

# 2020 Index

## IEEE Transactions on Computational Imaging

### Vol. 1

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

- Abbosh, A.M.,** *see* Brankovic, A., *TCI* 2020 1595-1606
- Abdollahi, N.,** Jeffrey, I., and LoVetri, J., Improved Tumor Detection via Quantitative Microwave Breast Imaging Using Eigenfunction-Based Prior; *TCI* 2020 1194-1202
- Abergel, A.,** *see* Hadj-Youcef, M.A., *TCI* 2020 922-933
- Achim, A.,** *see* Kim, J., *TCI* 2020 993-1006
- Agarwal, K.,** *see* Zhang, L., *TCI* 2020 1106-1116
- Agarwal, K.,** *see* Ye, X., *TCI* 2020 1486-1492
- Ahmed, A.,** *see* Asim, M., *TCI* 2020 1493-1506
- Akcakaya, M.,** *see* Yaman, B., *TCI* 2020 194-207
- Allain, P.,** Guillo, L., and Guillemot, C., Four-Dimensional Anisotropic Diffusion Framework With PDEs for Light Field Regularization and Inverse Problems; *TCI* 2020 109-124
- Almatrafi, M.,** and Hirakawa, K., DAViS Camera Optical Flow; *TCI* 2020 396-407
- Altmann, Y.,** *see* Tachella, J., *TCI* 2020 208-220
- Altmann, Y.,** *see* Legros, Q., *TCI* 2020 1033-1043
- Aly, H.A.,** *see* Awad, M., *TCI* 2020 408-418
- An, P.,** *see* Liu, D., *TCI* 2020 1507-1522
- Arce, G.R.,** *see* Salazar, E., *TCI* 2020 764-777
- Arce, G.R.,** *see* Zhang, H., *TCI* 2020 749-763
- Arce, G.R.,** *see* Mao, T., *TCI* 2020 73-86
- Arce, G.R.,** *see* Wang, Z., *TCI* 2020 981-992
- Arguello, H.,** *see* Jerez, A., *TCI* 2020 934-944
- Arguello-Fuentes, H.,** *see* Tachella, J., *TCI* 2020 208-220
- Asif, A.,** *see* Goudarzi, S., *TCI* 2020 1272-1284
- Asim, M.,** Shamshad, F., and Ahmed, A., Blind Image Deconvolution Using Deep Generative Priors; *TCI* 2020 1493-1506
- Awad, M.,** Elliethy, A., and Aly, H.A., Adaptive Near-Infrared and Visible Fusion for Fast Image Enhancement; *TCI* 2020 408-418
- Ayoub, A.,** *see* Pham, T., *TCI* 2020 727-738

##### B

- Bahadir, C.D.,** Wang, A.Q., Dalca, A.V., and Sabuncu, M.R., Deep-Learning-Based Optimization of the Under-Sampling Pattern in MRI; *TCI* 2020 1139-1152
- Bai, M.,** *see* Ye, X., *TCI* 2020 1486-1492
- Baraniuk, R.G.,** *see* Sharma, M.K., *TCI* 2020 95-108
- Basarab, A.,** *see* Kim, J., *TCI* 2020 993-1006
- Batenburg, K.J.,** *see* Lagerwerf, M.J., *TCI* 2020 739-748
- Batenburg, K.J.,** *see* Hendriksen, A.A., *TCI* 2020 1320-1335
- Benoudiba-Campanini, T.,** Giovannelli, J., and Minvielle, P., SPRITE: 3-D SParse Radar Imaging TEchnique; *TCI* 2020 1059-1069

