TSP 2020 4069-4082*

Distributed Linear Estimation Via a Roaming Token. *Balthazar, L.*, +, *TSP 2020 780-792*

- Distributed Nonlinear Estimation Over Unbalanced Directed Networks. *Meng, M.*, +, *TSP 2020 6212-6223*
- Estimation of Sinusoidal Frequency-Modulated Signal Parameters by Two Branches and Two Stages. *Bai, G.*, +, *TSP 2020 4959-4970*
- Frequency-Domain Prony Method for Autoregressive Model Identification and Sinusoidal Parameter Estimation. *Ando, S.*, *TSP 2020 3461-3470*
- Gridless Parameter Estimation for One-Bit MIMO Radar With Time-Varying Thresholds. *Xi, F.*, +, *TSP 2020 1048-1063*
- High-Resolution DOA Estimation Algorithm for a Single Acoustic Vector Sensor at Low SNR. *Zhang, J.*, +, *TSP 2020 6142-6158*
- Joint Source and Sensor Localization by Angles of Arrival. *Le, T.*, +, *TSP 2020 6521-6534*
- Linear Multiple Low-Rank Kernel Based Stationary Gaussian Processes Regression for Time Series. *Yin, F.*, +, *TSP 2020 5260-5275*
- Low-Complexity Methods for Estimation After Parameter Selection. *Harel, N.*, +, *TSP 2020 1152-1167*
- Measurement of Power Density at Zero Frequency With a Trend Compensation. *Kim, D.S.*, *TSP 2020 1964-1973*
- Multi-Carrier Agile Phased Array Radar. *Huang, T.*, +, *TSP 2020 5706-5721*
- Non-Parametric Decomposition of Pulse Pile-Up Under Gaussian Noise With Finite Data Sets. *McLean, C.*, +, *TSP 2020 2114-2127*
- Nonlinear Adaptive Filtering With Kernel Set-Membership Approach. *Chen, K.*, +, *TSP 2020 1515-1528*
- On the Inclusion and Utilization of Pilot Tones in Unique Word OFDM. *Hofbauer, C.*, +, *TSP 2020 5504-5518*
- Quadratic FM Signal Detection and Parameter Estimation Using Coherently Integrated Trilinear Autocorrelation Function. *Zhang, J.*, +, *TSP 2020 621-633*
- Radar Adaptive Detection Architectures for Heterogeneous Environments. *Liu, J.*, +, *TSP 2020 4307-4319*
- Resolving Range Ambiguity via Multiple-Input Multiple-Output Radar With Element-Pulse Coding. *Xu, J.*, +, *TSP 2020 2770-2783*
- Sparse Robust Learning From Flipped Bits. *Liu, Z.*, +, *TSP 2020 4407-4421*
- Variational Bayesian Estimation of Statistical Properties of Composite Gamma Log-Normal Distribution. *Turlapaty, A.C.*, *TSP 2020 6481-6492*
- Parameter space methods**
- Searching for Anomalies Over Composite Hypotheses. *Hemo, B.*, +, *TSP 2020 1181-1196*
- Parity check codes**
- Blind Recognition of Cyclic Codes Based on Average Cosine Conformity. *Wu, Z.*, +, *TSP 2020 2328-2339*
- Efficient QP-ADMM Decoder for Binary LDPC Codes and Its Performance Analysis. *Bai, J.*, +, *TSP 2020 503-518*
- Soft Symbol Decoding in Sweep-Spread-Carrier Underwater Acoustic Communications: A Novel Variational Bayesian Algorithm and Its Analysis. *Arunkumar, K.P.*, +, *TSP 2020 2435-2448*
- Particle filtering (numerical methods)**
- Direct Target Tracking by Distributed Gaussian Particle Filtering for Heterogeneous Networks. *Xia, W.*, +, *TSP 2020 1361-1373*
- Estimation of Dynamically Varying Support of Sparse Signals via Sequential Monte-Carlo Method. *Yoo, J.H.*, +, *TSP 2020 4135-4147*
- Multiple Bayesian Filtering as Message Passing. *Vitetta, G.M.*, +, *TSP 2020 1002-1020*
- Particle swarm optimization**
- Generalized Rational Variable Projection With Application in ECG Compression. *Kovacs, P.*, +, *TSP 2020 478-492*
- Passive radar**
- Joint Waveform and Receiver Design for Co-Channel Hybrid Active-Passive Sensing With Timing Uncertainty. *Wang, F.*, +, *TSP 2020 466-477*
- Localization in 2D PBR With Multiple Transmitters of Opportunity: A Constrained Least Squares Approach. *Aubry, A.*, +, *TSP 2020 634-646*
- Multi-Channel Factor Analysis With Common and Unique Factors. *Ramirez, D.*, +, *TSP 2020 113-126*
- Path planning**
- Online Trajectory Optimization Using Inexact Gradient Feedback for Time-Varying Environments. *Nutalapati, M.K.*, +, *TSP 2020 4824-4838*
- Pattern classification**
- A Large Dimensional Study of Regularized Discriminant Analysis. *Elkhalil, K.*, +, *TSP 2020 2464-2479*
- Comments on "Deep Neural Networks With Random Gaussian Weights: A Universal Classification Strategy?". *Gulcu, T.C.*, *TSP 2020 2401-2403*
- Corrections to "Deep Neural Networks With Random Gaussian Weights: A Universal Classification Strategy?" [Jul 1, 2016 3444-3457]. *Giryas, R.*, +, *TSP 2020 529-531*
- Learning to Bound the Multi-Class Bayes Error. *Sekeh, S.Y.*, +, *TSP 2020 3793-3807*
- Multilabel Classification With Multivariate Time Series Predictors. *Che, Y.*, +, *TSP 2020 5696-5705*
- Prospect Theory Based Crowdsourcing for Classification in the Presence of Spammers. *Geng, B.*, +, *TSP 2020 4083-4093*
- Pattern clustering**
- Computationally Efficient Distributed Multi-Sensor Fusion With Multi-Bernoulli Filter. *Yi, W.*, +, *TSP 2020 241-256*
- Directional Sparse Filtering for Blind Estimation of Under-Determined Complex-Valued Mixing Matrices. *Nguyen, A.H.T.*, +, *TSP 2020 1990-2003*
- Distributed Clustering Algorithm in Sensor Networks via Normalized Information Measures. *Qin, J.*, +, *TSP 2020 3266-3279*
- On Arithmetic Average Fusion and Its Application for Distributed Multi-Bernoulli Multitarget Tracking. *Li, T.*, +, *TSP 2020 2883-2896*
- Scalable and Robust Community Detection With Randomized Sketching. *Rahmani, M.*, +, *TSP 2020 962-977*
- Subspace Clustering Without Knowing the Number of Clusters: A Parameter Free Approach. *Menon, V.*, +, *TSP 2020 5047-5062*
- Unraveling the Veil of Subspace RIP Through Near-Isometry on Subspaces. *Xu, X.*, +, *TSP 2020 3117-3131*
- Pattern recognition**
- LDA via L1-PCA of Whitened Data. *Martin-Clemente, R.*, +, *TSP 2020 225-240*
- Multi-Pattern Recognition Through Maximization of Signal-to-Peak-Interference Ratio With Application to Neural Spike Sorting. *Wouters, J.*, +, *TSP 2020 6240-6254*
- Performance analysis**
- Distributed Compressive Sensing: Performance Analysis With Diverse Signal Ensembles. *Hsieh, S.*, +, *TSP 2020 3500-3514*
- Perturbation techniques**
- Graph Sampling for Matrix Completion Using Recurrent Gershgorin Disc Shift. *Wang, F.*, +, *TSP 2020 2814-2829*
- Graph Signal Processing in the Presence of Topology Uncertainties. *Ceci, E.*, +, *TSP 2020 1558-1573*
- Stabilization of a Modified LMS Algorithm for Canceling Nonlinear Memory Effects. *Xiao, Y.*, *TSP 2020 3439-3449*
- Perturbation theory**
- An Investigation and Solution of Angle Based Rigid Body Localization. *Wang, Y.*, +, *TSP 2020 5457-5472*
- Phase measurement**
- PhaseEqual: Convex Phase Retrieval via Alternating Direction Method of Multipliers. *Wang, B.*, +, *TSP 2020 1274-1285*
- Phase modulation**
- Random Phaseless Sampling for Causal Signals in Shift-Invariant Spaces: A Zero Distribution Perspective. *Li, Y.*, +, *TSP 2020 5473-5486*
- Phase noise**
- Joint Channel and Location Estimation of Massive MIMO System With Phase Noise. *Zheng, X.*, +, *TSP 2020 2598-2612*
- Performance of Analog Beamforming Systems With Optimized Phase Noise Compensation. *Ratnam, V.V.*, *TSP 2020 5334-5348*
- Phase shift keying**
- Phased-Array Transmission for Secure mmWave Wireless Communication via Polygon Construction. *Zhang, X.*, +, *TSP 2020 327-342*
- Phase shifters**
- Hybrid Beamforming for Active Sensing Using Sparse Arrays. *Rajamaki, R.*, +, *TSP 2020 6402-6417*
- Hybrid Transceivers Design for Large-Scale Antenna Arrays Using Majorization-Minimization Algorithms. *Arora, A.*, +, *TSP 2020 701-714*
- Two-Step Codeword Design for Millimeter Wave Massive MIMO Systems With Quantized Phase Shifters. *Chen, K.*, +, *TSP 2020 170-180*

**Phased array radar**

Efficient and Unambiguous Two-Target Resolution via Subarray-Based Four-Channel Monopulse. *Wang, S.L.*, +, *TSP 2020 885-900*

Frequency Diverse Array Radar: New Results and Discrete Fourier Transform Based Beampattern. *Zubair, M.*, +, *TSP 2020 2670-2681*

Joint Features Extraction for Multiple Moving Targets Using (Ultra-)Wideband FMCW Signals in the Presence of Doppler Ambiguity. *Xu, S.*, +, *TSP 2020 6562-6577*

MAJoRCom: A Dual-Function Radar Communication System Using Index Modulation. *Huang, T.*, +, *TSP 2020 3423-3438*

Multi-Carrier Agile Phased Array Radar. *Huang, T.*, +, *TSP 2020 5706-5721*  
Single-Pulse Simultaneous Target Detection and Angle Estimation in a Multichannel Phased Array Radar. *Aubry, A.*, +, *TSP 2020 6649-6664*

**Piecewise constant techniques**

Bilinear Compressed Sensing Under Known Signs via Convex Programming. *Aghasi, A.*, +, *TSP 2020 6366-6379*

Reconstructing Classes of Non-Bandlimited Signals From Time Encoded Information. *Alexandru, R.*, +, *TSP 2020 747-763*

**Piecewise linear techniques**

Deep Neural Networks With Trainable Activations and Controlled Lipschitz Constant. *Aziznejad, S.*, +, *TSP 2020 4688-4699*

**Polar codes**

A Node-Reliability Based CRC-Aided Successive Cancellation List Polar Decoder Architecture Combined With Post-Processing. *Lee, H.*, +, *TSP 2020 5954-5967*

Practical Dynamic SC-Flip Polar Decoders: Algorithm and Implementation. *Ercan, F.*, +, *TSP 2020 5441-5456*

**Polarization**

Quaternion Non-Negative Matrix Factorization: Definition, Uniqueness, and Algorithm. *Flamant, J.*, +, *TSP 2020 1870-1883*

**Poles and zeros**

Robust and Computationally Efficient Digital IIR Filter Synthesis and Stability Analysis Under Finite Precision Implementations. *Ko, H.*, +, *TSP 2020 1807-1822*

**Polynomial approximation**

A Metric on the Space of Finite Sets of Trajectories for Evaluation of Multi-Target Tracking Algorithms. *Garcia-Fernandez, A.F.*, +, *TSP 2020 3917-3928*

**Polynomial matrices**

Analysis of the SNR Loss Distribution With Covariance Mismatched Training Samples. *Besson, O.*, *TSP 2020 5759-5768*

Kinetic Euclidean Distance Matrices. *Tabaghi, P.*, +, *TSP 2020 452-465*

New OptimalZ-Complementary Code Sets Based on Generalized Paraunitary Matrices. *Das, S.*, +, *TSP 2020 5546-5558*

**Polynomials**

Algebraic Complete Solution for Joint Source and Sensor Localization Using Time of Flight Measurements. *Le, T.*, +, *TSP 2020 1853-1869*

Blind Recognition of Cyclic Codes Based on Average Cosine Conformity. *Wu, Z.*, +, *TSP 2020 2328-2339*

IIR Filtering on Graphs With Random Node-Asynchronous Updates. *Teke, O.*, +, *TSP 2020 3945-3960*

Localization of a Moving Source by Frequency Measurements. *Ahmed, M.M.*, +, *TSP 2020 4839-4854*

Orthogonal Periodic Sequences for the Identification of Functional Link Polynomial Filters. *Carini, A.*, +, *TSP 2020 5308-5321*

Reconstructing Classes of Non-Bandlimited Signals From Time Encoded Information. *Alexandru, R.*, +, *TSP 2020 747-763*

Sampling and Inference of Networked Dynamics Using Log-Koopman Non-linear Graph Fourier Transform. *Wei, Z.*, +, *TSP 2020 6187-6197*

Two-DimensionalZ-Complementary Array Code Sets Based on Matrices of Generating Polynomials. *Das, S.*, +, *TSP 2020 5519-5532*

**Power amplifiers**

Digital Predistortion for Multiuser Hybrid MIMO at mmWaves. *Brihuega, A.*, +, *TSP 2020 3603-3618*

**Power control**

A Globally Optimal Energy-Efficient Power Control Framework and Its Efficient Implementation in Wireless Interference Networks. *Matthiesen, B.*, +, *TSP 2020 3887-3902*

Joint Subcarrier and Power Allocation in NOMA: Optimal and Approximate Algorithms. *Salaun, L.*, +, *TSP 2020 2215-2230*

Multi-UAV Interference Coordination via Joint Trajectory and Power Control. *Shen, C.*, +, *TSP 2020 843-858*

**Precoding**

Blind Channel Estimation for Downlink Massive MIMO Systems With Imperfect Channel Reciprocity. *Chopra, R.*, +, *TSP 2020 3132-3145*

Decentralized Massive MIMO Processing Exploring Daisy-Chain Architecture and Recursive Algorithms. *Rodriguez Sanchez, J.*, +, *TSP 2020 687-700*

Digital Predistortion for Multiuser Hybrid MIMO at mmWaves. *Brihuega, A.*, +, *TSP 2020 3603-3618*

Hybrid Transceivers Design for Large-Scale Antenna Arrays Using Majorization-Minimization Algorithms. *Arora, A.*, +, *TSP 2020 701-714*

Intelligent Reflecting Surface Aided Multigroup Multicast MISO Communication Systems. *Zhou, G.*, +, *TSP 2020 3236-3251*

Majorization-Minimization Aided Hybrid Transceivers for MIMO Interference Channels. *Gong, S.*, +, *TSP 2020 4903-4918*

On the Max-Min Fairness of BeamSpace MIMO-NOMA. *Jiao, R.*, +, *TSP 2020 4919-4932*

Robust SINR-Constrained Symbol-Level Multiuser Precoding With Imperfect Channel Knowledge. *Haqiqatnejad, A.*, +, *TSP 2020 1837-1852*

Spectral Efficiency and Energy Efficiency Tradeoff in Massive MIMO Downlink Transmission With Statistical CSIT. *You, L.*, +, *TSP 2020 2645-2659*

Two-Step Codeword Design for Millimeter Wave Massive MIMO Systems With Quantized Phase Shifters. *Chen, K.*, +, *TSP 2020 170-180*

**Prediction theory**

One-Step Prediction for Discrete Time-Varying Nonlinear Systems With Unknown Inputs and Correlated Noises. *Abolhasani, M.*, +, *TSP 2020 808-817*

**Principal component analysis**

A Dictionary-Based Generalization of Robust PCA With Applications to Target Localization in Hyperspectral Imaging. *Rambhatla, S.*, +, *TSP 2020 1760-1775*

Best Pair Formulation & Accelerated Scheme for Non-Convex Principal Component Pursuit. *Dutta, A.*, +, *TSP 2020 6128-6141*

LDA via L1-PCA of Whitened Data. *Martin-Clemente, R.*, +, *TSP 2020 225-240*

Online Data Dimensionality Reduction and Reconstruction Using Graph Filtering. *Schizas, I.D.*, *TSP 2020 3871-3886*

**Probability**

A False Discovery Rate Oriented Approach to Parallel Sequential Change Detection Problems. *Chen, J.*, +, *TSP 2020 1823-1836*

A Framework of Robust Transmission Design for IRS-Aided MISO Communications With Imperfect Cascaded Channels. *Zhou, G.*, +, *TSP 2020 5092-5106*

A Generalized Version of ACE and Performance Analysis. *Raghavan, R.S.*, *TSP 2020 2574-2585*

A Large Dimensional Study of Regularized Discriminant Analysis. *Elkhalil, K.*, +, *TSP 2020 2464-2479*

Action-Manipulation Attacks Against Stochastic Bandits: Attacks and Defense. *Liu, G.*, +, *TSP 2020 5152-5165*

Algorithms for Change Detection With Sparse Signals. *Jain, A.*, +, *TSP 2020 1331-1345*

Bayesian Cooperative Localization Using Received Signal Strength With Unknown Path Loss Exponent: Message Passing Approaches. *Jin, D.*, +, *TSP 2020 1120-1135*

Bayesian Methods for Multiple Change-Point Detection With Reduced Communication. *Nitzan, E.*, +, *TSP 2020 4871-4886*

Bilinear Compressed Sensing Under Known Signs via Convex Programming. *Aghasi, A.*, +, *TSP 2020 6366-6379*

Change Detection in Complex Dynamical Systems Using Intrinsic Phase and Amplitude Synchronization. *Iqbal, A.S.*, +, *TSP 2020 4743-4756*

Comments on "Deep Neural Networks With Random Gaussian Weights: A Universal Classification Strategy?". *Gulcu, T.C.*, *TSP 2020 2401-2403*

Continuous-Discrete Multiple Target Filtering: PMBM, PHD and CPHD Filter Implementations. *Garcia-Fernandez, A.F.*, +, *TSP 2020 1300-1314*

Corrections to “Deep Neural Networks With Random Gaussian Weights: A Universal Classification Strategy?” [Jul 1, 2016 3444-3457]. *Giryas, R.*, +, *TSP 2020 529-531*

Deeply-Sparse Signal rePresentations (DS<sup>2</sup>P). *Ba, D.*, *TSP 2020 4727-4742*