- Bermudez, J.C.M.,** *see* Borsoi, R.A., *TCI* 2020 374-384
- Berne, O.,** *see* Guilloteau, C., *TCI* 2020 1362-1374
- Bertrand, N.P.,** *see* Lee, J., *TCI* 2020 1219-1232
- Bialkowski, K.,** *see* Brankovic, A., *TCI* 2020 1595-1606
- Bian, Z.,** *see* Zhang, Y., *TCI* 2020 1375-1388
- Bioucas-Dias, J.,** *see* Halimi, A., *TCI* 2020 138-152
- Bioucas-Dias, J.M.,** *see* Felicio, J.M., *TCI* 2020 167-180
- Borsoi, R.A.,** Imbiriba, T., and Bermudez, J.C.M., Deep Generative Endmember Modeling: An Application to Unsupervised Spectral Unmixing; *TCI* 2020 374-384
- Bosch, J.G.,** *see* van der Meulen, P., *TCI* 2020 358-373
- Bostan, E.,** *see* Kellman, M., *TCI* 2020 1403-1414
- Boufounos, P.T.,** *see* Kadu, A., *TCI* 2020 1523-1536
- Bouman, C.A.,** *see* Pellizzari, C.J., *TCI* 2020 1607-1621
- Bouzerdoum, A.,** *see* Tivive, F.H.C., *TCI* 2020 221-234
- Brankovic, A.,** Zamani, A., Trakic, A., Bialkowski, K., Mohammed, B., Cook, D., Walsham, J., and Abbosh, A.M., Unsupervised Algorithm for Brain Anomalies Localization in Electromagnetic Imaging; *TCI* 2020 1595-1606
- Brideson, M.,** *see* Phair, A., *TCI* 2020 558-568
- Buller, G.S.,** *see* Halimi, A., *TCI* 2020 138-152

##### C

- Cao, Y.,** *see* Zhou, Y., *TCI* 2020 894-907
- Cebreiro, J.,** *see* Tarpa, C., *TCI* 2020 958-967
- Chan, S.H.,** *see* Mao, Z., *TCI* 2020 1415-1428
- Chan, S.H.,** *see* Elgendi, O.A., *TCI* 2020 652-665
- Chan, S.H.,** *see* GnanaSambandam, A., *TCI* 2020 1571-1585
- Chang, S.,** *see* Lim, S., *TCI* 2020 1127-1138
- Chen, H.,** Liu, W., Goel, R., Lua, R.C., Mittal, S., Huang, Y., Veeraraghavan, A., and Patel, A.B., Fast Retinomorphic Event-Driven Representations for Video Gameplay and Action Recognition; *TCI* 2020 276-290
- Chen, J.,** *see* Yan, L., *TCI* 2020 1070-1081
- Chen, Q.,** *see* Zhang, J., *TCI* 2020 697-710
- Chen, Q.,** *see* Mao, T., *TCI* 2020 73-86
- Chen, R.,** *see* Wang, Z., *TCI* 2020 981-992
- Chen, X.,** *see* Ye, X., *TCI* 2020 1486-1492
- Chen, Y.,** *see* Quan, Y., *TCI* 2020 778-790
- Chen, Y.,** Jiang, G., Yu, M., Yang, Y., and Ho, Y., Learning Stereo High Dynamic Range Imaging From A Pair of Cameras With Different Exposure Parameters; *TCI* 2020 1044-1058
- Chen, Y.,** *see* Hu, D., *TCI* 2020 477-490
- Chen, Z.,** *see* Jagatap, G., *TCI* 2020 344-357
- Chen, Z.,** *see* Huang, Z., *TCI* 2020 1203-1218
- Cheng, W.,** Wang, Y., Li, H., and Duan, Y., Learned Full-Sampling Reconstruction From Incomplete Data; *TCI* 2020 945-957
- Chimitt, N.,** *see* Mao, Z., *TCI* 2020 1415-1428
- Chowdhury, S.R.,** *see* Song, T., *TCI* 2020 518-528
- Chung, H.,** *see* Oh, G., *TCI* 2020 1285-1296
- Coatrieux, G.,** *see* Hu, D., *TCI* 2020 477-490
- Cook, D.,** *see* Brankovic, A., *TCI* 2020 1595-1606
- Cossairt, O.,** *see* Sharma, M.K., *TCI* 2020 95-108
- Costa, J.R.,** *see* Felicio, J.M., *TCI* 2020 167-180
- Crozier, S.,** *see* Phair, A., *TCI* 2020 558-568
- Cuadros, A.P.,** *see* Mao, T., *TCI* 2020 73-86

##### D

- Da, F.,** *see* Yu, Y., *TCI* 2020 1007-1016
- Dalca, A.V.,** *see* Bahadir, C.D., *TCI* 2020 1139-1152

- David, P.**, Le Pendu, M., and Guillemot, C., Scene Flow Estimation From Sparse Light Fields Using a Local 4D Affine Model; *TCI 2020* 791-805  
**Davies, M.**, *see* Tang, J., *TCI 2020* 1471-1485  
**Delgado-Friedrichs, O.**, Kingston, A.M., Latham, S.J., Myers, G.R., and Shepard, A.P., PI-Line Difference for Alignment and Motion-Correction of Cone-Beam Helical-Trajectory Micro-Tomography Data; *TCI 2020* 24-33  
**Deligiannis, N.**, *see* Song, P., *TCI 2020* 57-72  
**Deng, X.**, *see* Song, P., *TCI 2020* 57-72  
**Dobigeon, N.**, *see* Guilloteau, C., *TCI 2020* 1362-1374  
**Dong, F.**, *see* Ren, S., *TCI 2020* 1336-1350  
**Dragotti, P.L.**, *see* Song, P., *TCI 2020* 57-72  
**Dragotti, P.L.**, *see* Song, P., *TCI 2020* 1017-1032  
**Duan, Y.**, *see* Cheng, W., *TCI 2020* 945-957  
**Dutta, J.**, *see* Song, T., *TCI 2020* 518-528  
**Dutta, P.K.**, *see* Kumar, S., *TCI 2020* 857-867

**E**

- Egiazarian, K.**, *see* Tang, J., *TCI 2020* 1471-1485  
**El-Khamy, M.**, *see* Ren, H., *TCI 2020* 447-462  
**Eldar, Y.C.**, *see* Li, Y., *TCI 2020* 666-681  
**Elgendy, O.A.**, and Chan, S.H., Color Filter Arrays for Quanta Image Sensors; *TCI 2020* 652-665  
**Ellithy, A.**, *see* Awad, M., *TCI 2020* 408-418  
**Endo, K.**, *see* Yoshida, M., *TCI 2020* 463-476  
**Ernst, A.**, *see* Mariani, O., *TCI 2020* 385-395  
**Evers, A.**, and Jackson, J.A., Generalized Phase Gradient Autofocus Using Semidefinite Relaxation Phase Estimation; *TCI 2020* 291-303  
**Eyraud, C.**, *see* Sorsa, L., *TCI 2020* 579-590

**F**

- Fan, F.**, Li, M., Teng, Y., and Wang, G., Soft Autoencoder and Its Wavelet Adaptation Interpretation; *TCI 2020* 1245-1257  
**Fei, Y.**, *see* Shao, F., *TCI 2020* 1622-1635  
**Felicio, J.M.**, Bioucas-Dias, J.M., Costa, J.R., and Fernandes, C.A., Microwave Breast Imaging Using a Dry Setup; *TCI 2020* 167-180  
**Felsner, L.**, Kaepller, S., Maier, A., and Riess, C., Truncation Correction for X-ray Phase-Contrast Region-of-Interest Tomography; *TCI 2020* 625-639  
**Fernandes, C.A.**, *see* Felicio, J.M., *TCI 2020* 167-180  
**Fessler, J.A.**, *see* Lin, C.Y., *TCI 2020* 1451-1458  
**Fessler, J.A.**, *see* Moore, B.E., *TCI 2020* 153-166  
**Folden, J.**, *see* Henderson, K., *TCI 2020* 529-543  
**Forbes, L.K.**, *see* Phair, A., *TCI 2020* 558-568  
**Foust, A.J.**, *see* Song, P., *TCI 2020* 1017-1032  
**Fraysse, A.**, *see* Hadj-Youcef, M.A., *TCI 2020* 922-933  
**Fu, Q.**, *see* Qiu, W., *TCI 2020* 263-275