Distributed Detection of Sparse Signals With Physical Layer Secrecy Constraints: A Falsified Censoring Strategy. *Li, C.*, +, *TSP 2020 6040-6054*

Distributed Multi-Sensor Fusion of PHD Filters With Different Sensor Fields of View. *Yi, W.*, +, *TSP 2020 5204-5218*

Distributed Sequential Detection: Dependent Observations and Imperfect Communication. *Zhang, S.*, +, *TSP 2020 830-842*

Dynamic Sensor Subset Selection for Centralized Tracking of an IID Process. *Chattopadhyay, A.*, +, *TSP 2020 3209-3224*

Efficient Estimation of Graph Signals With Adaptive Sampling. *Ahmedi, M.J.*, +, *TSP 2020 3808-3823*

Fast Optimization With Zeroth-Order Feedback in Distributed, Multi-User MIMO Systems. *Bilenne, O.*, +, *TSP 2020 6085-6100*

Greedy Algorithms for Sparse and Positive Signal Recovery Based on Bit-Wise MAP Detection. *Chae, J.*, +, *TSP 2020 4017-4029*

Iterative and Adjustable Soft List Decoding for Polar Codes. *Feng, B.*, +, *TSP 2020 5559-5572*

Learning Nonnegative Factors From Tensor Data: Probabilistic Modeling and Inference Algorithm. *Cheng, L.*, +, *TSP 2020 1792-1806*

Low-Complexity Methods for Estimation After Parameter Selection. *Harel, N.*, +, *TSP 2020 1152-1167*

Making Decisions by Unlabeled Bits. *Marano, S.*, +, *TSP 2020 2935-2947*

Massive MIMO Radar for Target Detection. *Fortunati, S.*, +, *TSP 2020 859-871*

Minimum Byzantine Effort for Blinding Distributed Detection in Wireless Sensor Networks. *Lin, H.*, +, *TSP 2020 647-661*

Multi-Class Random Matrix Filtering for Adaptive Learning. *Braca, P.*, +, *TSP 2020 359-373*

Nearly Optimal Adaptive Sequential Tests for Object Detection. *Tartakovsky, A.G.*, +, *TSP 2020 3371-3384*

NOMA-Aided UAV Communications over Correlated Rician Shadowed Fading Channels. *Ernest, T.Z.H.*, +, *TSP 2020 3103-3116*

On Arithmetic Average Fusion and Its Application for Distributed Multi-Bernoulli Multitarget Tracking. *Li, T.*, +, *TSP 2020 2883-2896*

On the Resolution Probability of Conditional and Unconditional Maximum Likelihood DoA Estimation. *Mestre, X.*, +, *TSP 2020 4656-4671*

Persymmetric Adaptive Detection of Distributed Targets With Unknown Steering Vectors. *Liu, J.*, +, *TSP 2020 4123-4134*

Prospect Theoretic Utility Based Human Decision Making in Multi-Agent Systems. *Geng, B.*, +, *TSP 2020 1091-1104*

Prospect Theory Based Crowdsourcing for Classification in the Presence of Spammers. *Geng, B.*, +, *TSP 2020 4083-4093*

Random Access Communication for Wireless Control Systems With Energy Harvesting Sensors. *Calvo-Fullana, M.*, +, *TSP 2020 3961-3975*

Random Phaseless Sampling for Causal Signals in Shift-Invariant Spaces: A Zero Distribution Perspective. *Li, Y.*, +, *TSP 2020 5473-5486*

Sparse Bayesian Learning With Dynamic Filtering for Inference of Time-Varying Sparse Signals. *O'Shaughnessy, M.R.*, +, *TSP 2020 388-403*

Sub-Nyquist Spectrum Sensing of Sparse Wideband Signals Using Low-Density Measurement Matrices. *Vasavada, Y.*, +, *TSP 2020 3723-3737*

Tracking Multiple Maneuvering Targets Hidden in the DBZ Based on the MM-GLMB Filter. *Wu, W.*, +, *TSP 2020 2912-2924*

Training Data Assisted Anomaly Detection of Multi-Pixel Targets In Hyperspectral Imagery. *Liu, J.*, +, *TSP 2020 3022-3032*

Variable Step-Size Widely Linear Complex-Valued Affine Projection Algorithm and Performance Analysis. *Shi, L.*, +, *TSP 2020 5940-5953*

#### Product codes

Practical Product Code Construction of Polar Codes. *Condo, C.*, +, *TSP 2020 2004-2014*

#### Production engineering computing

Defect Detection and Classification by Training a Generic Convolutional Neural Network Encoder. *Dong, X.*, +, *TSP 2020 6055-6069*

#### Proteins

Tensor Graph Convolutional Networks for Multi-Relational and Robust Learning. *Ioannidis, V.N.*, +, *TSP 2020 6535-6546*

#### Protocols

Asynchronous Blind Network-Assisted Diversity Multiple Access. *Akl, N.*, +, *TSP 2020 990-1001*

Consensus-Based Clock Synchronization in Wireless Sensor Networks With Truncated Exponential Delays. *Wang, H.*, +, *TSP 2020 1425-1438*

On Maintaining Linear Convergence of Distributed Learning and Optimization Under Limited Communication. *Magnusson, S.*, +, *TSP 2020 6101-6116*

#### Pulse amplitude modulation

Blind Channel Estimation for Downlink Massive MIMO Systems With Imperfect Channel Reciprocity. *Chopra, R.*, +, *TSP 2020 3132-3145*

## Q

#### Quadratic programming

Decentralized Multi-Agent Stochastic Optimization With Pairwise Constraints and Quantized Communications. *Cao, X.*, +, *TSP 2020 3296-3311*

Efficient QP-ADMM Decoder for Binary LDPC Codes and Its Performance Analysis. *Bai, J.*, +, *TSP 2020 503-518*

Nonsmooth Optimization Algorithms for Multicast Beamforming in Content-Centric Fog Radio Access Networks. *Nguyen, H.T.*, +, *TSP 2020 1455-1469*

Quadratic Matrix Inequality Approach to Robust Adaptive Beamforming for General-Rank Signal Model. *Huang, Y.*, +, *TSP 2020 2244-2255*

Quadratic Semidefinite Programming for Waveform-Constrained Joint Filter-Signal Design in STAP. *O'Rourke, S.M.*, +, *TSP 2020 1744-1759*

Single-Pulse Simultaneous Target Detection and Angle Estimation in a Multichannel Phased Array Radar. *Aubry, A.*, +, *TSP 2020 6649-6664*

Support Recovery for Sparse Signals With Unknown Non-Stationary Modulation. *Xie, Y.*, +, *TSP 2020 1884-1896*

#### Quadrature amplitude modulation

Blind Channel Estimation for Downlink Massive MIMO Systems With Imperfect Channel Reciprocity. *Chopra, R.*, +, *TSP 2020 3132-3145*

Energy- and Area-Efficient Recursive-Conjugate-Gradient-Based MMSE Detector for Massive MIMO Systems. *Liu, L.*, +, *TSP 2020 573-588*

Frame Repetition: A Solution to Imaginary Interference Cancellation in FBMC/OQAM Systems. *Kong, D.*, +, *TSP 2020 1259-1273*

#### Quality of service

Multi-Group Multicast Beamforming: Optimal Structure and Efficient Algorithms. *Dong, M.*, +, *TSP 2020 3738-3753*

Nonsmooth Optimization Algorithms for Multicast Beamforming in Content-Centric Fog Radio Access Networks. *Nguyen, H.T.*, +, *TSP 2020 1455-1469*

#### Quantization (signal)

Bayes-Optimal MMSE Detector for Massive MIMO Relaying With Low-Precision ADCs/DACs. *Yang, X.*, +, *TSP 2020 3341-3357*

Distributed Detection of Sparse Stochastic Signals With 1-Bit Data in Tree-Structured Sensor Networks. *Li, C.*, +, *TSP 2020 2963-2976*

Joint Channel and Location Estimation of Massive MIMO System With Phase Noise. *Zheng, X.*, +, *TSP 2020 2598-2612*

Learned Conjugate Gradient Descent Network for Massive MIMO Detection. *Wei, Y.*, +, *TSP 2020 6336-6349*

On Maintaining Linear Convergence of Distributed Learning and Optimization Under Limited Communication. *Magnusson, S.*, +, *TSP 2020 6101-6116*

Optimal Local Differentially Private Quantization. *Zhang, R.*, +, *TSP 2020 6509-6520*

#### Quantum communication

Algorithms for Change Detection With Sparse Signals. *Jain, A.*, +, *TSP 2020 1331-1345*

#### Queueing theory

Accelerated Structure-Aware Reinforcement Learning for Delay-Sensitive Energy Harvesting Wireless Sensors. *Sharma, N.*, +, *TSP 2020 1409-1424*

Asynchronous Blind Network-Assisted Diversity Multiple Access. *Akl, N.*, +, *TSP 2020 990-1001*

## R

#### Radar antennas

Doppler Shifting Technique for Generating Multi-Frames of Video SAR via Sub-Aperture Signal Processing. *Kim, C.K.*, +, *TSP 2020 3990-4001*

Frequency Diverse Array Radar: New Results and Discrete Fourier Transform Based Beampattern. *Zubair, M.*, +, *TSP 2020 2670-2681*

Localization in 2D PBR With Multiple Transmitters of Opportunity: A Constrained Least Squares Approach. *Aubry, A.*, +, *TSP 2020 634-646*

Massive MIMO Radar for Target Detection. *Fortunati, S.*, +, *TSP 2020 859-871*

Multi-Carrier Agile Phased Array Radar. *Huang, T.*, +, *TSP 2020 5706-5721*

Multi-Stage Antenna Selection for Adaptive Beamforming in MIMO Radar. *Nosrati, H.*, +, *TSP 2020 1374-1389*

Suboptimal Low Complexity Joint Multi-Target Detection and Localization for Non-Coherent MIMO Radar With Widely Separated Antennas. *Yi, W.*, +, *TSP 2020 901-916*

#### Radar clutter

CFAR Feature Plane: A Novel Framework for the Analysis and Design of Radar Detectors. *Coluccia, A.*, +, *TSP 2020 3903-3916*

Invariance Theory for Adaptive Detection in Non-Gaussian Clutter. *Tang, M.*, +, *TSP 2020 2045-2060*

Persymmetric Adaptive Detection of Distributed Targets With Unknown Steering Vectors. *Liu, J.*, +, *TSP 2020 4123-4134*

Rao-Based Detectors for Adaptive Target Detection in the Presence of Signal-Dependent Interference. *Ghojavand, K.*, +, *TSP 2020 1662-1672*

Robust Two-Stage Reduced-Dimension Sparsity-Aware STAP for Airborne Radar With Coprime Arrays. *Wang, X.*, +, *TSP 2020 81-96*

Target Detection With Imperfect Waveform Separation in Distributed MIMO Radar. *Wang, P.*, +, *TSP 2020 793-807*

#### Radar computing

Identifying Cognitive Radars - Inverse Reinforcement Learning Using Revealed Preferences. *Krishnamurthy, V.*, +, *TSP 2020 4529-4542*

Variational Temporal Deep Generative Model for Radar HRRP Target Recognition. *Guo, D.*, +, *TSP 2020 5795-5809*

#### Radar detection

A Generalized Version of ACE and Performance Analysis. *Raghavan, R.S.*, *TSP 2020 2574-2585*

CFAR Feature Plane: A Novel Framework for the Analysis and Design of Radar Detectors. *Coluccia, A.*, +, *TSP 2020 3903-3916*

Diffuse Multipath Exploitation for Adaptive Detection of Range Distributed Targets. *Rong, Y.*, +, *TSP 2020 1197-1212*

Invariance Theory for Adaptive Detection in Non-Gaussian Clutter. *Tang, M.*, +, *TSP 2020 2045-2060*

Massive MIMO Radar for Target Detection. *Fortunati, S.*, +, *TSP 2020 859-871*

Persymmetric Adaptive Detection of Distributed Targets With Unknown Steering Vectors. *Liu, J.*, +, *TSP 2020 4123-4134*

Radar Adaptive Detection Architectures for Heterogeneous Environments. *Liu, J.*, +, *TSP 2020 4307-4319*

Rao-Based Detectors for Adaptive Target Detection in the Presence of Signal-Dependent Interference. *Ghojavand, K.*, +, *TSP 2020 1662-1672*

Robust Two-Stage Reduced-Dimension Sparsity-Aware STAP for Airborne Radar With Coprime Arrays. *Wang, X.*, +, *TSP 2020 81-96*

Single-Pulse Simultaneous Target Detection and Angle Estimation in a Multichannel Phased Array Radar. *Aubry, A.*, +, *TSP 2020 6649-6664*

Suboptimal Low Complexity Joint Multi-Target Detection and Localization for Non-Coherent MIMO Radar With Widely Separated Antennas. *Yi, W.*, +, *TSP 2020 901-916*

Target Detection With Imperfect Waveform Separation in Distributed MIMO Radar. *Wang, P.*, +, *TSP 2020 793-807*

Tunable Adaptive Target Detection With Kernels in Colocated MIMO Radar. *Zaibashi, A.*, +, *TSP 2020 1500-1514*

#### Radar imaging

Efficient Attributed Scatter Center Extraction Based on Image-Domain Sparse Representation. *Yang, D.*, +, *TSP 2020 4368-4381*

#### Radar interference

Diffuse Multipath Exploitation for Adaptive Detection of Range Distributed Targets. *Rong, Y.*, +, *TSP 2020 1197-1212*

Joint Transmit Beamforming for Multiuser MIMO Communications and MIMO Radar. *Liu, X.*, +, *TSP 2020 3929-3944*

Radar Adaptive Detection Architectures for Heterogeneous Environments. *Liu, J.*, +, *TSP 2020 4307-4319*

#### Radar receivers

Joint Range and Velocity Estimation With Intrapulse and Intersubcarrier Doppler Effects for OFDM-Based RadCom Systems. *Zhang, F.*, +, *TSP 2020 662-675*

Multi-Carrier Agile Phased Array Radar. *Huang, T.*, +, *TSP 2020 5706-5721*

Persymmetric Adaptive Detection of Distributed Targets With Unknown Steering Vectors. *Liu, J.*, +, *TSP 2020 4123-4134*

#### Radar resolution

Joint Features Extraction for Multiple Moving Targets Using (Ultra-)Wideband FMCW Signals in the Presence of Doppler Ambiguity. *Xu, S.*, +, *TSP 2020 6562-6577*

Variational Temporal Deep Generative Model for Radar HRRP Target Recognition. *Guo, D.*, +, *TSP 2020 5795-5809*

#### Radar signal processing

Adaptive Virtual Waveform Design for Millimeter-Wave Joint Communication-Radar. *Kumari, P.*, +, *TSP 2020 715-730*

Doppler Shifting Technique for Generating Multi-Frames of Video SAR via Sub-Aperture Signal Processing. *Kim, C.K.*, +, *TSP 2020 3990-4001*

Efficient and Unambiguous Two-Target Resolution via Subarray-Based Four-Channel Monopulse. *Wang, S.L.*, +, *TSP 2020 885-900*

Frequency Diverse Array Radar: New Results and Discrete Fourier Transform Based Beampattern. *Zubair, M.*, +, *TSP 2020 2670-2681*

Gridless Parameter Estimation for One-Bit MIMO Radar With Time-Varying Thresholds. *Xi, F.*, +, *TSP 2020 1048-1063*

Joint Features Extraction for Multiple Moving Targets Using (Ultra-)Wideband FMCW Signals in the Presence of Doppler Ambiguity. *Xu, S.*, +, *TSP 2020 6562-6577*

Joint Transmit Beamforming for Multiuser MIMO Communications and MIMO Radar. *Liu, X.*, +, *TSP 2020 3929-3944*

Joint Waveform and Receiver Design for Co-Channel Hybrid Active-Passive Sensing With Timing Uncertainty. *Wang, F.*, +, *TSP 2020 466-477*

Localization of a Moving Source by Frequency Measurements. *Ahmed, M.M.*, +, *TSP 2020 4839-4854*

MAJoRCom: A Dual-Function Radar Communication System Using Index Modulation. *Huang, T.*, +, *TSP 2020 3423-3438*

Multi-Class Random Matrix Filtering for Adaptive Learning. *Braca, P.*, +, *TSP 2020 359-373*

Multipath Suppression for Continuous Wave Radar via Slepian Sequences. *Day, B.P.*, +, *TSP 2020 548-557*

On the Design of Multi-Spectrally Constrained Constant Modulus Radar Signals. *Aubry, A.*, +, *TSP 2020 2231-2243*

Persymmetric Adaptive Detection of Distributed Targets With Unknown Steering Vectors. *Liu, J.*, +, *TSP 2020 4123-4134*

Polyphase Waveform Design for MIMO Radar Space Time Adaptive Processing. *Tang, B.*, +, *TSP 2020 2143-2154*

Quadratic Semidefinite Programming for Waveform-Constrained Joint Filter-Signal Design in STAP. *O'Rourke, S.M.*, +, *TSP 2020 1744-1759*

Rao-Based Detectors for Adaptive Target Detection in the Presence of Signal-Dependent Interference. *Ghojavand, K.*, +, *TSP 2020 1662-1672*

Resolving Range Ambiguity via Multiple-Input Multiple-Output Radar With Element-Pulse Coding. *Xu, J.*, +, *TSP 2020 2770-2783*

Robust Adaptive Beamforming Based on Linearly Modified Atomic-Norm Minimization With Target Contaminated Data. *Zhang, X.*, +, *TSP 2020 5138-5151*

Tunable Adaptive Target Detection With Kernels in Colocated MIMO Radar. *Zaibashi, A.*, +, *TSP 2020 1500-1514*

#### Radar target recognition

Variational Temporal Deep Generative Model for Radar HRRP Target Recognition. *Guo, D.*, +, *TSP 2020 5795-5809*

#### Radar theory

Diffuse Multipath Exploitation for Adaptive Detection of Range Distributed Targets. *Rong, Y.*, +, *TSP 2020 1197-1212*

Multipath Suppression for Continuous Wave Radar via Slepian Sequences. *Day, B.P.*, +, *TSP 2020 548-557*

#### Radar tracking

Efficient and Unambiguous Two-Target Resolution via Subarray-Based Four-Channel Monopulse. *Wang, S.L.*, +, *TSP 2020 885-900*



- Joint Waveform and Receiver Design for Co-Channel Hybrid Active-Passive Sensing With Timing Uncertainty. *Wang, F.*, +, *TSP 2020 466-477*
- Optimal Resource Allocation for Asynchronous Multiple Targets Tracking in Heterogeneous Radar Networks. *Yan, J.*, +, *TSP 2020 4055-4068*
- Resource Scheduling for Distributed Multi-Target Tracking in Netted Colocated MIMO Radar Systems. *Yi, W.*, +, *TSP 2020 1602-1617*