**G**

- Ge, R.**, *see* Hu, D., *TCI 2020* 477-490  
**Geng, J.**, *see* Li, Y., *TCI 2020* 666-681  
**Ghani, M.U.**, and Karl, W.C., Fast Enhanced CT Metal Artifact Reduction Using Data Domain Deep Learning; *TCI 2020* 181-193  
**Gilton, D.**, Ongie, G., and Willett, R., Neumann Networks for Linear Inverse Problems in Imaging; *TCI 2020* 328-343  
**Giovannelli, J.**, *see* Benoudiba-Campanini, T., *TCI 2020* 1059-1069  
**Girish, S.**, *see* Vadathya, A.K., *TCI 2020* 304-316  
**Gnanasambandam, A.**, and Chan, S.H., HDR Imaging With Quanta Image Sensors: Theoretical Limits and Optimal Reconstruction; *TCI 2020* 1571-1585  
**Goel, R.**, *see* Chen, H., *TCI 2020* 276-290  
**Golbabaei, M.**, *see* Tang, J., *TCI 2020* 1471-1485  
**Goudarzi, S.**, Asif, A., and Rivaz, H., Fast Multi-Focus Ultrasound Image Recovery Using Generative Adversarial Networks; *TCI 2020* 1272-1284

+ Check author entry for coauthors

- Grosche, S.**, Koller, M., Seiler, J., and Kaup, A., Dynamic Image Sampling Using a Novel Variance Based Probability Mass Function; *TCI 2020* 1440-1450

- Grosser, M.**, Moddel, M., and Knopp, T., Using Low-Rank Tensors for the Recovery of MPI System Matrices; *TCI 2020* 1389-1402

- Guillemot, C.**, *see* David, P., *TCI 2020* 791-805

- Guillemot, C.**, *see* Allain, P., *TCI 2020* 109-124

- Guillo, L.**, *see* Allain, P., *TCI 2020* 109-124

- Guilloteau, C.**, Oberlin, T., Berne, O., and Dobigeon, N., Hyperspectral and Multispectral Image Fusion Under Spectrally Varying Spatial Blurs – Application to High Dimensional Infrared Astronomical Imaging; *TCI 2020* 1362-1374

- Guo, Y.**, *see* Hou, R., *TCI 2020* 640-651

- Guo, Y.**, *see* Yu, Y., *TCI 2020* 1007-1016

- Gurbuz, A.C.**, *see* Mdafi, R., *TCI 2020* 818-829

**H**

- Hadj-Youcef, M.A.**, Orieux, F., Abergel, A., and Fraysse, A., Fast Joint Multi-band Reconstruction From Wideband Images Based on Low-Rank Approximation; *TCI 2020* 922-933

- Halimi, A.**, Tobin, R., McCarthy, A., Bioucas-Dias, J., McLaughlin, S., and Buller, G.S., Robust Restoration of Sparse Multidimensional Single-Photon LiDAR Images; *TCI 2020* 138-152

- Hamamoto, T.**, *see* Honda, T., *TCI 2020* 248-262

- Hambardé, P.**, and Murala, S., S2DNet: Depth Estimation From Single Image and Sparse Samples; *TCI 2020* 806-817

- He, C.**, *see* Wang, W., *TCI 2020* 1548-1560

- He, W.**, *see* Mao, T., *TCI 2020* 73-86

- Hegde, C.**, *see* Jagatap, G., *TCI 2020* 344-357

- Henderson, K.**, Liu, X., Folden, J., Tilmon, B., Jayasuriya, S., and Koppal, S., Design and Calibration of a Fast Flying-Dot Projector for Dynamic Light Transport Acquisition; *TCI 2020* 529-543

- Hendriksen, A.A.**, Pelt, D.M., and Batenburg, K.J., Noise2Inverse: Self-Supervised Deep Convolutional Denoising for Tomography; *TCI 2020* 1320-1335

- Herring, J.L.**, Nagy, J., and Ruthotto, L., Gauss–Newton Optimization for Phase Recovery From the Bispectrum; *TCI 2020* 235-247

- Hirakawa, K.**, *see* Almatrafi, M., *TCI 2020* 396-407

- Ho, Y.**, *see* Chen, Y., *TCI 2020* 1044-1058

- Ho, Y.**, *see* Shao, F., *TCI 2020* 1622-1635

- Honda, T.**, Sugimura, D., and Hamamoto, T., Multi-Frame RGB/NIR Imaging for Low-Light Color Image Super-Resolution; *TCI 2020* 248-262

- Hou, R.**, Zhou, D., Nie, R., Liu, D., Xiong, L., Guo, Y., and Yu, C., VIF-Net: An Unsupervised Framework for Infrared and Visible Image Fusion; *TCI 2020* 640-651