#### **Radar transmitters**

- Joint Waveform and Receiver Design for Co-Channel Hybrid Active-Passive Sensing With Timing Uncertainty. *Wang, F.*, +, *TSP 2020 466-477*
- Localization in 2D PBR With Multiple Transmitters of Opportunity: A Constrained Least Squares Approach. *Aubry, A.*, +, *TSP 2020 634-646*
- Multi-Carrier Agile Phased Array Radar. *Huang, T.*, +, *TSP 2020 5706-5721*

#### **Radial basis function networks**

- Fast Adaptive Gradient RBF Networks For Online Learning of Nonstationary Time Series. *Liu, T.*, +, *TSP 2020 2015-2030*

#### **Radio access networks**

- Nonsmooth Optimization Algorithms for Multicast Beamforming in Content-Centric Fog Radio Access Networks. *Nguyen, H.T.*, +, *TSP 2020 1455-1469*
- Robust Cell-Load Learning With a Small Sample Set. *Awan, D.A.*, +, *TSP 2020 270-283*

#### **Radio astronomy**

- Radio Transient Detection in Radio Astronomical Arrays. *Antman, A.*, +, *TSP 2020 5648-5663*

#### **Radio links**

- Decentralized Massive MIMO Processing Exploring Daisy-Chain Architecture and Recursive Algorithms. *Rodriguez Sanchez, J.*, +, *TSP 2020 687-700*

#### **Radio networks**

- Cooperative Activity Detection: Sourced and Unsourced Massive Random Access Paradigms. *Shao, X.*, +, *TSP 2020 6578-6593*
- Joint Subcarrier and Power Allocation in NOMA: Optimal and Approximate Algorithms. *Salaun, L.*, +, *TSP 2020 2215-2230*
- Machine Learning at the Wireless Edge: Distributed Stochastic Gradient Descent Over-the-Air. *Mohammadi Amiri, M.*, +, *TSP 2020 2155-2169*
- Model-Free Learning of Optimal Ergodic Policies in Wireless Systems. *Kalogerias, D.S.*, +, *TSP 2020 6272-6286*
- Multi-UAV Interference Coordination via Joint Trajectory and Power Control. *Shen, C.*, +, *TSP 2020 843-858*
- On Maintaining Linear Convergence of Distributed Learning and Optimization Under Limited Communication. *Magnusson, S.*, +, *TSP 2020 6101-6116*
- Phased-Array Transmission for Secure mmWave Wireless Communication via Polygon Construction. *Zhang, X.*, +, *TSP 2020 327-342*

#### **Radio receivers**

- Blind Channel Estimation for Downlink Massive MIMO Systems With Imperfect Channel Reciprocity. *Chopra, R.*, +, *TSP 2020 3132-3145*
- Exploring Positive Noise in Estimation Theory. *Radnosrati, K.*, +, *TSP 2020 3590-3602*
- Multistatic Moving Object Localization by a Moving Transmitter of Unknown Location and Offset. *Zhang, Y.*, +, *TSP 2020 4438-4453*
- NOMA-Aided UAV Communications over Correlated Rician Shadowed Fading Channels. *Ernest, T.Z.H.*, +, *TSP 2020 3103-3116*
- On the Performance of Splitting Receiver With Joint Coherent and Non-Coherent Processing. *Wang, Y.*, +, *TSP 2020 917-930*
- Phased-Array Transmission for Secure mmWave Wireless Communication via Polygon Construction. *Zhang, X.*, +, *TSP 2020 327-342*
- Robust Beamforming for NOMA-Based Cellular Massive IoT With SWIPT. *Qi, Q.*, +, *TSP 2020 211-224*
- Soft Symbol Decoding in Sweep-Spread-Carrier Underwater Acoustic Communications: A Novel Variational Bayesian Algorithm and Its Analysis. *Arunkumar, K.P.*, +, *TSP 2020 2435-2448*
- Tune Smarter Not Harder: A Principled Approach to Tuning Learning Rates for Shallow Nets. *Tholeti, T.*, +, *TSP 2020 5063-5078*

#### **Radio spectrum management**

- Joint Design of Surveillance Radar and MIMO Communication in Cluttered Environments. *Grossi, E.*, +, *TSP 2020 1544-1557*
- Joint Transmit Beamforming for Multiuser MIMO Communications and MIMO Radar. *Liu, X.*, +, *TSP 2020 3929-3944*

- NOMA-Aided UAV Communications over Correlated Rician Shadowed Fading Channels. *Ernest, T.Z.H.*, +, *TSP 2020 3103-3116*
- Performance of Analog Beamforming Systems With Optimized Phase Noise Compensation. *Ratnam, V.V.*, *TSP 2020 5334-5348*

#### **Radio transceivers**

- A Framework of Robust Transmission Design for IRS-Aided MISO Communications With Imperfect Cascaded Channels. *Zhou, G.*, +, *TSP 2020 5092-5106*
- Aperture-Level Simultaneous Transmit and Receive With Digital Phased Arrays. *Cummings, I.T.*, +, *TSP 2020 1243-1258*
- Bayes-Optimal MMSE Detector for Massive MIMO Relaying With Low-Precision ADCs/DACs. *Yang, X.*, +, *TSP 2020 3341-3357*
- Hybrid Transceivers Design for Large-Scale Antenna Arrays Using Majorization-Minimization Algorithms. *Arora, A.*, +, *TSP 2020 701-714*
- Majorization-Minimization Aided Hybrid Transceivers for MIMO Interference Channels. *Gong, S.*, +, *TSP 2020 4903-4918*
- Performance of Analog Beamforming Systems With Optimized Phase Noise Compensation. *Ratnam, V.V.*, *TSP 2020 5334-5348*
- Robust Transceiver Design for AF Asymmetric Two-Way MIMO Relaying. *Pradhan, H.*, +, *TSP 2020 5488-5503*

#### **Radio transmitters**

- Multistatic Moving Object Localization by a Moving Transmitter of Unknown Location and Offset. *Zhang, Y.*, +, *TSP 2020 4438-4453*

#### **Radio communication**

- A Globally Optimal Energy-Efficient Power Control Framework and Its Efficient Implementation in Wireless Interference Networks. *Mathiesen, B.*, +, *TSP 2020 3887-3902*
- Lattice Reduction Over Imaginary Quadratic Fields. *Lyu, S.*, +, *TSP 2020 6380-6393*
- Optimal Wireless Resource Allocation With Random Edge Graph Neural Networks. *Eisen, M.*, +, *TSP 2020 2977-2991*

#### **Radiofrequency filters**

- MIMO Radar Waveform Design in the Presence of Multiple Targets and Practical Constraints. *Yu, X.*, +, *TSP 2020 1974-1989*

#### **Radiofrequency imaging**

- A Variational Bayes Approach to Adaptive Radio Tomography. *Lee, D.*, +, *TSP 2020 3779-3792*

#### **Radiofrequency interference**

- A Framework of Robust Transmission Design for IRS-Aided MISO Communications With Imperfect Cascaded Channels. *Zhou, G.*, +, *TSP 2020 5092-5106*
- A Spatial-Temporal Subspace-Based Compressive Channel Estimation Technique in Unknown Interference MIMO Channels. *Takano, Y.*, +, *TSP 2020 300-313*
- A Tensor-Based Approach to Joint Channel Estimation/Data Detection in Flexible Multicarrier MIMO Systems. *Kofidis, E.*, *TSP 2020 3179-3193*
- A Variational Bayes Approach to Adaptive Radio Tomography. *Lee, D.*, +, *TSP 2020 3779-3792*
- Algorithms for Globally-Optimal Secure Signaling Over Gaussian MIMO Wiretap Channels Under Interference Constraints. *Dong, L.*, +, *TSP 2020 4513-4528*
- Joint Subcarrier and Power Allocation in NOMA: Optimal and Approximate Algorithms. *Salaun, L.*, +, *TSP 2020 2215-2230*
- MIMO Radar Waveform Design in the Presence of Multiple Targets and Practical Constraints. *Yu, X.*, +, *TSP 2020 1974-1989*
- Multi-UAV Interference Coordination via Joint Trajectory and Power Control. *Shen, C.*, +, *TSP 2020 843-858*
- On the Max-Min Fairness of BeamSpace MIMO-NOMA. *Jiao, R.*, +, *TSP 2020 4919-4932*
- Robust SINR-Constrained Symbol-Level Multiuser Precoding With Imperfect Channel Knowledge. *Haqiqatnejad, A.*, +, *TSP 2020 1837-1852*
- Two-User SIMO Interference Channel With Treating Interference as Noise: Improper Signaling Versus Time-Sharing. *Hellings, C.*, +, *TSP 2020 6467-6480*
- Radiofrequency power transmission**
- Robust Beamforming for NOMA-Based Cellular Massive IoT With SWIPT. *Qi, Q.*, +, *TSP 2020 211-224*

**Radiowave propagation**

Intelligent Reflecting Surface Aided Multigroup Multicast MISO Communication Systems. *Zhou, G.*, +, *TSP 2020 3236-3251*

**Random noise**

Differential Private Noise Adding Mechanism and Its Application on Consensus Algorithm. *He, J.*, +, *TSP 2020 4069-4082*

**Random processes**

A Closed-Form Prediction Update for Extended Target Tracking Using Random Matrices. *Bartlett, N.J.*, +, *TSP 2020 2404-2418*

A Grant-Free Method for Massive Machine-Type Communication With Backward Activity Level Estimation. *Xiao, H.*, +, *TSP 2020 6665-6680*

A Large Dimensional Study of Regularized Discriminant Analysis. *Elkhalil, K.*, +, *TSP 2020 2464-2479*

Bilinear Compressed Sensing Under Known Signs via Convex Programming. *Aghasi, A.*, +, *TSP 2020 6366-6379*

Binary Sequence Set Design for Interferer Rejection in Multi-Branch Modulation. *Mo, D.*, +, *TSP 2020 3769-3778*

Comments on “Deep Neural Networks With Random Gaussian Weights: A Universal Classification Strategy?”. *Gulcu, T.C.*, *TSP 2020 2401-2403*

Corrections to “Deep Neural Networks With Random Gaussian Weights: A Universal Classification Strategy?” [Jul 1, 2016 3444-3457]. *Giryas, R.*, +, *TSP 2020 529-531*

Data-Driven Structured Noise Filtering via Common Dynamics Estimation. *Markovsky, I.*, +, *TSP 2020 3064-3073*

Extended Object Tracking Using Random Matrix With Skewness. *Zhang, L.*, +, *TSP 2020 5107-5121*

High-Dimensional Nonconvex Stochastic Optimization by Doubly Stochastic Successive Convex Approximation. *Mokhtari, A.*, +, *TSP 2020 6287-6302*

IIR Filtering on Graphs With Random Node-Asynchronous Updates. *Teke, O.*, +, *TSP 2020 3945-3960*

Lower Bound for RIP Constants and Concentration of Sum of Top Order Statistics. *Li, G.*, +, *TSP 2020 3169-3178*

On the Resolution Probability of Conditional and Unconditional Maximum Likelihood DoA Estimation. *Mestre, X.*, +, *TSP 2020 4656-4671*

On the Sample Complexity of Graphical Model Selection From Non-Stationary Samples. *Tran, N.*, +, *TSP 2020 17-32*

Optimal Wireless Resource Allocation With Random Edge Graph Neural Networks. *Eisen, M.*, +, *TSP 2020 2977-2991*

Scalable and Robust Community Detection With Randomized Sketching. *Rahmani, M.*, +, *TSP 2020 962-977*

Sensing Matrix Design and Sparse Recovery on the Sphere and the Rotation Group. *Bangun, A.*, +, *TSP 2020 1439-1454*

Stochastic Analysis of the Recursive Least Squares Algorithm for Cyclostationary Colored Inputs. *Eweda, E.*, +, *TSP 2020 676-686*

Unraveling the Veil of Subspace RIP Through Near-Isometry on Subspaces. *Xu, X.*, +, *TSP 2020 3117-3131*

Variance-Reduced Stochastic Learning Under Random Reshuffling. *Ying, B.*, +, *TSP 2020 1390-1408*

Walkman: A Communication-Efficient Random-Walk Algorithm for Decentralized Optimization. *Mao, X.*, +, *TSP 2020 2513-2528*

Wavelet Based Multivariate Signal Denoising Using Mahalanobis Distance and EDF Statistics. *Naveed, K.*, +, *TSP 2020 5997-6010*

**Rational functions**

Generalized Rational Variable Projection With Application in ECG Compression. *Kovacs, P.*, +, *TSP 2020 478-492*

**Rayleigh channels**

Majorization-Minimization Aided Hybrid Transceivers for MIMO Interference Channels. *Gong, S.*, +, *TSP 2020 4903-4918*

Power Allocation Schemes for Uplink Massive MIMO System in the Presence of Imperfect CSI. *Yu, X.*, +, *TSP 2020 5968-5982*

**Receiving antennas**

Localization in 2D PBR With Multiple Transmitters of Opportunity: A Constrained Least Squares Approach. *Aubry, A.*, +, *TSP 2020 634-646*

Massive MIMO Radar for Target Detection. *Fortunati, S.*, +, *TSP 2020 859-871*

Multi-Stage Antenna Selection for Adaptive Beamforming in MIMO Radar. *Nosrati, H.*, +, *TSP 2020 1374-1389*

**Recurrent neural networks**

Gated Graph Recurrent Neural Networks. *Ruiz, L.*, +, *TSP 2020 6303-6318*

**Recursive estimation**

Double-Talk Robust Multichannel Acoustic Echo Cancellation Using Least-Squares MIMO Adaptive Filtering: Transversal, Array, and Lattice Forms. *Malik, S.*, +, *TSP 2020 4887-4902*

Extended Object Tracking Using Random Matrix With Skewness. *Zhang, L.*, +, *TSP 2020 5107-5121*

**Regression analysis**

A Simple Derivation of AMP and its State Evolution via First-Order Cancellation. *Schniter, P.*, *TSP 2020 4283-4292*

Analyzing Upper Bounds on Mean Absolute Errors for Deep Neural Network-Based Vector-to-Vector Regression. *Qi, J.*, +, *TSP 2020 3411-3422*

Bayesian Spatial Field Reconstruction With Unknown Distortions in Sensor Networks. *Xiang, Q.*, +, *TSP 2020 4336-4351*

High-Dimensional Nonconvex Stochastic Optimization by Doubly Stochastic Successive Convex Approximation. *Mokhtari, A.*, +, *TSP 2020 6287-6302*

Improved Most Likely Heteroscedastic Gaussian Process Regression via Bayesian Residual Moment Estimator. *Zhang, Q.*, +, *TSP 2020 3450-3460*

Learning Deep Analysis Dictionaries for Image Super-Resolution. *Huang, J.*, +, *TSP 2020 6633-6648*

Linear Multiple Low-Rank Kernel Based Stationary Gaussian Processes Regression for Time Series. *Yin, F.*, +, *TSP 2020 5260-5275*

Risk Convergence of Centered Kernel Ridge Regression With Large Dimensional Data. *Elkhalil, K.*, +, *TSP 2020 1574-1588*

Robust Semiparametric Efficient Estimators in Complex Elliptically Symmetric Distributions. *Fortunati, S.*, +, *TSP 2020 5003-5015*

Sparse Robust Learning From Flipped Bits. *Liu, Z.*, +, *TSP 2020 4407-4421*

**Relaxation theory**

Binary Sequence Set Design for Interferer Rejection in Multi-Branch Modulation. *Mo, D.*, +, *TSP 2020 3769-3778*

Quadratic Matrix Inequality Approach to Robust Adaptive Beamforming for General-Rank Signal Model. *Huang, Y.*, +, *TSP 2020 2244-2255*

**Relay networks (telecommunication)**

Penalty Dual Decomposition Method for Nonsmooth Nonconvex Optimization—Part II: Applications. *Shi, Q.*, +, *TSP 2020 4242-4257*

Robust Transceiver Design for AF Asymmetric Two-Way MIMO Relaying. *Pradhan, H.*, +, *TSP 2020 5488-5503*

**Remote sensing**

Hybrid Inexact BCD for Coupled Structured Matrix Factorization in Hyperspectral Super-Resolution. *Wu, R.*, +, *TSP 2020 1728-1743*

**Remotely operated vehicles**

Online Trajectory Optimization Using Inexact Gradient Feedback for Time-Varying Environments. *Nutalapati, M.K.*, +, *TSP 2020 4824-4838*

**Resource allocation**

A Globally Optimal Energy-Efficient Power Control Framework and Its Efficient Implementation in Wireless Interference Networks. *Matthiesen, B.*, +, *TSP 2020 3887-3902*

Blind Interference Alignment With ISI: A New Look at OFDM for K-User Interference Channels. *Lee, B.*, +, *TSP 2020 4497-4512*

Distributed Dual Gradient Tracking for Resource Allocation in Unbalanced Networks. *Zhang, J.*, +, *TSP 2020 2186-2198*

Energy-Optimal Multiple Access Computation Offloading: Signalling Structure and Efficient Communication Resource Allocation. *Salmani, M.*, +, *TSP 2020 1646-1661*

Joint Subcarrier and Power Allocation in NOMA: Optimal and Approximate Algorithms. *Salaun, L.*, +, *TSP 2020 2215-2230*

Model-Free Learning of Optimal Ergodic Policies in Wireless Systems. *Kalogerias, D.S.*, +, *TSP 2020 6272-6286*

Optimal Resource Allocation for Asynchronous Multiple Targets Tracking in Heterogeneous Radar Networks. *Yan, J.*, +, *TSP 2020 4055-4068*

Optimal Wireless Resource Allocation With Random Edge Graph Neural Networks. *Eisen, M.*, +, *TSP 2020 2977-2991*

Power Allocation Schemes for Uplink Massive MIMO System in the Presence of Imperfect CSI. *Yu, X.*, +, *TSP 2020 5968-5982*

Resource Scheduling for Distributed Multi-Target Tracking in Netted Collocated MIMO Radar Systems. *Yi, W.*, +, *TSP 2020 1602-1617*

Robust Beamforming for NOMA-Based Cellular Massive IoT With SWIPT. *Qi, Q.*, +, *TSP 2020 211-224*

**Reverse engineering**

Efficient Generalized Boundary Detection Using a Sliding Information Distance. *Field, R.*, +, *TSP 2020 6394-6401*

**Riccati equations**

Identifying Cognitive Radars - Inverse Reinforcement Learning Using Revealed Preferences. *Krishnamurthy, V.*, +, *TSP 2020 4529-4542*

**Rician channels**

Large Intelligent Surface Aided Physical Layer Security Transmission. *Feng, B.*, +, *TSP 2020 5276-5291*

NOMA-Aided UAV Communications over Correlated Rician Shadowed Fading Channels. *Ernest, T.Z.H.*, +, *TSP 2020 3103-3116*

**Rigidity**

An Investigation and Solution of Angle Based Rigid Body Localization. *Wang, Y.*, +, *TSP 2020 5457-5472*

**Robot vision**

High-Dimensional Nonconvex Stochastic Optimization by Doubly Stochastic Successive Convex Approximation. *Mokhtari, A.*, +, *TSP 2020 6287-6302*

**RSSI**

Parametric Sparse Bayesian Dictionary Learning for Multiple Sources Localization With Propagation Parameters Uncertainty. *You, K.*, +, *TSP 2020 4194-4209*

**S****S-matrix theory**

Robust Semiparametric Efficient Estimators in Complex Elliptically Symmetric Distributions. *Fortunati, S.*, +, *TSP 2020 5003-5015*

**Sampling methods**

Bayesian Cooperative Localization Using Received Signal Strength With Unknown Path Loss Exponent: Message Passing Approaches. *Jin, D.*, +, *TSP 2020 1120-1135*

Deterministic Completion of Rectangular Matrices Using Asymmetric Ramanujan Graphs: Exact and Stable Recovery. *Burnwal, S.P.*, +, *TSP 2020 3834-3848*

Scalable and Robust Community Detection With Randomized Sketching. *Rahmani, M.*, +, *TSP 2020 962-977*

**Satellite antennas**

Spatial GNSS Spoofing Against Drone Swarms With Multiple Antennas and Wiener Filter. *Ceccato, M.*, +, *TSP 2020 5782-5794*

**Satellite communication**

An Interference-Tolerant Algorithm for Wide-Band Moving Source Passive Localization. *Napolitano, A.*, *TSP 2020 3471-3485*

**Satellite navigation**

Exploring Positive Noise in Estimation Theory. *Radnosrati, K.*, +, *TSP 2020 3590-3602*

Precise 3-D GNSS Attitude Determination Based on Riemannian Manifold Optimization Algorithms. *Douik, A.*, +, *TSP 2020 284-299*

Spatial GNSS Spoofing Against Drone Swarms With Multiple Antennas and Wiener Filter. *Ceccato, M.*, +, *TSP 2020 5782-5794*

**Search problems**

A Generalized Accelerated Composite Gradient Method: Uniting Nesterov's Fast Gradient Method and FISTA. *Florea, M.I.*, +, *TSP 2020 3033-3048*

Continuous-Domain Signal Reconstruction Using  $L_p$ -Norm Regularization. *Bohra, P.*, +, *TSP 2020 4543-4554*

Fast Graph Sampling Set Selection Using Gershgorin Disc Alignment. *Bai, Y.*, +, *TSP 2020 2419-2434*

Inexact Block Coordinate Descent Algorithms for Nonsmooth Nonconvex Optimization. *Yang, Y.*, +, *TSP 2020 947-961*

Low-Complexity Methods for Estimation After Parameter Selection. *Harel, N.*, +, *TSP 2020 1152-1167*

Model-Free Learning of Optimal Ergodic Policies in Wireless Systems. *Kalogerias, D.S.*, +, *TSP 2020 6272-6286*

On the Convergence of a Bayesian Algorithm for Joint Dictionary Learning and Sparse Recovery. *Joseph, G.*, +, *TSP 2020 343-358*

Power Allocation Schemes for Uplink Massive MIMO System in the Presence of Imperfect CSI. *Yu, X.*, +, *TSP 2020 5968-5982*

Searching for Anomalies Over Composite Hypotheses. *Hemo, B.*, +, *TSP 2020 1181-1196*

Tune Smarter Not Harder: A Principled Approach to Tuning Learning Rates for Shallow Nets. *Tholeti, T.*, +, *TSP 2020 5063-5078*

Two-Step Codeword Design for Millimeter Wave Massive MIMO Systems With Quantized Phase Shifters. *Chen, K.*, +, *TSP 2020 170-180*

**Search radar**

Joint Design of Surveillance Radar and MIMO Communication in Cluttered Environments. *Grossi, E.*, +, *TSP 2020 1544-1557*

**Security of data**

Federated Variance-Reduced Stochastic Gradient Descent With Robustness to Byzantine Attacks. *Wu, Z.*, +, *TSP 2020 4583-4596*

Prospect Theory Based Crowdsourcing for Classification in the Presence of Spammers. *Geng, B.*, +, *TSP 2020 4083-4093*

Searching for Anomalies Over Composite Hypotheses. *Hemo, B.*, +, *TSP 2020 1181-1196*

Security-Enhanced Filter Design for Stochastic Systems under Malignicious Attack via Smoothed Signal Model and Multiobjective Estimation Method. *Chen, B.*, +, *TSP 2020 4971-4986*

**Sensitivity analysis**

Robust and Computationally Efficient Digital IIR Filter Synthesis and Stability Analysis Under Finite Precision Implementations. *Ko, H.*, +, *TSP 2020 1807-1822*

Target Detection With Imperfect Waveform Separation in Distributed MIMO Radar. *Wang, P.*, +, *TSP 2020 793-807*

**Sensor arrays**

Asymptotically Optimal Blind Calibration of Uniform Linear Sensor Arrays for Narrowband Gaussian Signals. *Weiss, A.*, +, *TSP 2020 5322-5333*

Group Sparsity Based Localization for Far-Field and Near-Field Sources Based on Distributed Sensor Array Networks. *Shen, Q.*, +, *TSP 2020 6493-6508*

Hybrid Beamforming for Active Sensing Using Sparse Arrays. *Rajamaki, R.*, +, *TSP 2020 6402-6417*

Sparse Array Design via Fractal Geometries. *Cohen, R.*, +, *TSP 2020 4797-4812*

**Sensor fusion**

A Closed-Form Estimator for Bearings-Only Fusion of Heterogeneous Passive Sensors. *Arulampalam, S.*, +, *TSP 2020 6681-6695*

Bayesian Methods for Multiple Change-Point Detection With Reduced Communication. *Nitzan, E.*, +, *TSP 2020 4871-4886*

Blind Over-the-Air Computation and Data Fusion via Provable Wirtinger Flow. *Dong, J.*, +, *TSP 2020 1136-1151*

Distributed Detection of Sparse Signals With Physical Layer Secrecy Constraints: A Falsified Censoring Strategy. *Li, C.*, +, *TSP 2020 6040-6054*

Distributed Detection of Sparse Stochastic Signals With 1-Bit Data in Tree-Structured Sensor Networks. *Li, C.*, +, *TSP 2020 2963-2976*

Distributed Multi-Sensor Fusion of PHD Filters With Different Sensor Fields of View. *Yi, W.*, +, *TSP 2020 5204-5218*

Distributed Optimal Linear Fusion Predictors and Filters for Systems With Random Parameter Matrices and Correlated Noises. *Sun, S.*, *TSP 2020 1064-1074*

Distributed Sensing With Orthogonal Multiple Access: To Code or not to Code?. *Dong, Y.*, *TSP 2020 1315-1330*

Distributed Sequential Detection: Dependent Observations and Imperfect Communication. *Zhang, S.*, +, *TSP 2020 830-842*

Fusion of Labeled RFS Densities With Minimum Information Loss. *Gao, L.*, +, *TSP 2020 5855-5868*

Localization of a Moving Object With Sensors in Motion by Time Delays and Doppler Shifts. *Jia, T.*, +, *TSP 2020 5824-5841*

Minimum Byzantine Effort for Blinding Distributed Detection in Wireless Sensor Networks. *Lin, H.*, +, *TSP 2020 647-661*

MM-GLMB Filter-Based Sensor Control for Tracking Multiple Maneuvering Targets Hidden in the Doppler Blind Zone. *Wu, W.*, +, *TSP 2020 4555-4567*

On Arithmetic Average Fusion and Its Application for Distributed Multi-Bernoulli Multitarget Tracking. *Li, T.*, +, *TSP 2020 2883-2896*

Optimal Sequential Estimation for Asynchronous Sampling Discrete-Time Systems. *Lin, H.*, +, *TSP 2020 6117-6127*

Sparse Robust Learning From Flipped Bits. *Liu, Z.*, +, *TSP 2020 4407-4421*

**Sensor placement**

- 3-D Distributed Localization With Mixed Local Relative Measurements. *Fang, X.*, +, *TSP 2020 5869-5881*
- Alternating Minimization Based First-Order Method for the Wireless Sensor Network Localization Problem. *Gur, E.*, +, *TSP 2020 6418-6431*
- On Optimality of Weighted Multidimensional Scaling for Range-Based Localization. *Wei, H.*, +, *TSP 2020 2105-2113*
- Optimal Sensor Placement for 2-D Range-Only Target Localization in Constrained Sensor Geometry. *Sadeghi, M.*, +, *TSP 2020 2316-2327*

**Sensors**

- A Novel Algorithm for Optimal Placement of Multiple Inertial Sensors to Improve the Sensing Accuracy. *Sahu, N.*, +, *TSP 2020 142-154*
- An Investigation and Solution of Angle Based Rigid Body Localization. *Wang, Y.*, +, *TSP 2020 5457-5472*
- AOA Pseudolinear Target Motion Analysis in the Presence of Sensor Location Errors. *Pang, F.*, +, *TSP 2020 3385-3399*
- Distributed Compressive Sensing: Performance Analysis With Diverse Signal Ensembles. *Hsieh, S.*, +, *TSP 2020 3500-3514*
- High-Resolution DOA Estimation Algorithm for a Single Acoustic Vector Sensor at Low SNR. *Zhang, J.*, +, *TSP 2020 6142-6158*
- Min-Max Metric for Spectrally Compatible Waveform Design Via Log-Exponential Smoothing. *Fan, W.*, +, *TSP 2020 1075-1090*

**Sequences**

- Blind Recognition of Cyclic Codes Based on Average Cosine Conformity. *Wu, Z.*, +, *TSP 2020 2328-2339*
- Cross Z-Complementary Pairs for Optimal Training in Spatial Modulation Over Frequency Selective Channels. *Liu, Z.*, +, *TSP 2020 1529-1543*
- Distributed Online Convex Optimization With Time-Varying Coupled Inequality Constraints. *Yi, X.*, +, *TSP 2020 731-746*
- Orthogonal Periodic Sequences for the Identification of Functional Link Polynomial Filters. *Carini, A.*, +, *TSP 2020 5308-5321*

**Sequential codes**

- Two-DimensionalZ-Complementary Array Code Sets Based on Matrices of Generating Polynomials. *Das, S.*, +, *TSP 2020 5519-5532*

**Sequential estimation**

- Collaborative Sequential State Estimation Under Unknown Heterogeneous Noise Covariance Matrices. *Dedecius, K.*, +, *TSP 2020 5365-5378*

**Series (mathematics)**

- Localized Analysis of Signals on the Sphere Over Polygon Regions. *Aslam, A.*, +, *TSP 2020 4568-4582*

**Set theory**

- Computationally Efficient Distributed Multi-Sensor Fusion With Multi-Bernoulli Filter. *Yi, W.*, +, *TSP 2020 241-256*
- Fast Graph Sampling Set Selection Using Gershgorin Disc Alignment. *Bai, Y.*, +, *TSP 2020 2419-2434*
- Fusion of Labeled RFS Densities With Minimum Information Loss. *Gao, L.*, +, *TSP 2020 5855-5868*
- Practical Product Code Construction of Polar Codes. *Condo, C.*, +, *TSP 2020 2004-2014*
- Two-DimensionalZ-Complementary Array Code Sets Based on Matrices of Generating Polynomials. *Das, S.*, +, *TSP 2020 5519-5532*

**Signal classification**

- An Enhanced Spatial Smoothing Technique With ESPRIT Algorithm for Direction of Arrival Estimation in Coherent Scenarios. *Pan, J.*, +, *TSP 2020 3635-3643*
- Bayesian Nonnegative Matrix Factorization With Dirichlet Process Mixtures. *Li, C.*, +, *TSP 2020 3860-3870*
- Components Separation Algorithm for Localization and Classification of Mixed Near-Field and Far-Field Sources in Multipath Propagation. *Molaei, A.M.*, +, *TSP 2020 404-419*
- Functional Nonlinear Sparse Models. *Chamon, L.F.O.*, +, *TSP 2020 2449-2463*
- Improved Most Likely Heteroscedastic Gaussian Process Regression via Bayesian Residual Moment Estimator. *Zhang, Q.*, +, *TSP 2020 3450-3460*
- Network Dissensus via Distributed ADMM. *Kumar, C.*, +, *TSP 2020 2287-2301*
- Real-Time Embedded EMG Signal Analysis for Wrist-Hand Pose Identification. *Raurale, S.A.*, +, *TSP 2020 2713-2723*
- Reconstructing Classes of Non-Bandlimited Signals From Time Encoded Information. *Alexandru, R.*, +, *TSP 2020 747-763*

**Signal denoising**

- Convergence Guarantees for Non-Convex Optimisation With Cauchy-Based Penalties. *Karakus, O.*, +, *TSP 2020 6159-6170*
- Diffusion Average-Estimate Bias-Compensated LMS Algorithms Over Adaptive Networks Using Noisy Measurements. *Zhang, S.*, +, *TSP 2020 4643-4655*
- Identifying Cognitive Radars - Inverse Reinforcement Learning Using Revealed Preferences. *Krishnamurthy, V.*, +, *TSP 2020 4529-4542*
- Improved Most Likely Heteroscedastic Gaussian Process Regression via Bayesian Residual Moment Estimator. *Zhang, Q.*, +, *TSP 2020 3450-3460*
- Intelligent Reflecting Surface Aided Multigroup Multicast MISO Communication Systems. *Zhou, G.*, +, *TSP 2020 3236-3251*
- Joint EigenValue Decomposition Algorithms Based on First-Order Taylor Expansion. *Andre, R.*, +, *TSP 2020 1716-1727*
- Maximum Total Complex Correntropy for Adaptive Filter. *Qian, G.*, +, *TSP 2020 978-989*
- On the Resolution Probability of Conditional and Unconditional Maximum Likelihood DoA Estimation. *Mestre, X.*, +, *TSP 2020 4656-4671*
- Parametric Signal Estimation Using the Cumulative Distribution Transform. *Rubaiyat, A.H.M.*, +, *TSP 2020 3312-3324*
- Subspace-Based Near-Field Source Localization in Unknown Spatially Non-uniform Noise Environment. *Zuo, W.*, +, *TSP 2020 4713-4726*
- Two-User SIMO Interference Channel With Treating Interference as Noise: Improper Signaling Versus Time-Sharing. *Hellings, C.*, +, *TSP 2020 6467-6480*
- Wavelet Based Multivariate Signal Denoising Using Mahalanobis Distance and EDF Statistics. *Naveed, K.*, +, *TSP 2020 5997-6010*

**Signal detection**

- A MIMO Version of the Reed-Yu Detector and Its Connection to the Wilks Lambda and Hotelling  $T^2$  Statistics. *Butler, R.W.*, +, *TSP 2020 2925-2934*
- Algorithms for Change Detection With Sparse Signals. *Jain, A.*, +, *TSP 2020 1331-1345*
- Blind Community Detection From Low-Rank Excitations of a Graph Filter. *Wai, H.*, +, *TSP 2020 436-451*
- Cooperative Detection by Multi-Agent Networks in the Presence of Position Uncertainty. *Gu, K.*, +, *TSP 2020 5411-5426*
- CSI-Independent Non-Linear Signal Detection in Molecular Communications. *Li, B.*, +, *TSP 2020 97-112*
- Distributed Detection of Sparse Signals With Physical Layer Secrecy Constraints: A Falsified Censoring Strategy. *Li, C.*, +, *TSP 2020 6040-6054*
- Distributed Detection of Sparse Stochastic Signals With 1-Bit Data in Tree-Structured Sensor Networks. *Li, C.*, +, *TSP 2020 2963-2976*
- Distributed Sequential Detection: Dependent Observations and Imperfect Communication. *Zhang, S.*, +, *TSP 2020 830-842*
- Energy- and Area-Efficient Recursive-Conjugate-Gradient-Based MMSE Detector for Massive MIMO Systems. *Liu, L.*, +, *TSP 2020 573-588*
- Learned Conjugate Gradient Descent Network for Massive MIMO Detection. *Wei, Y.*, +, *TSP 2020 6336-6349*
- Model-Driven Deep Learning for MIMO Detection. *He, H.*, +, *TSP 2020 1702-1715*
- Multiple Change Points Detection in Low Rank and Sparse High Dimensional Vector Autoregressive Models. *Bai, P.*, +, *TSP 2020 3074-3089*
- Quadratic FM Signal Detection and Parameter Estimation Using Coherently Integrated Trilinear Autocorrelation Function. *Zhang, J.*, +, *TSP 2020 621-633*
- Scale-Invariant Subspace Detectors Based on First- and Second-Order Statistical Models. *Santamaria, L.*, +, *TSP 2020 6432-6443*
- Sub-Nyquist Spectrum Sensing of Sparse Wideband Signals Using Low-Density Measurement Matrices. *Vasavada, Y.*, +, *TSP 2020 3723-3737*
- Tunable Adaptive Target Detection With Kernels in Colocated MIMO Radar. *Zaibashi, A.*, +, *TSP 2020 1500-1514*
- Two-Channel Passive Detection of Cyclostationary Signals. *Horstmann, S.*, +, *TSP 2020 2340-2355*

**Signal processing**

- Action-Manipulation Attacks Against Stochastic Bandits: Attacks and Defense. *Liu, G.*, +, *TSP 2020 5152-5165*
- An Interference-Tolerant Algorithm for Wide-Band Moving Source Passive Localization. *Napolitano, A.*, *TSP 2020 3471-3485*