- Howe, C.L.**, *see* Song, P., *TCI 2020* 1017-1032

- Hu, D.**, Wu, W., Xu, M., Zhang, Y., Liu, J., Ge, R., Chen, Y., Luo, L., and Coatrieux, G., SISTER: Spectral-Image Similarity-Based Tensor With Enhanced-Sparsity Reconstruction for Sparse-View Multi-Energy CT; *TCI 2020* 477-490

- Hu, Z.**, *see* Huang, Z., *TCI 2020* 1203-1218

- Huang, H.**, *see* Zhu, Z., *TCI 2020* 125-137

- Huang, H.**, Liu, Y., Long, Z., and Zhu, C., Robust Low-Rank Tensor Ring Completion; *TCI 2020* 1117-1126

- Huang, Y.**, *see* Liu, D., *TCI 2020* 1507-1522

- Huang, Y.**, Quan, Y., Xu, Y., and Ji, H., Removing Reflection From a Single Image With Ghosting Effect; *TCI 2020* 34-45

- Huang, Y.**, *see* Chen, H., *TCI 2020* 276-290

- Huang, Z.**, Chen, Z., Zhang, Q., Quan, G., Ji, M., Zhang, C., Yang, Y., Liu, X., Liang, D., Zheng, H., and Hu, Z., CaGAN: A Cycle-Consistent Generative Adversarial Network With Attention for Low-Dose CT Imaging; *TCI 2020* 1203-1218

**I**

- Imbiriba, T.**, *see* Borsoi, R.A., *TCI 2020* 374-384

**J**

- Jackson, J.A.**, *see* Evers, A., *TCI* 2020 291-303  
**Jadan, H.V.**, *see* Song, P., *TCI* 2020 1017-1032  
**Jagatap, G.**, Chen, Z., Nayer, S., Hegde, C., and Vaswani, N., Sample Efficient Fourier Ptychography for Structured Data; *TCI* 2020 344-357  
**Jayasuriya, S.**, *see* Henderson, K., *TCI* 2020 529-543  
**Jeffrey, I.**, *see* Abdollahi, N., *TCI* 2020 1194-1202  
**Jerez, A.**, Pinilla, S., and Arguello, H., Fast Target Detection via Template Matching in Compressive Phase Retrieval; *TCI* 2020 934-944  
**Ji, H.**, *see* Quan, Y., *TCI* 2020 778-790  
**Ji, H.**, *see* Huang, Y., *TCI* 2020 34-45  
**Ji, L.**, *see* Xu, S., *TCI* 2020 1561-1570  
**Ji, M.**, *see* Huang, Z., *TCI* 2020 1203-1218  
**Jiang, G.**, *see* Chen, Y., *TCI* 2020 1044-1058  
**Jiang, J.**, Sun, H., Liu, X., and Ma, J., Learning Spatial-Spectral Prior for Super-Resolution of Hyperspectral Imagery; *TCI* 2020 1082-1096  
**Jiang, M.**, *see* Xu, J., *TCI* 2020 604-614  
**Jiang, Q.**, *see* Zhou, W., *TCI* 2020 883-893  
**Jiang, Q.**, *see* Shao, F., *TCI* 2020 1622-1635  
**Jin, H.**, Liu, S., Zhang, R., Liu, S., and Zheng, Y., Frequency Domain Based Virtual Detector for Heterogeneous Media in Photoacoustic Imaging; *TCI* 2020 569-578  
**Jin, H.**, Zheng, Z., Liu, S., Zhang, R., Liao, X., Liu, S., and Zheng, Y., Pre-migration: A General Extension for Photoacoustic Imaging Reconstruction; *TCI* 2020 1097-1105  
**Jin, J.**, *see* Phair, A., *TCI* 2020 558-568