- Change Detection in Complex Dynamical Systems Using Intrinsic Phase and Amplitude Synchronization. *Iqbal, A.S.*, +, *TSP 2020 4743-4756*
- Communication Under Channel Uncertainty: An Algorithmic Perspective and Effective Construction. *Boche, H.*, +, *TSP 2020 6224-6239*
- Differential and Weighted Slepian Concentration Problems on the Sphere. *Nafees, W.*, +, *TSP 2020 2830-2840*
- Distributed Separated-Decorrelation LMS Algorithms Over Sensor Networks With Noisy Inputs. *Zhang, S.*, +, *TSP 2020 4163-4177*
- Distributed Signal Processing and Optimization Based on In-Network Subspace Projections. *Di Lorenzo, P.*, +, *TSP 2020 2061-2076*
- Estimation of Sinusoidal Frequency-Modulated Signal Parameters by Two Branches and Two Stages. *Bai, G.*, +, *TSP 2020 4959-4970*
- Fast and Efficient Time-Reversal Imaging Using Space-Frequency Propagator Method. *Hu, B.*, +, *TSP 2020 2077-2086*
- Fixed-Point Minimum Error Entropy With Fiducial Points. *Xie, Y.*, +, *TSP 2020 3824-3833*
- Graph Fourier Transform: A Stable Approximation. *Domingos, J.*, +, *TSP 2020 4422-4437*
- Graph Signal Processing in the Presence of Topology Uncertainties. *Ceci, E.*, +, *TSP 2020 1558-1573*
- Hybrid Block Successive Approximation for One-Sided Non-Convex Min-Max Problems: Algorithms and Applications. *Lu, S.*, +, *TSP 2020 3676-3691*
- Low-Complexity Methods for Estimation After Parameter Selection. *Harel, N.*, +, *TSP 2020 1152-1167*
- Majorize–Minimize Adapted Metropolis–Hastings Algorithm. *Marnissi, Y.*, +, *TSP 2020 2356-2369*
- Nonlinear Filtering With Variable Bandwidth Exponential Kernels. *Taseska, M.*, +, *TSP 2020 314-326*
- On Computing the Discrete Hirschman Transform. *Xue, D.*, +, *TSP 2020 6444-6452*
- On the Convergence of a Bayesian Algorithm for Joint Dictionary Learning and Sparse Recovery. *Joseph, G.*, +, *TSP 2020 343-358*
- Online Proximal Learning Over Jointly Sparse Multitask Networks With  $\ell_{\infty,1}$  Regularization. *Jin, D.*, +, *TSP 2020 6319-6335*
- Parametric Sparse Bayesian Dictionary Learning for Multiple Sources Localization With Propagation Parameters Uncertainty. *You, K.*, +, *TSP 2020 4194-4209*
- Privacy-Preserving Distributed Optimization via Subspace Perturbation: A General Framework. *Li, Q.*, +, *TSP 2020 5983-5996*
- Robust Semiparametric Efficient Estimators in Complex Elliptically Symmetric Distributions. *Fortunati, S.*, +, *TSP 2020 5003-5015*
- Sparse Bayesian Learning With Dynamic Filtering for Inference of Time-Varying Sparse Signals. *O'Shaughnessy, M.R.*, +, *TSP 2020 388-403*
- Sparse Multiresolution Representations With Adaptive Kernels. *Peifer, M.*, +, *TSP 2020 2031-2044*
- Stabilization of a Modified LMS Algorithm for Canceling Nonlinear Memory Effects. *Xiao, Y.*, *TSP 2020 3439-3449*
- Stochastic Analysis of the Recursive Least Squares Algorithm for Cyclostationary Colored Inputs. *Eweda, E.*, +, *TSP 2020 676-686*
- Topological Signal Processing Over Simplicial Complexes. *Barbarossa, S.*, +, *TSP 2020 2992-3007*
- Unified and Self-Stabilized Parallel Algorithm for Multiple Generalized Eigenpairs Extraction. *Kong, X.*, +, *TSP 2020 3644-3659*
- Variable Step-Size Widely Linear Complex-Valued Affine Projection Algorithm and Performance Analysis. *Shi, L.*, +, *TSP 2020 5940-5953*
- Variance State Propagation for Structured Sparse Bayesian Learning. *Zhang, M.*, +, *TSP 2020 2386-2400*
- Signal processing algorithms**
- Learning Nonlinear Mixtures: Identifiability and Algorithm. *Yang, B.*, +, *TSP 2020 2857-2869*
- Signal reconstruction**
- A New Class of Explicit Interpolatory Splines and Related Measurement Estimation. *Chen, J.*, +, *TSP 2020 2799-2813*
- Accelerated Schemes for the  $L_1/L_2$  Minimization. *Wang, C.*, +, *TSP 2020 2660-2669*
- Blind Recognition of Cyclic Codes Based on Average Cosine Conformity. *Wu, Z.*, +, *TSP 2020 2328-2339*
- Continuous-Domain Signal Reconstruction Using  $L_p$ -Norm Regularization. *Bohra, P.*, +, *TSP 2020 4543-4554*
- Convergence Guarantees for Non-Convex Optimisation With Cauchy-Based Penalties. *Karakus, O.*, +, *TSP 2020 6159-6170*
- Convolution Idempotents With a Given Zero-Set. *Siripuram, A.*, +, *TSP 2020 4773-4781*
- Efficient Least Residual Greedy Algorithms for Sparse Recovery. *Leibovitz, G.*, +, *TSP 2020 3707-3722*
- Exact and Robust Reconstructions of Integer Vectors Based on Multidimensional Chinese Remainder Theorem (MD-CRT). *Xiao, L.*, +, *TSP 2020 5349-5364*
- Fast Graph Sampling Set Selection Using Gershgorin Disc Alignment. *Bai, Y.*, +, *TSP 2020 2419-2434*
- Graph Sampling for Matrix Completion Using Recurrent Gershgorin Disc Shift. *Wang, F.*, +, *TSP 2020 2814-2829*
- Identifiability Conditions for Compressive Multichannel Blind Deconvolution. *Mulleti, S.*, +, *TSP 2020 4627-4642*
- Localized Analysis of Signals on the Sphere Over Polygon Regions. *Aslam, A.*, +, *TSP 2020 4568-4582*
- Low-Complexity On-Demand Reconstruction for Compressively Sensed Problematic Signals. *Chou, C.*, +, *TSP 2020 4094-4107*
- Low-Rank Hankel Matrix Completion for Robust Time-Frequency Analysis. *Zhang, S.*, +, *TSP 2020 6171-6186*
- Network Dissensus via Distributed ADMM. *Kumar, C.*, +, *TSP 2020 2287-2301*
- Newton-Step-Based Hard Thresholding Algorithms for Sparse Signal Recovery. *Meng, N.*, +, *TSP 2020 6594-6606*
- PhaseEqual: Convex Phase Retrieval via Alternating Direction Method of Multipliers. *Wang, B.*, +, *TSP 2020 1274-1285*
- Random Phaseless Sampling for Causal Signals in Shift-Invariant Spaces: A Zero Distribution Perspective. *Li, Y.*, +, *TSP 2020 5473-5486*
- Reconstructing Classes of Non-Bandlimited Signals From Time Encoded Information. *Alexandru, R.*, +, *TSP 2020 747-763*
- Reliable Recovery of Hierarchically Sparse Signals for Gaussian and Kronecker Product Measurements. *Roth, I.*, +, *TSP 2020 4002-4016*
- Sampling and Reconstruction of Bandlimited Signals With Multi-Channel Time Encoding. *Adam, K.*, +, *TSP 2020 1105-1119*
- Signal-Dependent Performance Analysis of Orthogonal Matching Pursuit for Exact Sparse Recovery. *Wen, J.*, +, *TSP 2020 5031-5046*
- Stability Analysis of  $\ell_{\infty}$ -Norm Based Convolutional Sparse Coding Using Stripe Coherence. *Fu, Y.*, +, *TSP 2020 5810-5823*
- Sub-Nyquist Spectrum Sensing of Sparse Wideband Signals Using Low-Density Measurement Matrices. *Vasavada, Y.*, +, *TSP 2020 3723-3737*
- Tensor Completion From Regular Sub-Nyquist Samples. *Kanatsoulis, C.I.*, +, *TSP 2020 1-16*
- Turing Meets Shannon: Computable Sampling Type Reconstruction With Error Control. *Boche, H.*, +, *TSP 2020 6350-6365*
- Signal representation**
- Beamspace Direct Localization for Large-Scale Antenna Array Systems. *Zhao, H.*, +, *TSP 2020 3529-3544*
- Convolutional Beamspace for Linear Arrays. *Chen, P.*, +, *TSP 2020 5395-5410*
- Deeply-Sparse Signal rePresentations (DS<sup>2</sup>P). *Ba, D.*, *TSP 2020 4727-4742*
- Dictionary Learning With BLOTLESS Update. *Yu, Q.*, +, *TSP 2020 1635-1645*
- Distributed Coding of Quantized Random Projections. *Goukhshtein, M.*, +, *TSP 2020 5924-5939*
- Eigenspace Solution for AOA Localization in Modified Polar Representation. *Sun, Y.*, +, *TSP 2020 2256-2271*
- Generating Sparse Stochastic Processes Using Matched Splines. *Dadi, L.*, +, *TSP 2020 4397-4406*
- Joint Channel and Location Estimation of Massive MIMO System With Phase Noise. *Zheng, X.*, +, *TSP 2020 2598-2612*
- Localized Analysis of Signals on the Sphere Over Polygon Regions. *Aslam, A.*, +, *TSP 2020 4568-4582*
- Low-Rank Hankel Matrix Completion for Robust Time-Frequency Analysis. *Zhang, S.*, +, *TSP 2020 6171-6186*
- Nonlinear Filtering With Variable Bandwidth Exponential Kernels. *Taseska, M.*, +, *TSP 2020 314-326*

Orthogonal and Non-Orthogonal Signal Representations Using New Transformation Matrices Having NPM Structure. *Shah, S.B.*, +, *TSP 2020 1229-1242*

Padded Coprime Arrays for Improved DOA Estimation: Exploiting Hole Representation and Filling Strategies. *Zheng, W.*, +, *TSP 2020 4597-4611*

Quaternion Non-Negative Matrix Factorization: Definition, Uniqueness, and Algorithm. *Flamant, J.*, +, *TSP 2020 1870-1883*

Turing Computability of Fourier Transforms of Bandlimited and Discrete Signals. *Boche, H.*, +, *TSP 2020 532-547*

Un-Rectifying Non-Linear Networks for Signal Representation. *Hwang, W.*, +, *TSP 2020 196-210*

Variations on the Convolutional Sparse Coding Model. *Rey-Otero, I.*, +, *TSP 2020 519-528*

#### Signal resolution

Asynchronous Blind Network-Assisted Diversity Multiple Access. *Akl, N.*, +, *TSP 2020 990-1001*

Continuous-Domain Signal Reconstruction Using  $L_p$ -Norm Regularization. *Bohra, P.*, +, *TSP 2020 4543-4554*

Convolutional Dictionary Learning With Grid Refinement. *Song, A.H.*, +, *TSP 2020 2558-2573*

On the Resolution Probability of Conditional and Unconditional Maximum Likelihood DoA Estimation. *Mestre, X.*, +, *TSP 2020 4656-4671*

#### Signal restoration

SPOQ $\ell_p$ -Over- $\ell_q$  Regularization for Sparse Signal Recovery Applied to Mass Spectrometry. *Cherni, A.*, +, *TSP 2020 6070-6084*

#### Signal sampling

A New Class of Explicit Interpolatory Splines and Related Measurement Estimation. *Chen, J.*, +, *TSP 2020 2799-2813*

Analysis of Different Rational Decimated Filter Banks Derived From the Same Set of Prototype Filters. *V, H.*, +, *TSP 2020 1923-1936*

Convolution Idempotents With a Given Zero-Set. *Siripuram, A.*, +, *TSP 2020 4773-4781*

Convolutional Dictionary Learning With Grid Refinement. *Song, A.H.*, +, *TSP 2020 2558-2573*

Exact and Robust Reconstructions of Integer Vectors Based on Multidimensional Chinese Remainder Theorem (MD-CRT). *Xiao, L.*, +, *TSP 2020 5349-5364*

Fast Graph Sampling Set Selection Using Gershgorin Disc Alignment. *Bai, Y.*, +, *TSP 2020 2419-2434*

Fractional Spectrum Analysis for Nonuniform Sampling in the Presence of Clock Jitter and Timing Offset. *Ma, J.*, +, *TSP 2020 4148-4162*

Frequency-Domain Prony Method for Autoregressive Model Identification and Sinusoidal Parameter Estimation. *Ando, S.*, *TSP 2020 3461-3470*

Generalized Sampling on Graphs With Subspace and Smoothness Priors. *Tanaka, Y.*, +, *TSP 2020 2272-2286*

Graph Sampling for Matrix Completion Using Recurrent Gershgorin Disc Shift. *Wang, F.*, +, *TSP 2020 2814-2829*

Gridless Parameter Estimation for One-Bit MIMO Radar With Time-Varying Thresholds. *Xi, F.*, +, *TSP 2020 1048-1063*

Identifiability Conditions for Compressive Multichannel Blind Deconvolution. *Mulletti, S.*, +, *TSP 2020 4627-4642*

Random Phaseless Sampling for Causal Signals in Shift-Invariant Spaces: A Zero Distribution Perspective. *Li, Y.*, +, *TSP 2020 5473-5486*

Reconstructing Classes of Non-Bandlimited Signals From Time Encoded Information. *Alexandru, R.*, +, *TSP 2020 747-763*

Reliable Recovery of Hierarchically Sparse Signals for Gaussian and Kronecker Product Measurements. *Roth, I.*, +, *TSP 2020 4002-4016*

Sampling and Reconstruction of Bandlimited Signals With Multi-Channel Time Encoding. *Adam, K.*, +, *TSP 2020 1105-1119*

Sensing Matrix Design and Sparse Recovery on the Sphere and the Rotation Group. *Bangun, A.*, +, *TSP 2020 1439-1454*

Sparse Bayesian DOA Estimation Using Hierarchical Synthesis Lasso Priors for Off-Grid Signals. *Yang, J.*, +, *TSP 2020 872-884*

Sub-Nyquist Spectrum Sensing of Sparse Wideband Signals Using Low-Density Measurement Matrices. *Vasavada, Y.*, +, *TSP 2020 3723-3737*

Tensor Completion From Regular Sub-Nyquist Samples. *Kanatsoulis, C.I.*, +, *TSP 2020 1-16*

Turing Meets Shannon: Computable Sampling Type Reconstruction With Error Control. *Boche, H.*, +, *TSP 2020 6350-6365*

#### Signal synthesis

On the Design of Multi-Spectrally Constrained Constant Modulus Radar Signals. *Aubry, A.*, +, *TSP 2020 2231-2243*

#### Singular value decomposition

Blind Interference Alignment With ISI: A New Look at OFDM for  $K$ -User Interference Channels. *Lee, B.*, +, *TSP 2020 4497-4512*

Efficient Low-Rank Approximation of Matrices Based on Randomized Pivoted Decomposition. *Kaloorazi, M.F.*, +, *TSP 2020 3575-3589*

Fast and Efficient Time-Reversal Imaging Using Space-Frequency Propagator Method. *Hu, B.*, +, *TSP 2020 2077-2086*

Hyperspectral Super-Resolution With Coupled Tucker Approximation: Recoverability and SVD-Based Algorithms. *Prevost, C.*, +, *TSP 2020 931-946*

Quaternion-Based Bilinear Factor Matrix Norm Minimization for Color Image Inpainting. *Miao, J.*, +, *TSP 2020 5617-5631*

Robust Matrix Completion via Maximum Correntropy Criterion and Half-Quadratic Optimization. *He, Y.*, +, *TSP 2020 181-195*

#### SISO communication

Blind Interference Alignment With ISI: A New Look at OFDM for  $K$ -User Interference Channels. *Lee, B.*, +, *TSP 2020 4497-4512*

#### SLAM (robots)

Shapes From Echoes: Uniqueness From Point-to-Plane Distance Matrices. *Krekovic, M.*, +, *TSP 2020 2480-2498*

#### Smoothing methods

A Dimension Reduction-Based Joint Activity Detection and Channel Estimation Algorithm for Massive Access. *Shao, X.*, +, *TSP 2020 420-435*

An Enhanced Spatial Smoothing Technique With ESPRIT Algorithm for Direction of Arrival Estimation in Coherent Scenarios. *Pan, J.*, +, *TSP 2020 3635-3643*

Subspace-Based Near-Field Source Localization in Unknown Spatially Non-uniform Noise Environment. *Zuo, W.*, +, *TSP 2020 4713-4726*

#### Social networking (online)

Tensor Graph Convolutional Networks for Multi-Relational and Robust Learning. *Ioannidis, V.N.*, +, *TSP 2020 6535-6546*

#### Social sciences computing

Non-Bayesian Social Learning With Uncertain Models. *Hare, J.Z.*, +, *TSP 2020 4178-4193*

#### Software radio

Analysis of Different Rational Decimated Filter Banks Derived From the Same Set of Prototype Filters. *V, H.*, +, *TSP 2020 1923-1936*

#### Sonar signal processing

Multi-Class Random Matrix Filtering for Adaptive Learning. *Braca, P.*, +, *TSP 2020 359-373*

#### Sorting

A Node-Reliability Based CRC-Aided Successive Cancellation List Polar Decoder Architecture Combined With Post-Processing. *Lee, H.*, +, *TSP 2020 5954-5967*

#### Source coding

Distributed Coding of Quantized Random Projections. *Goukhshtein, M.*, +, *TSP 2020 5924-5939*

#### Source separation

A Provably Correct and Robust Algorithm for Convolutional Nonnegative Matrix Factorization. *Degleris, A.*, +, *TSP 2020 2499-2512*

An Interference-Tolerant Algorithm for Wide-Band Moving Source Passive Localization. *Napolitano, A.*, *TSP 2020 3471-3485*

Learning Nonlinear Mixtures: Identifiability and Algorithm. *Yang, B.*, +, *TSP 2020 2857-2869*

Target Detection With Imperfect Waveform Separation in Distributed MIMO Radar. *Wang, P.*, +, *TSP 2020 793-807*

#### Space-time adaptive processing

Polyphase Waveform Design for MIMO Radar Space Time Adaptive Processing. *Tang, B.*, +, *TSP 2020 2143-2154*

Quadratic Semidefinite Programming for Waveform-Constrained Joint Filter-Signal Design in STAP. *O'Rourke, S.M.*, +, *TSP 2020 1744-1759*

Robust Two-Stage Reduced-Dimension Sparsity-Aware STAP for Airborne Radar With Coprime Arrays. *Wang, X.*, +, *TSP 2020 81-96*

**Space-time codes**

Joint Design of Surveillance Radar and MIMO Communication in Cluttered Environments. *Grossi, E.*, +, *TSP 2020 1544-1557*

**Sparse matrices**

A Dictionary-Based Generalization of Robust PCA With Applications to Target Localization in Hyperspectral Imaging. *Rambhatla, S.*, +, *TSP 2020 1760-1775*

Bayesian Nonnegative Matrix Factorization With Dirichlet Process Mixtures. *Li, C.*, +, *TSP 2020 3860-3870*

Blind Community Detection From Low-Rank Excitations of a Graph Filter. *Wai, H.*, +, *TSP 2020 436-451*

Blind Deconvolution Using Modulated Inputs. *Ahmed, A.*, *TSP 2020 374-387*

Deeply-Sparse Signal rePresentations (DS<sup>2</sup>P). *Ba, D.*, *TSP 2020 4727-4742*

Reliable Recovery of Hierarchically Sparse Signals for Gaussian and Kronecker Product Measurements. *Roth, I.*, +, *TSP 2020 4002-4016*

Signal-Dependent Performance Analysis of Orthogonal Matching Pursuit for Exact Sparse Recovery. *Wen, J.*, +, *TSP 2020 5031-5046*

Stability Analysis of  $\ell_{0,\infty}$ -Norm Based Convolutional Sparse Coding Using Stripe Coherence. *Fu, Y.*, +, *TSP 2020 5810-5823*

Support Recovery for Sparse Signals With Unknown Non-Stationary Modulation. *Xie, Y.*, +, *TSP 2020 1884-1896*

Unraveling the Veil of Subspace RIP Through Near-Isometry on Subspaces. *Xu, X.*, +, *TSP 2020 3117-3131*

**Spatiotemporal phenomena**

Modeling of Spatio-Temporal Hawkes Processes With Randomized Kernels. *Ilhan, F.*, +, *TSP 2020 4946-4958*

**Spectral analysis**

A Dictionary-Based Generalization of Robust PCA With Applications to Target Localization in Hyperspectral Imaging. *Rambhatla, S.*, +, *TSP 2020 1760-1775*

An Interference-Tolerant Algorithm for Wide-Band Moving Source Passive Localization. *Napolitano, A.*, *TSP 2020 3471-3485*

Frequency-Domain Prony Method for Autoregressive Model Identification and Sinusoidal Parameter Estimation. *Ando, S.*, *TSP 2020 3461-3470*

Functional Nonlinear Sparse Models. *Chamon, L.F.O.*, +, *TSP 2020 2449-2463*

Localized Analysis of Signals on the Sphere Over Polygon Regions. *Aslam, A.*, +, *TSP 2020 4568-4582*

Measurement of Power Density at Zero Frequency With a Trend Compensation. *Kim, D.S.*, *TSP 2020 1964-1973*

Multitaper Analysis of Semi-Stationary Spectra From Multivariate Neuronal Spiking Observations. *Rupasinghe, A.*, +, *TSP 2020 4382-4396*

On the Design of Multi-Spectrally Constrained Constant Modulus Radar Signals. *Aubry, A.*, +, *TSP 2020 2231-2243*

Sampling and Inference of Networked Dynamics Using Log-Koopman Non-linear Graph Fourier Transform. *Wei, Z.*, +, *TSP 2020 6187-6197*

**Speech enhancement**

Analyzing Upper Bounds on Mean Absolute Errors for Deep Neural Network-Based Vector-to-Vector Regression. *Qi, J.*, +, *TSP 2020 3411-3422*

Robust Multichannel Linear Prediction for Online Speech Dereverberation Using Weighted Householder Least Squares Lattice Adaptive Filter. *Wung, J.*, +, *TSP 2020 3559-3574*

**Speech recognition**

Robust Multichannel Linear Prediction for Online Speech Dereverberation Using Weighted Householder Least Squares Lattice Adaptive Filter. *Wung, J.*, +, *TSP 2020 3559-3574*

**Splines (mathematics)**

A New Class of Explicit Interpolatory Splines and Related Measurement Estimation. *Chen, J.*, +, *TSP 2020 2799-2813*

Continuous-Domain Signal Reconstruction Using  $L_p$ -Norm Regularization. *Bohra, P.*, +, *TSP 2020 4543-4554*

Deep Neural Networks With Trainable Activations and Controlled Lipschitz Constant. *Aziznejad, S.*, +, *TSP 2020 4688-4699*

Generating Sparse Stochastic Processes Using Matched Splines. *Dadi, L.*, +, *TSP 2020 4397-4406*

Reconstructing Classes of Non-Bandlimited Signals From Time Encoded Information. *Alexandru, R.*, +, *TSP 2020 747-763*

**Stability**

A Note on BIBO Stability. *Unser, M.*, *TSP 2020 5904-5913*

Robust and Computationally Efficient Digital IIR Filter Synthesis and Stability Analysis Under Finite Precision Implementations. *Ko, H.*, +, *TSP 2020 1807-1822*

**State estimation**

Collaborative Sequential State Estimation Under Unknown Heterogeneous Noise Covariance Matrices. *Dedecius, K.*, +, *TSP 2020 5365-5378*

Diffusion Maps Kalman Filter for a Class of Systems With Gradient Flows. *Shnitzer, T.*, +, *TSP 2020 2739-2753*

Optimal Resource Allocation for Asynchronous Multiple Targets Tracking in Heterogeneous Radar Networks. *Yan, J.*, +, *TSP 2020 4055-4068*

Security-Enhanced Filter Design for Stochastic Systems under Malicious Attack via Smoothed Signal Model and Multiobjective Estimation Method. *Chen, B.*, +, *TSP 2020 4971-4986*

**State-space methods**

Augmented Space Linear Models. *Qin, Z.*, +, *TSP 2020 2724-2738*

Optimal Sequential Estimation for Asynchronous Sampling Discrete-Time Systems. *Lin, H.*, +, *TSP 2020 6117-6127*

Robust and Computationally Efficient Digital IIR Filter Synthesis and Stability Analysis Under Finite Precision Implementations. *Ko, H.*, +, *TSP 2020 1807-1822*

**Statistical analysis**

A Generalized Version of ACE and Performance Analysis. *Raghavan, R.S.*, *TSP 2020 2574-2585*

A Large Dimensional Study of Regularized Discriminant Analysis. *Elkhalil, K.*, +, *TSP 2020 2464-2479*

A MIMO Version of the Reed-Yu Detector and Its Connection to the Wilks Lambda and Hotelling  $T^2$  Statistics. *Butler, R.W.*, +, *TSP 2020 2925-2934*

A Statistical Time-Frequency Model for Non-stationary Time Series Analysis. *Luo, Y.*, +, *TSP 2020 4757-4772*

An Asymptotically Efficient Weighted Least Squares Estimator for Co-Array-Based DoA Estimation. *Sedighi, S.*, +, *TSP 2020 589-604*

Change Detection in Complex Dynamical Systems Using Intrinsic Phase and Amplitude Synchronization. *Iquebal, A.S.*, +, *TSP 2020 4743-4756*

Defining Fundamental Frequency for Almost Harmonic Signals. *Elvander, F.*, +, *TSP 2020 6453-6466*

Eigenspace Solution for AOA Localization in Modified Polar Representation. *Sun, Y.*, +, *TSP 2020 2256-2271*

Exploring Positive Noise in Estimation Theory. *Radnosrati, K.*, +, *TSP 2020 3590-3602*

Graph-Based Learning Under Perturbations via Total Least-Squares. *Ceci, E.*, +, *TSP 2020 2870-2882*

Maximum Total Complex Correntropy for Adaptive Filter. *Qian, G.*, +, *TSP 2020 978-989*

NEWMA: A New Method for Scalable Model-Free Online Change-Point Detection. *Keriven, N.*, +, *TSP 2020 3515-3528*

Robust Semiparametric Efficient Estimators in Complex Elliptically Symmetric Distributions. *Fortunati, S.*, +, *TSP 2020 5003-5015*

Scale-Invariant Subspace Detectors Based on First- and Second-Order Statistical Models. *Santamaria, I.*, +, *TSP 2020 6432-6443*

Sparse Multiresolution Representations With Adaptive Kernels. *Peifer, M.*, +, *TSP 2020 2031-2044*

**Statistical databases**

Differential Private Noise Adding Mechanism and Its Application on Consensus Algorithm. *He, J.*, +, *TSP 2020 4069-4082*

**Statistical distributions**

A MIMO Version of the Reed-Yu Detector and Its Connection to the Wilks Lambda and Hotelling  $T^2$  Statistics. *Butler, R.W.*, +, *TSP 2020 2925-2934*

Convergence Guarantees for Non-Convex Optimisation With Cauchy-Based Penalties. *Karakus, O.*, +, *TSP 2020 6159-6170*

Deviance Tests for Graph Estimation From Multi-Attribute Gaussian Data. *Tugnait, J.K.*, *TSP 2020 5632-5647*

Distributions and Power of Optimal Signal-Detection Statistics in Finite Case. *Zhang, H.*, +, *TSP 2020 1021-1033*

Dynamic Sensor Subset Selection for Centralized Tracking of an IID Process. *Chattopadhyay, A.*, +, *TSP 2020 3209-3224*

Invariance Theory for Adaptive Detection in Non-Gaussian Clutter. *Tang, M.*, +, *TSP 2020 2045-2060*

On Optimality of Weighted Multidimensional Scaling for Range-Based Localization. *Wei, H.*, +, *TSP 2020 2105-2113*

Robust Semiparametric Efficient Estimators in Complex Elliptically Symmetric Distributions. *Fortunati, S.*, +, *TSP 2020 5003-5015*

Wavelet Based Multivariate Signal Denoising Using Mahalanobis Distance and EDF Statistics. *Naveed, K.*, +, *TSP 2020 5997-6010*

#### Statistical testing

A Generalized Version of ACE and Performance Analysis. *Raghavan, R.S.*, *TSP 2020 2574-2585*

Diffuse Multipath Exploitation for Adaptive Detection of Range Distributed Targets. *Rong, Y.*, +, *TSP 2020 1197-1212*

Distributed Sequential Detection: Dependent Observations and Imperfect Communication. *Zhang, S.*, +, *TSP 2020 830-842*

Distributions and Power of Optimal Signal-Detection Statistics in Finite Case. *Zhang, H.*, +, *TSP 2020 1021-1033*

Massive MIMO Radar for Target Detection. *Fortunati, S.*, +, *TSP 2020 859-871*

Robust Semiparametric Efficient Estimators in Complex Elliptically Symmetric Distributions. *Fortunati, S.*, +, *TSP 2020 5003-5015*

Two-Channel Passive Detection of Cyclostationary Signals. *Horstmann, S.*, +, *TSP 2020 2340-2355*

Wavelet Based Multivariate Signal Denoising Using Mahalanobis Distance and EDF Statistics. *Naveed, K.*, +, *TSP 2020 5997-6010*

#### Stochastic processes

Accelerated Structure-Aware Reinforcement Learning for Delay-Sensitive Energy Harvesting Wireless Sensors. *Sharma, N.*, +, *TSP 2020 1409-1424*

Action-Manipulation Attacks Against Stochastic Bandits: Attacks and Defense. *Liu, G.*, +, *TSP 2020 5152-5165*

Adaptation and Learning Over Networks Under Subspace Constraints—Part I: Stability Analysis. *Nassif, R.*, +, *TSP 2020 1346-1360*

Adaptation and Learning Over Networks Under Subspace Constraints—Part II: Performance Analysis. *Nassif, R.*, +, *TSP 2020 2948-2962*

Algorithms for Change Detection With Sparse Signals. *Jain, A.*, +, *TSP 2020 1331-1345*

An Exact Expectation Model for the LMS Tracking Abilities. *Silva, T.T.P.*, +, *TSP 2020 5882-5893*

Block-Randomized Stochastic Proximal Gradient for Low-Rank Tensor Factorization. *Fu, X.*, +, *TSP 2020 2170-2185*

Continuous-Discrete Multiple Target Filtering: PMBM, PHD and CPHD Filter Implementations. *Garcia-Fernandez, A.F.*, +, *TSP 2020 1300-1314*

Convergence of Distributed Stochastic Variance Reduced Methods Without Sampling Extra Data. *Cen, S.*, +, *TSP 2020 3976-3989*

Cramér-Rao Bound for DOA Estimators Under the Partial Relaxation Framework: Derivation and Comparison. *Trinh-Hoang, M.*, +, *TSP 2020 3194-3208*

CSI-Independent Non-Linear Signal Detection in Molecular Communications. *Li, B.*, +, *TSP 2020 97-112*

Decentralized Multi-Agent Stochastic Optimization With Pairwise Constraints and Quantized Communications. *Cao, X.*, +, *TSP 2020 3296-3311*

Defining Fundamental Frequency for Almost Harmonic Signals. *Elvander, F.*, +, *TSP 2020 6453-6466*

Differential and Weighted Slepian Concentration Problems on the Sphere. *Nafees, W.*, +, *TSP 2020 2830-2840*

Diffusion Maps Kalman Filter for a Class of Systems With Gradient Flows. *Shnitzer, T.*, +, *TSP 2020 2739-2753*

Distributed Compressive Sensing: Performance Analysis With Diverse Signal Ensembles. *Hsieh, S.*, +, *TSP 2020 3500-3514*

Distributed Detection of Sparse Stochastic Signals With 1-Bit Data in Tree-Structured Sensor Networks. *Li, C.*, +, *TSP 2020 2963-2976*

Distributed Optimal Linear Fusion Predictors and Filters for Systems With Random Parameter Matrices and Correlated Noises. *Sun, S.*, *TSP 2020 1064-1074*

Dynamic Sensor Subset Selection for Centralized Tracking of an IID Process. *Chattopadhyay, A.*, +, *TSP 2020 3209-3224*

Exploring Positive Noise in Estimation Theory. *Radnosrati, K.*, +, *TSP 2020 3590-3602*

Federated Variance-Reduced Stochastic Gradient Descent With Robustness to Byzantine Attacks. *Wu, Z.*, +, *TSP 2020 4583-4596*

Generating Sparse Stochastic Processes Using Matched Splines. *Dadi, L.*, +, *TSP 2020 4397-4406*

High-Dimensional Stochastic Gradient Quantization for Communication-Efficient Edge Learning. *Du, Y.*, +, *TSP 2020 2128-2142*

Identifying Cognitive Radars - Inverse Reinforcement Learning Using Revealed Preferences. *Krishnamurthy, V.*, +, *TSP 2020 4529-4542*

Large Intelligent Surface Aided Physical Layer Security Transmission. *Feng, B.*, +, *TSP 2020 5276-5291*

Machine Learning at the Wireless Edge: Distributed Stochastic Gradient Descent Over-the-Air. *Mohammadi Amiri, M.*, +, *TSP 2020 2155-2169*

Model-Based Robust Filtering and Experimental Design for Stochastic Differential Equation Systems. *Zhao, G.*, +, *TSP 2020 3849-3859*

NOMA-Aided UAV Communications over Correlated Rician Shadowed Fading Channels. *Ernest, T.Z.H.*, +, *TSP 2020 3103-3116*

Non-Parametric Decomposition of Pulse Pile-Up Under Gaussian Noise With Finite Data Sets. *McLean, C.*, +, *TSP 2020 2114-2127*

On DoA Estimation for Rotating Arrays Using Stochastic Maximum Likelihood Approach. *Meller, M.*, +, *TSP 2020 5219-5229*

On the Influence of Bias-Correction on Distributed Stochastic Optimization. *Yuan, K.*, +, *TSP 2020 4352-4367*

Optimal Sequential Estimation for Asynchronous Sampling Discrete—Time Systems. *Lin, H.*, +, *TSP 2020 6117-6127*

Orthogonal Periodic Sequences for the Identification of Functional Link Polynomial Filters. *Carini, A.*, +, *TSP 2020 5308-5321*

Robust SINR-Constrained Symbol-Level Multiuser Precoding With Imperfect Channel Knowledge. *Haqiqatnejad, A.*, +, *TSP 2020 1837-1852*

Scalable and Robust Community Detection With Randomized Sketching. *Rahmani, M.*, +, *TSP 2020 962-977*

Student's t-AR Modeling With Missing Data Via Stochastic EM and Gibbs Sampling. *Zhou, R.*, +, *TSP 2020 6198-6211*

The Vector Poisson Channel: On the Linearity of the Conditional Mean Estimator. *Dytso, A.*, +, *TSP 2020 5894-5903*

Variance-Reduced Stochastic Learning Under Random Reshuffling. *Ying, B.*, +, *TSP 2020 1390-1408*

Variants of Partial Update Augmented CLMS Algorithm and Their Performance Analysis. *Vahidpour, V.*, +, *TSP 2020 3146-3157*

#### Stochastic programming

Decentralized Multi-Agent Stochastic Optimization With Pairwise Constraints and Quantized Communications. *Cao, X.*, +, *TSP 2020 3296-3311*

High-Dimensional Nonconvex Stochastic Optimization by Doubly Stochastic Successive Convex Approximation. *Mokhtari, A.*, +, *TSP 2020 6287-6302*

On the Influence of Bias-Correction on Distributed Stochastic Optimization. *Yuan, K.*, +, *TSP 2020 4352-4367*

Variance-Reduced Decentralized Stochastic Optimization With Accelerated Convergence. *Xin, R.*, +, *TSP 2020 6255-6271*

#### Stochastic systems

Decentralized Multi-Agent Stochastic Optimization With Pairwise Constraints and Quantized Communications. *Cao, X.*, +, *TSP 2020 3296-3311*

Distributed Optimal Linear Fusion Predictors and Filters for Systems With Random Parameter Matrices and Correlated Noises. *Sun, S.*, *TSP 2020 1064-1074*

Erratum to “Security-Enhanced Filter Design for Stochastic Systems Under Malicious Attack via Smoothed Signal Model and Multiobjective Estimation Method” [20 4971-4986]. *Chen, B.*, +, *TSP 2020 5923*

Optimal Sequential Estimation for Asynchronous Sampling Discrete—Time Systems. *Lin, H.*, +, *TSP 2020 6117-6127*

Security-Enhanced Filter Design for Stochastic Systems under Malicious Attack via Smoothed Signal Model and Multiobjective Estimation Method. *Chen, B.*, +, *TSP 2020 4971-4986*

#### Stock markets

System Identification of High-Dimensional Linear Dynamical Systems With Serially Correlated Output Noise Components. *Lin, J.*, +, *TSP 2020 5573-5587*

#### Supervised learning

Brain Decoding of Viewed Image Categories via Semi-Supervised Multi-View Bayesian Generative Model. *Akamatsu, Y.*, +, *TSP 2020 5769-5781*

High-Dimensional Nonconvex Stochastic Optimization by Doubly Stochastic Successive Convex Approximation. *Mokhtari, A.*, +, *TSP 2020 6287-6302*



**Support vector machines**

- Analyzing Upper Bounds on Mean Absolute Errors for Deep Neural Network-Based Vector-to-Vector Regression. *Qi, J.*, +, *TSP 2020 3411-3422*
- Multi-Pattern Recognition Through Maximization of Signal-to-Peak-Interference Ratio With Application to Neural Spike Sorting. *Wouters, J.*, +, *TSP 2020 6240-6254*