**K**

- Kadlec, P.**, and Marek, M., Microwave Imaging Using Optimization With Variable Number of Dimensions; *TCI* 2020 1586-1594  
**Kadu, A.**, and van Leeuwen, T., A Convex Formulation for Binary Tomography; *TCI* 2020 1-11  
**Kadu, A.**, Mansour, H., and Boufounos, P.T., High-Contrast Reflection Tomography With Total-Variation Constraints; *TCI* 2020 1523-1536  
**Kaepller, S.**, *see* Felsner, L., *TCI* 2020 625-639  
**Kalepu, Y.**, *see* Sanghvi, Y., *TCI* 2020 46-56  
**Kaloorazi, M.**, *see* Yan, L., *TCI* 2020 1070-1081  
**Kamilov, U.S.**, *see* Sun, Y., *TCI* 2020 908-921  
**Kargas, N.**, *see* Yaman, B., *TCI* 2020 194-207  
**Karl, W.C.**, *see* Ghani, M.U., *TCI* 2020 181-193  
**Kaup, A.**, *see* Grosche, S., *TCI* 2020 1440-1450  
**Kellman, M.**, Zhang, K., Markley, E., Tamir, J., Bostan, E., Lustig, M., and Waller, L., Memory-Efficient Learning for Large-Scale Computational Imaging; *TCI* 2020 1403-1414  
**Khankhoje, U.K.**, *see* Sanghvi, Y., *TCI* 2020 46-56  
**Kim, J.**, Mamou, J., Kouame, D., Achim, A., and Basarab, A., Autoregressive Model-Based Reconstruction of Quantitative Acoustic Maps From RF Signals Sampled at Innovation Rate; *TCI* 2020 993-1006  
**Kingston, A.M.**, *see* Delgado-Friedrichs, O., *TCI* 2020 24-33  
**Knopp, T.**, *see* Grosser, M., *TCI* 2020 1389-1402  
**Kohler, T.**, *see* Schirrmacher, F., *TCI* 2020 503-517  
**Kohr, H.**, *see* Lagerwerf, M.J., *TCI* 2020 739-748  
**Koller, M.**, *see* Grosche, S., *TCI* 2020 1440-1450  
**Koppal, S.**, *see* Henderson, K., *TCI* 2020 529-543  
**Kouame, D.**, *see* Kim, J., *TCI* 2020 993-1006  
**Kruizinga, P.**, *see* van der Meulen, P., *TCI* 2020 358-373  
**Kumar, S.**, Mahadevappa, M., and Dutta, P.K., Compressive Holography From Poisson Noise Plagued Holograms Using Expectation-Maximization; *TCI* 2020 857-867

**L**

- Lagerwerf, M.J.**, Palenstijn, W.J., Kohr, H., and Batenburg, K.J., Automated FDK-Filter Selection for Cone-Beam CT in Research Environments; *TCI* 2020 739-748