**Surveillance**

- Topological Sweep for Multi-Target Detection of Geostationary Space Objects. *Liu, D.*, +, *TSP 2020 5166-5177*

**Switching circuits**

- Phased-Array Transmission for Secure mmWave Wireless Communication via Polygon Construction. *Zhang, X.*, +, *TSP 2020 327-342*

**Synchronization**

- A MIMO Version of the Reed-Yu Detector and Its Connection to the Wilks Lambda and Hotelling  $T^2$  Statistics. *Butler, R.W.*, +, *TSP 2020 2925-2934*
- Change Detection in Complex Dynamical Systems Using Intrinsic Phase and Amplitude Synchronization. *Iquebal, A.S.*, +, *TSP 2020 4743-4756*
- Consensus-Based Clock Synchronization in Wireless Sensor Networks With Truncated Exponential Delays. *Wang, H.*, +, *TSP 2020 1425-1438*
- Global Synchronization of Pulse-Coupled Oscillator Networks Under Byzantine Attacks. *Wang, Z.*, +, *TSP 2020 3158-3168*
- Optimal Sequential Estimation for Asynchronous Sampling Discrete-Time Systems. *Lin, H.*, +, *TSP 2020 6117-6127*

**Synthetic aperture radar**

- Doppler Shifting Technique for Generating Multi-Frames of Video SAR via Sub-Aperture Signal Processing. *Kim, C.K.*, +, *TSP 2020 3990-4001*
- Efficient Attributed Scatter Center Extraction Based on Image-Domain Sparse Representation. *Yang, D.*, +, *TSP 2020 4368-4381*

**T****Table lookup**

- Eigenvectors of Ordinary, Generalized, Centered and Offset Discrete Fourier Transforms Based on Lookup Table Methods: Efficiency and Approximation Uses. *Hsue, W.*, *TSP 2020 1776-1791*

**Target tracking**

- A Closed-Form Estimator for Bearings-Only Fusion of Heterogeneous Passive Sensors. *Arulampalam, S.*, +, *TSP 2020 6681-6695*
- A Closed-Form Prediction Update for Extended Target Tracking Using Random Matrices. *Bartlett, N.J.*, +, *TSP 2020 2404-2418*
- A Metric on the Space of Finite Sets of Trajectories for Evaluation of Multi-Target Tracking Algorithms. *Garcia-Fernandez, A.F.*, +, *TSP 2020 3917-3928*
- An Algebraic Closed-Form Solution for Bearings-Only Maneuvering Target Motion Analysis From a Nonmaneuvering Platform. *Badriasi, L.*, +, *TSP 2020 4672-4687*
- Continuous-Discrete Multiple Target Filtering: PMBM, PHD and CPHD Filter Implementations. *Garcia-Fernandez, A.F.*, +, *TSP 2020 1300-1314*
- Cooperative Detection by Multi-Agent Networks in the Presence of Position Uncertainty. *Gu, K.*, +, *TSP 2020 5411-5426*
- Direct Target Tracking by Distributed Gaussian Particle Filtering for Heterogeneous Networks. *Xia, W.*, +, *TSP 2020 1361-1373*
- Efficient and Unambiguous Two-Target Resolution via Subarray-Based Four-Channel Monopulse. *Wang, S.L.*, +, *TSP 2020 885-900*
- Efficient Closed-Form Solution for Moving Target Localization in MIMO Radars With Minimum Number of Antennas. *Noroozi, A.*, +, *TSP 2020 2545-2557*
- Fusion of Labeled RFS Densities With Minimum Information Loss. *Gao, L.*, +, *TSP 2020 5855-5868*
- MM-GLMB Filter-Based Sensor Control for Tracking Multiple Maneuvering Targets Hidden in the Doppler Blind Zone. *Wu, W.*, +, *TSP 2020 4555-4567*
- Multi-Target Detection With an Arbitrary Spacing Distribution. *Lan, T.*, +, *TSP 2020 1589-1601*
- On Arithmetic Average Fusion and Its Application for Distributed Multi-Bernoulli Multitarget Tracking. *Li, T.*, +, *TSP 2020 2883-2896*
- Optimal Resource Allocation for Asynchronous Multiple Targets Tracking in Heterogeneous Radar Networks. *Yan, J.*, +, *TSP 2020 4055-4068*

- Resource Scheduling for Distributed Multi-Target Tracking in Netted Colocated MIMO Radar Systems. *Yi, W.*, +, *TSP 2020 1602-1617*
- Tracking Multiple Maneuvering Targets Hidden in the DBZ Based on the MM-GLMB Filter. *Wu, W.*, +, *TSP 2020 2912-2924*
- Trajectory Poisson Multi-Bernoulli Filters. *Garcia-Fernandez, A.F.*, +, *TSP 2020 4933-4945*
- Tunable Adaptive Target Detection With Kernels in Colocated MIMO Radar. *Zaimbashi, A.*, +, *TSP 2020 1500-1514*

**Telecommunication channels**

- Cross Z-Complementary Pairs for Optimal Training in Spatial Modulation Over Frequency Selective Channels. *Liu, Z.*, +, *TSP 2020 1529-1543*

**Telecommunication computing**

- A Globally Optimal Energy-Efficient Power Control Framework and Its Efficient Implementation in Wireless Interference Networks. *Mathiesen, B.*, +, *TSP 2020 3887-3902*
- Accelerated Structure-Aware Reinforcement Learning for Delay-Sensitive Energy Harvesting Wireless Sensors. *Sharma, N.*, +, *TSP 2020 1409-1424*
- Distributed Linear Estimation Via a Roaming Token. *Balthazar, L.*, +, *TSP 2020 780-792*
- Fast Optimization With Zeroth-Order Feedback in Distributed, Multi-User MIMO Systems. *Bilenne, O.*, +, *TSP 2020 6085-6100*
- Gaussian Process Reinforcement Learning for Fast Opportunistic Spectrum Access. *Yan, Z.*, +, *TSP 2020 2613-2628*
- Learned Conjugate Gradient Descent Network for Massive MIMO Detection. *Wei, Y.*, +, *TSP 2020 6336-6349*
- Machine Learning at the Wireless Edge: Distributed Stochastic Gradient Descent Over-the-Air. *Mohammadi Amiri, M.*, +, *TSP 2020 2155-2169*
- Model-Free Learning of Optimal Ergodic Policies in Wireless Systems. *Kalogerias, D.S.*, +, *TSP 2020 6272-6286*
- On Analog Gradient Descent Learning Over Multiple Access Fading Channels. *Sery, T.*, +, *TSP 2020 2897-2911*
- On Maintaining Linear Convergence of Distributed Learning and Optimization Under Limited Communication. *Magnusson, S.*, +, *TSP 2020 6101-6116*
- Optimal Wireless Resource Allocation With Random Edge Graph Neural Networks. *Eisen, M.*, +, *TSP 2020 2977-2991*
- Robust Cell-Load Learning With a Small Sample Set. *Awan, D.A.*, +, *TSP 2020 270-283*
- Tune Smarter Not Harder: A Principled Approach to Tuning Learning Rates for Shallow Nets. *Tholeti, T.*, +, *TSP 2020 5063-5078*

**Telecommunication congestion control**

- Random Access Communication for Wireless Control Systems With Energy Harvesting Sensors. *Calvo-Fullana, M.*, +, *TSP 2020 3961-3975*

**Telecommunication control**

- A Globally Optimal Energy-Efficient Power Control Framework and Its Efficient Implementation in Wireless Interference Networks. *Mathiesen, B.*, +, *TSP 2020 3887-3902*
- Joint Subcarrier and Power Allocation in NOMA: Optimal and Approximate Algorithms. *Salaun, L.*, +, *TSP 2020 2215-2230*
- On Maintaining Linear Convergence of Distributed Learning and Optimization Under Limited Communication. *Magnusson, S.*, +, *TSP 2020 6101-6116*

**Telecommunication network reliability**

- A Node-Reliability Based CRC-Aided Successive Cancellation List Polar Decoder Architecture Combined With Post-Processing. *Lee, H.*, +, *TSP 2020 5954-5967*
- Compressive Sensing-Based Adaptive Active User Detection and Channel Estimation: Massive Access Meets Massive MIMO. *Ke, M.*, +, *TSP 2020 764-779*
- Phased-Array Transmission for Secure mmWave Wireless Communication via Polygon Construction. *Zhang, X.*, +, *TSP 2020 327-342*

**Telecommunication network routing**

- Decentralized Massive MIMO Processing Exploring Daisy-Chain Architecture and Recursive Algorithms. *Rodriguez Sanchez, J.*, +, *TSP 2020 687-700*

**Telecommunication network topology**

- Global Synchronization of Pulse-Coupled Oscillator Networks Under Byzantine Attacks. *Wang, Z.*, +, *TSP 2020 3158-3168*

**Telecommunication power management**

- Accelerated Structure-Aware Reinforcement Learning for Delay-Sensitive Energy Harvesting Wireless Sensors. *Sharma, N.*, +, *TSP 2020 1409-1424*

- Energy-Optimal Multiple Access Computation Offloading: Signalling Structure and Efficient Communication Resource Allocation. *Salmani, M.*, +, *TSP 2020 1646-1661*
- Multi-UAV Interference Coordination via Joint Trajectory and Power Control. *Shen, C.*, +, *TSP 2020 843-858*
- Power Allocation Schemes for Uplink Massive MIMO System in the Presence of Imperfect CSI. *Yu, X.*, +, *TSP 2020 5968-5982*
- Robust Beamforming for NOMA-Based Cellular Massive IoT With SWIPT. *Qi, Q.*, +, *TSP 2020 211-224*
- Telecommunication scheduling**
- Random Access Communication for Wireless Control Systems With Energy Harvesting Sensors. *Calvo-Fullana, M.*, +, *TSP 2020 3961-3975*
- Resource Scheduling for Distributed Multi-Target Tracking in Netted Colocated MIMO Radar Systems. *Yi, W.*, +, *TSP 2020 1602-1617*
- Telecommunication security**
- Algorithms for Globally-Optimal Secure Signaling Over Gaussian MIMO Wiretap Channels Under Interference Constraints. *Dong, L.*, +, *TSP 2020 4513-4528*
- Denial-of-Service Attacks on Communication Systems: Detectability and Jammer Knowledge. *Boche, H.*, +, *TSP 2020 3754-3768*
- Distributed Detection of Sparse Signals With Physical Layer Secrecy Constraints: A Falsified Censoring Strategy. *Li, C.*, +, *TSP 2020 6040-6054*
- Global Synchronization of Pulse-Coupled Oscillator Networks Under Byzantine Attacks. *Wang, Z.*, +, *TSP 2020 3158-3168*
- Large Intelligent Surface Aided Physical Layer Security Transmission. *Feng, B.*, +, *TSP 2020 5276-5291*
- Minimum Byzantine Effort for Blinding Distributed Detection in Wireless Sensor Networks. *Lin, H.*, +, *TSP 2020 647-661*
- Optimal Pilots for Anti-Eavesdropping Channel Estimation. *Zhu, Q.*, +, *TSP 2020 2629-2644*
- Optimal Sensor Placement for 2-D Range-Only Target Localization in Constrained Sensor Geometry. *Sadeghi, M.*, +, *TSP 2020 2316-2327*
- Phased-Array Transmission for Secure mmWave Wireless Communication via Polygon Construction. *Zhang, X.*, +, *TSP 2020 327-342*
- Spatial GNSS Spoofing Against Drone Swarms With Multiple Antennas and Wiener Filter. *Ceccato, M.*, +, *TSP 2020 5782-5794*
- Two-Dimensional Modular Chaotification System for Improving Chaos Complexity. *Hua, Z.*, +, *TSP 2020 1937-1949*
- Telecommunication signaling**
- Energy-Optimal Multiple Access Computation Offloading: Signalling Structure and Efficient Communication Resource Allocation. *Salmani, M.*, +, *TSP 2020 1646-1661*
- Telecommunication traffic**
- Nonsmooth Optimization Algorithms for Multicast Beamforming in Content-Centric Fog Radio Access Networks. *Nguyen, H.T.*, +, *TSP 2020 1455-1469*
- Temperature measurement**
- Bayesian Spatial Field Reconstruction With Unknown Distortions in Sensor Networks. *Xiang, Q.*, +, *TSP 2020 4336-4351*
- Tensors**
- A Low-Rank Tensor Dictionary Learning Method for Hyperspectral Image Denoising. *Gong, X.*, +, *TSP 2020 1168-1180*
- A Second-Order Method for Fitting the Canonical Polyadic Decomposition With Non-Least-Squares Cost. *Vandecappelle, M.*, +, *TSP 2020 4454-4465*
- A Tensor-Based Approach to Joint Channel Estimation/Data Detection in Flexible Multicarrier MIMO Systems. *Kofidis, E.*, *TSP 2020 3179-3193*
- Alternating Group Lasso for Block-Term Tensor Decomposition and Application to ECG Source Separation. *Goulart, J.H.d.M.*, +, *TSP 2020 2682-2696*
- Block-Randomized Stochastic Proximal Gradient for Low-Rank Tensor Factorization. *Fu, X.*, +, *TSP 2020 2170-2185*
- Guaranteed Recovery of One-Hidden-Layer Neural Networks via Cross Entropy. *Fu, H.*, +, *TSP 2020 3225-3235*
- Hyperspectral Super-Resolution With Coupled Tucker Approximation: Recoverability and SVD-Based Algorithms. *Prevost, C.*, +, *TSP 2020 931-946*
- Learning Mixtures of Separable Dictionaries for Tensor Data: Analysis and Algorithms. *Ghassemi, M.*, +, *TSP 2020 33-48*
- Learning Nonnegative Factors From Tensor Data: Probabilistic Modeling and Inference Algorithm. *Cheng, L.*, +, *TSP 2020 1792-1806*
- Multi-Set Low-Rank Factorizations With Shared and Unshared Components. *Sorensen, M.*, +, *TSP 2020 5122-5137*
- Spectrum Cartography via Coupled Block-Term Tensor Decomposition. *Zhang, G.*, +, *TSP 2020 3660-3675*
- Tensor Completion From Regular Sub-Nyquist Samples. *Kanatsoulis, C.I.*, +, *TSP 2020 1-16*
- Thermal noise**
- Target Detection With Imperfect Waveform Separation in Distributed MIMO Radar. *Wang, P.*, +, *TSP 2020 793-807*
- Time division multiple access**
- Energy-Optimal Multiple Access Computation Offloading: Signalling Structure and Efficient Communication Resource Allocation. *Salmani, M.*, +, *TSP 2020 1646-1661*
- Time measurement**
- Multistatic Moving Object Localization by a Moving Transmitter of Unknown Location and Offset. *Zhang, Y.*, +, *TSP 2020 4438-4453*
- Time series**
- A Statistical Time-Frequency Model for Non-stationary Time Series Analysis. *Luo, Y.*, +, *TSP 2020 4757-4772*
- Change Detection in Complex Dynamical Systems Using Intrinsic Phase and Amplitude Synchronization. *Iqbal, A.S.*, +, *TSP 2020 4743-4756*
- Efficient Generalized Boundary Detection Using a Sliding Information Distance. *Field, R.*, +, *TSP 2020 6394-6401*
- Fast Adaptive Gradient RBF Networks For Online Learning of Nonstationary Time Series. *Liu, T.*, +, *TSP 2020 2015-2030*
- Linear Multiple Low-Rank Kernel Based Stationary Gaussian Processes Regression for Time Series. *Yin, F.*, +, *TSP 2020 5260-5275*
- Multilabel Classification With Multivariate Time Series Predictors. *Che, Y.*, +, *TSP 2020 5696-5705*
- Multiple Change Points Detection in Low Rank and Sparse High Dimensional Vector Autoregressive Models. *Bai, P.*, +, *TSP 2020 3074-3089*
- Multitaper Analysis of Semi-Stationary Spectra From Multivariate Neuronal Spiking Observations. *Rupasinghe, A.*, +, *TSP 2020 4382-4396*
- NEWMA: A New Method for Scalable Model-Free Online Change-Point Detection. *Keriven, N.*, +, *TSP 2020 3515-3528*
- On the Sample Complexity of Graphical Model Selection From Non-Stationary Samples. *Tran, N.*, +, *TSP 2020 17-32*
- Student's t-VAR Modeling With Missing Data Via Stochastic EM and Gibbs Sampling. *Zhou, R.*, +, *TSP 2020 6198-6211*
- The Autoregressive Linear Mixture Model: A Time-Series Model for an Instantaneous Mixture of Network Processes. *Bohannon, A.W.*, +, *TSP 2020 4481-4496*
- Tractable Inference and Observation Likelihood Evaluation in Latent Structure Influence Models. *Karimi, S.*, +, *TSP 2020 5736-5745*
- Time-domain analysis**
- Turing Computability of Fourier Transforms of Bandlimited and Discrete Signals. *Boche, H.*, +, *TSP 2020 532-547*
- Time-frequency analysis**
- A Grant-Free Method for Massive Machine-Type Communication With Backward Activity Level Estimation. *Xiao, H.*, +, *TSP 2020 6665-6680*
- A Statistical Time-Frequency Model for Non-stationary Time Series Analysis. *Luo, Y.*, +, *TSP 2020 4757-4772*
- Blind Audio Source Separation With Minimum-Volume Beta-Divergence NMF. *Leplat, V.*, +, *TSP 2020 3400-3410*
- Efficient Attributed Scatter Center Extraction Based on Image-Domain Sparse Representation. *Yang, D.*, +, *TSP 2020 4368-4381*
- Frequency-Domain Prony Method for Autoregressive Model Identification and Sinusoidal Parameter Estimation. *Ando, S.*, *TSP 2020 3461-3470*
- Low-Rank Hankel Matrix Completion for Robust Time-Frequency Analysis. *Zhang, S.*, +, *TSP 2020 6171-6186*
- Novel Short-Time Fractional Fourier Transform: Theory, Implementation, and Applications. *Shi, J.*, +, *TSP 2020 3280-3295*
- Quadratic FM Signal Detection and Parameter Estimation Using Coherently Integrated Trilinear Autocorrelation Function. *Zhang, J.*, +, *TSP 2020 621-633*
- Real-Time Embedded EMG Signal Analysis for Wrist-Hand Pose Identification. *Raurale, S.A.*, +, *TSP 2020 2713-2723*

**Time-of-arrival estimation**

Joint Source and Sensor Localization by Angles of Arrival. *Le, T.*, +, *TSP 2020 6521-6534*

Localization of a Moving Source by Frequency Measurements. *Ahmed, M.M.*, +, *TSP 2020 4839-4854*

**Time-varying systems**

One-Step Prediction for Discrete Time-Varying Nonlinear Systems With Unknown Inputs and Correlated Noises. *Abolhasani, M.*, +, *TSP 2020 808-817*

**Toeplitz matrices**

Duhamel/Hollmann-Like Discrete Fourier Transform Algorithm With the Smallest Multiplicative Complexity Over a Finite Field. *Fedorenko, S.V.*, *TSP 2020 4813-4823*

Unraveling the Veil of Subspace RIP Through Near-Isometry on Subspaces. *Xu, X.*, +, *TSP 2020 3117-3131*

**Tomography**

A Variational Bayes Approach to Adaptive Radio Tomography. *Lee, D.*, +, *TSP 2020 3779-3792*

**Topology**

Distributed Nonlinear Estimation Over Unbalanced Directed Networks. *Meng, M.*, +, *TSP 2020 6212-6223*

Graph Signal Processing in the Presence of Topology Uncertainties. *Ceci, E.*, +, *TSP 2020 1558-1573*

Topological Signal Processing Over Simplicial Complexes. *Barbarossa, S.*, +, *TSP 2020 2992-3007*

**Tracking filters**

Optimal Resource Allocation for Asynchronous Multiple Targets Tracking in Heterogeneous Radar Networks. *Yan, J.*, +, *TSP 2020 4055-4068*

Trajectory Poisson Multi-Bernoulli Filters. *Garcia-Fernandez, A.F.*, +, *TSP 2020 4933-4945*

**Transforms**

Generalized Rational Variable Projection With Application in ECG Compression. *Kovacs, P.*, +, *TSP 2020 478-492*

Parametric Signal Estimation Using the Cumulative Distribution Transform. *Rubaiyat, A.H.M.*, +, *TSP 2020 3312-3324*

**Transient analysis**

Radio Transient Detection in Radio Astronomical Arrays. *Antman, A.*, +, *TSP 2020 5648-5663*

**Transient response**

A Note on BIBO Stability. *Unser, M.*, *TSP 2020 5904-5913*

A Unified Probabilistic View on Spatially Informed Source Separation and Extraction Based on Independent Vector Analysis. *Brendel, A.*, +, *TSP 2020 3545-3558*

Blind Interference Alignment With ISI: A New Look at OFDM for  $K$ -User Interference Channels. *Lee, B.*, +, *TSP 2020 4497-4512*

Performance Analysis of Deficient Length Quaternion Least Mean Square Adaptive Filters. *Xiang, M.*, +, *TSP 2020 65-80*

**Transmitting antennas**

Fast Optimization With Zeroth-Order Feedback in Distributed, Multi-User MIMO Systems. *Bilenne, O.*, +, *TSP 2020 6085-6100*

Massive MIMO Radar for Target Detection. *Fortunati, S.*, +, *TSP 2020 859-871*

Multi-Group Multicast Beamforming: Optimal Structure and Efficient Algorithms. *Dong, M.*, +, *TSP 2020 3738-3753*

Multi-Stage Antenna Selection for Adaptive Beamforming in MIMO Radar. *Nosrati, H.*, +, *TSP 2020 1374-1389*

**Transport processes**

Defining Fundamental Frequency for Almost Harmonic Signals. *Elvander, F.*, +, *TSP 2020 6453-6466*

**Tree data structures**

Distributed Detection of Sparse Stochastic Signals With 1-Bit Data in Tree-Structured Sensor Networks. *Li, C.*, +, *TSP 2020 2963-2976*

**Tree searching**

A Globally Optimal Energy-Efficient Power Control Framework and Its Efficient Implementation in Wireless Interference Networks. *Mathiesen, B.*, +, *TSP 2020 3887-3902*

**Turing machines**

Turing Computability of Fourier Transforms of Bandlimited and Discrete Signals. *Boche, H.*, +, *TSP 2020 532-547*

**U****Ultra wideband communication**

Two-Dimensional Z-Complementary Array Code Sets Based on Matrices of Generating Polynomials. *Das, S.*, +, *TSP 2020 5519-5532*

**Ultra wideband radar**

Joint Features Extraction for Multiple Moving Targets Using (Ultra-)Wideband FMCW Signals in the Presence of Doppler Ambiguity. *Xu, S.*, +, *TSP 2020 6562-6577*

**Uncertain systems**

Model-Based Robust Filtering and Experimental Design for Stochastic Differential Equation Systems. *Zhao, G.*, +, *TSP 2020 3849-3859*

**Underwater acoustic communication**

Soft Symbol Decoding in Sweep-Spread-Carrier Underwater Acoustic Communications: A Novel Variational Bayesian Algorithm and Its Analysis. *Arunkumar, K.P.*, +, *TSP 2020 2435-2448*

**Underwater optical wireless communication**

Sherman-Morrison Formula Aided Adaptive Channel Estimation for Underwater Visible Light Communication With Fractionally-Sampled OFDM. *Chen, J.*, +, *TSP 2020 2784-2798*

**Unsolicited e-mail**

Prospect Theory Based Crowdsourcing for Classification in the Presence of Spammers. *Geng, B.*, +, *TSP 2020 4083-4093*

**Unsupervised learning**

Scalable and Robust Community Detection With Randomized Sketching. *Rahmani, M.*, +, *TSP 2020 962-977*

Subspace Clustering Without Knowing the Number of Clusters: A Parameter Free Approach. *Menon, V.*, +, *TSP 2020 5047-5062*

**Utility theory**

Prospect Theoretic Utility Based Human Decision Making in Multi-Agent Systems. *Geng, B.*, +, *TSP 2020 1091-1104*

**V****Variational techniques**

Configuration Optimization and Channel Estimation in Hybrid Beamforming mmWave Systems With Channel Support Side Information. *Lian, L.*, +, *TSP 2020 6026-6039*

**Vector quantization**

High-Dimensional Stochastic Gradient Quantization for Communication-Efficient Edge Learning. *Du, Y.*, +, *TSP 2020 2128-2142*

**Vectors**

A Generalized Version of ACE and Performance Analysis. *Raghavan, R.S.*, *TSP 2020 2574-2585*

A MIMO Version of the Reed-Yu Detector and Its Connection to the Wilks Lambda and Hotelling  $T^2$  Statistics. *Butler, R.W.*, +, *TSP 2020 2925-2934*

A Unified Probabilistic View on Spatially Informed Source Separation and Extraction Based on Independent Vector Analysis. *Brendel, A.*, +, *TSP 2020 3545-3558*

Algorithms for Change Detection With Sparse Signals. *Jain, A.*, +, *TSP 2020 1331-1345*

Asymptotic Performance of Discrete-Valued Vector Reconstruction via Box-Constrained Optimization With Sum of  $\ell_1$  Regularizers. *Hayakawa, R.*, +, *TSP 2020 4320-4335*

Augmented Space Linear Models. *Qin, Z.*, +, *TSP 2020 2724-2738*

Blind Community Detection From Low-Rank Excitations of a Graph Filter. *Wai, H.*, +, *TSP 2020 436-451*

Deviance Tests for Graph Estimation From Multi-Attribute Gaussian Data. *Tugnait, J.K.*, *TSP 2020 5632-5647*

Distributed Constrained Online Learning. *Paternain, S.*, +, *TSP 2020 3486-3499*

Exact and Robust Reconstructions of Integer Vectors Based on Multidimensional Chinese Remainder Theorem (MD-CRT). *Xiao, L.*, +, *TSP 2020 5349-5364*

Nonsmooth Optimization Algorithms for Multicast Beamforming in Content-Centric Fog Radio Access Networks. *Nguyen, H.T.*, +, *TSP 2020 1455-1469*

On the Convergence of a Bayesian Algorithm for Joint Dictionary Learning and Sparse Recovery. *Joseph, G.*, +, *TSP 2020 343-358*

On the Max-Min Fairness of BeamSpace MIMO-NOMA. *Jiao, R.*, +, *TSP 2020 4919-4932*

Online Data Dimensionality Reduction and Reconstruction Using Graph Filtering. *Schizas, I.D.*, *TSP 2020 3871-3886*

Performance Analysis of Deficient Length Quaternion Least Mean Square Adaptive Filters. *Xiang, M.*, +, *TSP 2020 65-80*

Phased-Array Transmission for Secure mmWave Wireless Communication via Polygon Construction. *Zhang, X.*, +, *TSP 2020 327-342*

Stability Analysis of  $\ell_{0,\infty}$ -Norm Based Convolutional Sparse Coding Using Stripe Coherence. *Fu, Y.*, +, *TSP 2020 5810-5823*

Topological Signal Processing Over Simplicial Complexes. *Barbarossa, S.*, +, *TSP 2020 2992-3007*

Variable Step-Size Widely Linear Complex-Valued Affine Projection Algorithm and Performance Analysis. *Shi, L.*, +, *TSP 2020 5940-5953*

#### **Vehicular ad hoc networks**

Cloud-Assisted Cooperative Localization for Vehicle Platoons: A Turbo Approach. *Liu, A.*, +, *TSP 2020 605-620*

NOMA-Aided UAV Communications over Correlated Rician Shadowed Fading Channels. *Ernest, T.Z.H.*, +, *TSP 2020 3103-3116*

#### **Video coding**

Generative Models for Low-Dimensional Video Representation and Reconstruction. *Hyder, R.*, +, *TSP 2020 1688-1701*

#### **Video signal processing**

Generative Models for Low-Dimensional Video Representation and Reconstruction. *Hyder, R.*, +, *TSP 2020 1688-1701*

Multilabel Classification With Multivariate Time Series Predictors. *Che, Y.*, +, *TSP 2020 5696-5705*

#### **Viterbi decoding**

Iterative and Adjustable Soft List Decoding for Polar Codes. *Feng, B.*, +, *TSP 2020 5559-5572*

## **W**

#### **Waveform analysis**

Adaptive Virtual Waveform Design for Millimeter-Wave Joint Communication-Radar. *Kumari, P.*, +, *TSP 2020 715-730*

#### **Wavelet transforms**

Efficient Generalized Boundary Detection Using a Sliding Information Distance. *Field, R.*, +, *TSP 2020 6394-6401*

Novel Fractional Wavelet Packet Transform: Theory, Implementation, and Applications. *Shi, J.*, +, *TSP 2020 4041-4054*

Wavelet Based Multivariate Signal Denoising Using Mahalanobis Distance and EDF Statistics. *Naveed, K.*, +, *TSP 2020 5997-6010*

#### **White noise**

A Generalized Version of ACE and Performance Analysis. *Raghavan, R.S.*, *TSP 2020 2574-2585*

Exact Blind Community Detection From Signals on Multiple Graphs. *Roddenberry, T.M.*, +, *TSP 2020 5016-5030*

Generating Sparse Stochastic Processes Using Matched Splines. *Dadi, L.*, +, *TSP 2020 4397-4406*

Quadratic FM Signal Detection and Parameter Estimation Using Coherently Integrated Trilinear Autocorrelation Function. *Zhang, J.*, +, *TSP 2020 621-633*

Subspace-Based Near-Field Source Localization in Unknown Spatially Non-uniform Noise Environment. *Zuo, W.*, +, *TSP 2020 4713-4726*

#### **Wiener filters**

Spatial GNSS Spoofing Against Drone Swarms With Multiple Antennas and Wiener Filter. *Ceccato, M.*, +, *TSP 2020 5782-5794*

#### **Wireless channels**

A Block Sparsity Based Estimator for mmWave Massive MIMO Channels With Beam Squint. *Wang, M.*, +, *TSP 2020 49-64*

A Framework of Robust Transmission Design for IRS-Aided MISO Communications With Imperfect Cascaded Channels. *Zhou, G.*, +, *TSP 2020 5092-5106*

A Tensor-Based Approach to Joint Channel Estimation/Data Detection in Flexible Multicarrier MIMO Systems. *Kofidis, E.*, *TSP 2020 3179-3193*

Compressive Sensing-Based Adaptive Active User Detection and Channel Estimation: Massive Access Meets Massive MIMO. *Ke, M.*, +, *TSP 2020 764-779*

Configuration Optimization and Channel Estimation in Hybrid Beamforming mmWave Systems With Channel Support Side Information. *Lian, L.*, +, *TSP 2020 6026-6039*

Cooperative Activity Detection: Sourced and Unsourced Massive Random Access Paradigms. *Shao, X.*, +, *TSP 2020 6578-6593*

Denial-of-Service Attacks on Communication Systems: Detectability and Jammer Knowledge. *Boche, H.*, +, *TSP 2020 3754-3768*

Distributed Sequential Detection: Dependent Observations and Imperfect Communication. *Zhang, S.*, +, *TSP 2020 830-842*

Joint Channel and Location Estimation of Massive MIMO System With Phase Noise. *Zheng, X.*, +, *TSP 2020 2598-2612*

Joint Subcarrier and Power Allocation in NOMA: Optimal and Approximate Algorithms. *Salaun, L.*, +, *TSP 2020 2215-2230*

Joint Transmit Beamforming for Multiuser MIMO Communications and MIMO Radar. *Liu, X.*, +, *TSP 2020 3929-3944*

Machine Learning at the Wireless Edge: Distributed Stochastic Gradient Descent Over-the-Air. *Mohammadi Amiri, M.*, +, *TSP 2020 2155-2169*

Model-Driven Deep Learning for MIMO Detection. *He, H.*, +, *TSP 2020 1702-1715*

Multi-Channel Factor Analysis With Common and Unique Factors. *Ramirez, D.*, +, *TSP 2020 113-126*

Multi-Stage Antenna Selection for Adaptive Beamforming in MIMO Radar. *Nosrati, H.*, +, *TSP 2020 1374-1389*

Multi-UAV Interference Coordination via Joint Trajectory and Power Control. *Shen, C.*, +, *TSP 2020 843-858*

New Viewpoint and Algorithms for Water-Filling Solutions in Wireless Communications. *Xing, C.*, +, *TSP 2020 1618-1634*

Optimal Pilots for Anti-Eavesdropping Channel Estimation. *Zhu, Q.*, +, *TSP 2020 2629-2644*

Partially Coherent Compressive Phase Retrieval for Millimeter-Wave Massive MIMO Channel Estimation. *Hu, C.*, +, *TSP 2020 1673-1687*

Phased-Array Transmission for Secure mmWave Wireless Communication via Polygon Construction. *Zhang, X.*, +, *TSP 2020 327-342*

Random Access Communication for Wireless Control Systems With Energy Harvesting Sensors. *Calvo-Fullana, M.*, +, *TSP 2020 3961-3975*

Robust SINR-Constrained Symbol-Level Multiuser Precoding With Imperfect Channel Knowledge. *Haqiqatnejad, A.*, +, *TSP 2020 1837-1852*

Spectral Efficiency and Energy Efficiency Tradeoff in Massive MIMO Downlink Transmission With Statistical CSIT. *You, L.*, +, *TSP 2020 2645-2659*

#### **Wireless LAN**

Adaptive Virtual Waveform Design for Millimeter-Wave Joint Communication-Radar. *Kumari, P.*, +, *TSP 2020 715-730*

Cooperative Activity Detection: Sourced and Unsourced Massive Random Access Paradigms. *Shao, X.*, +, *TSP 2020 6578-6593*

#### **Wireless sensor networks**

3-D Distributed Localization With Mixed Local Relative Measurements. *Fang, X.*, +, *TSP 2020 5869-5881*

A Variational Bayes Approach to Adaptive Radio Tomography. *Lee, D.*, +, *TSP 2020 3779-3792*

Accelerated Structure-Aware Reinforcement Learning for Delay-Sensitive Energy Harvesting Wireless Sensors. *Sharma, N.*, +, *TSP 2020 1409-1424*

Alternating Minimization Based First-Order Method for the Wireless Sensor Network Localization Problem. *Gur, E.*, +, *TSP 2020 6418-6431*

Bayesian Spatial Field Reconstruction With Unknown Distortions in Sensor Networks. *Xiang, Q.*, +, *TSP 2020 4336-4351*

Consensus-Based Clock Synchronization in Wireless Sensor Networks With Truncated Exponential Delays. *Wang, H.*, +, *TSP 2020 1425-1438*

Cooperative Activity Detection: Sourced and Unsourced Massive Random Access Paradigms. *Shao, X.*, +, *TSP 2020 6578-6593*

Direct Target Tracking by Distributed Gaussian Particle Filtering for Heterogeneous Networks. *Xia, W.*, +, *TSP 2020 1361-1373*

Distributed Detection of Sparse Signals With Physical Layer Secrecy Constraints: A Falsified Censoring Strategy. *Li, C.*, +, *TSP 2020 6040-6054*

Distributed Linear Estimation Via a Roaming Token. *Balthazar, L.*, +, *TSP 2020 780-792*

Distributed Sensing With Orthogonal Multiple Access: To Code or not to Code?. *Dong, Y.*, *TSP 2020 1315-1330*

Distributed Sequential Detection: Dependent Observations and Imperfect Communication. *Zhang, S.*, +, *TSP 2020 830-842*

Dynamic Sensor Subset Selection for Centralized Tracking of an IID Process. *Chattopadhyay, A.*, +, *TSP 2020 3209-3224*

Global Synchronization of Pulse-Coupled Oscillator Networks Under Byzantine Attacks. *Wang, Z.*, +, *TSP 2020 3158-3168*

Group Sparsity Based Localization for Far-Field and Near-Field Sources Based on Distributed Sensor Array Networks. *Shen, Q.*, +, *TSP 2020 6493-6508*

Minimum Byzantine Effort for Blinding Distributed Detection in Wireless Sensor Networks. *Lin, H.*, +, *TSP 2020 647-661*

On Optimality of Weighted Multidimensional Scaling for Range-Based Localization. *Wei, H.*, +, *TSP 2020 2105-2113*

Random Access Communication for Wireless Control Systems With Energy Harvesting Sensors. *Calvo-Fullana, M.*, +, *TSP 2020 3961-3975*

Sparse Robust Learning From Flipped Bits. *Liu, Z.*, +, *TSP 2020 4407-4421*

Target Localization by Unlabeled Range Measurements. *Wang, G.*, +, *TSP 2020 6607-6620*

## X

### **X-ray detection**

Measurement of Power Density at Zero Frequency With a Trend Compensation. *Kim, D.S.*, *TSP 2020 1964-1973*

### **X-ray imaging**

Measurement of Power Density at Zero Frequency With a Trend Compensation. *Kim, D.S.*, *TSP 2020 1964-1973*

Source Separation With Side Information Based on Gaussian Mixture Models With Application in Art Investigation. *Sabetsarvestani, Z.*, +, *TSP 2020 558-572*