- Lahivaara, T.**, Yadav, R., Link, G., and Vauhkonen, M., Estimation of Moisture Content Distribution in Porous Foam Using Microwave Tomography With Neural Networks; *TCI* 2020 1351-1361  
**Latham, S.J.**, *see* Delgado-Friedrichs, O., *TCI* 2020 24-33  
**Lau, D.L.**, *see* Zhang, H., *TCI* 2020 749-763  
**Le Pendu, M.**, *see* David, P., *TCI* 2020 791-805  
**Lee, J.**, *see* Ren, H., *TCI* 2020 447-462  
**Lee, J.**, Bertrand, N.P., and Rozell, C.J., Unbalanced Optimal Transport Regularization for Imaging Problems; *TCI* 2020 1219-1232  
**Lee, S.**, *see* Lim, S., *TCI* 2020 1127-1138  
**Legros, Q.**, Meignen, S., McLaughlin, S., and Altmann, Y., Expectation-Maximization Based Approach to 3D Reconstruction From Single-Waveform Multispectral Lidar Data; *TCI* 2020 1033-1043  
**Lei, B.**, *see* Wang, W., *TCI* 2020 1548-1560  
**Lei, J.**, *see* Zhou, W., *TCI* 2020 883-893  
**Leibovich, M.**, Papanicolaou, G., and Tsogka, C., Low Rank Plus Sparse Decomposition of Synthetic Aperture Radar Data for Target Imaging; *TCI* 2020 491-502  
**Leus, G.**, *see* van der Meulen, P., *TCI* 2020 358-373  
**Li, H.**, *see* Zhu, H., *TCI* 2020 12-23  
**Li, H.**, *see* Cheng, W., *TCI* 2020 945-957  
**Li, M.**, *see* Fan, F., *TCI* 2020 1245-1257  
**Li, M.**, *see* Phair, A., *TCI* 2020 558-568  
**Li, P.**, *see* Xu, S., *TCI* 2020 1561-1570  
**Li, S.**, *see* Ma, X., *TCI* 2020 317-327  
**Li, S.**, *see* Zhang, Y., *TCI* 2020 1375-1388  
**Li, X.**, Sun, Z., and Yeo, T.S., Computational Efficient Refocusing and Estimation Method for Radar Moving Target With Unknown Time Information; *TCI* 2020 544-557  
**Li, Y.**, *see* Wei, W., *TCI* 2020 1233-1244  
**Li, Y.**, Zhang, J., Niu, J., Zhou, Y., and Wang, L., Computational Implementation and Asymptotic Statistical Performance Analysis of Range Frequency Autocorrelation Function for Radar High-Speed Target Detection; *TCI* 2020 1297-1308  
**Li, Y.**, Tofighi, M., Geng, J., Monga, V., and Eldar, Y.C., Efficient and Interpretable Deep Blind Image Deblurring Via Algorithm Unrolling; *TCI* 2020 666-681  
**Liang, D.**, *see* Liu, Y., *TCI* 2020 434-446  
**Liang, D.**, *see* Huang, Z., *TCI* 2020 1203-1218  
**Liang, G.**, *see* Ren, S., *TCI* 2020 1336-1350  
**Liang, Z.**, *see* Zhang, Y., *TCI* 2020 1375-1388  
**Liao, X.**, *see* Jin, H., *TCI* 2020 1097-1105  
**Liebling, M.**, *see* Mariani, O., *TCI* 2020 385-395  
**Lim, J.**, *see* Pham, T., *TCI* 2020 727-738  
**Lim, S.**, Park, H., Lee, S., Chang, S., Sim, B., and Ye, J.C., CycleGAN With a Blur Kernel for Deconvolution Microscopy: Optimal Transport Geometry; *TCI* 2020 1127-1138  
**Lin, C.Y.**, and Fessler, J.A., Efficient Regularized Field Map Estimation in 3D MRI; *TCI* 2020 1451-1458  
**Lin, Y.**, *see* Wu, Y., *TCI* 2020 419-433  
**Link, G.**, *see* Lahivaara, T., *TCI* 2020 1351-1361  
**Liu, D.**, *see* Hou, R., *TCI* 2020 640-651  
**Liu, D.**, Huang, Y., Wu, Q., Ma, R., and An, P., Multi-Angular Epipolar Geometry Based Light Field Angular Reconstruction Network; *TCI* 2020 1507-1522  
**Liu, D.**, *see* Peng, J., *TCI* 2020 682-696  
**Liu, D.**, *see* Ye, X., *TCI* 2020 1486-1492  
**Liu, F.**, *see* Wang, Y., *TCI* 2020 830-842  
**Liu, J.**, *see* Sun, Y., *TCI* 2020 908-921  
**Liu, J.**, *see* Hu, D., *TCI* 2020 477-490  
**Liu, Q.**, *see* Liu, Y., *TCI* 2020 434-446  
**Liu, S.**, *see* Jin, H., *TCI* 2020 569-578  
**Liu, S.**, *see* Jin, H., *TCI* 2020 569-578  
**Liu, S.**, *see* Jin, H., *TCI* 2020 1097-1105  
**Liu, S.**, *see* Jin, H., *TCI* 2020 1097-1105  
**Liu, W.**, *see* Chen, H., *TCI* 2020 276-290  
**Liu, X.**, *see* Jiang, J., *TCI* 2020 1082-1096

- Liu, X.**, *see* Henderson, K., *TCI* 2020 529-543  
**Liu, X.**, *see* Huang, Z., *TCI* 2020 1203-1218  
**Liu, Y.**, Liu, Q., Zhang, M., Yang, Q., Wang, S., and Liang, D., IFR-Net: Iterative Feature Refinement Network for Compressed Sensing MRI; *TCI* 2020 434-446  
**Liu, Y.**, *see* Huang, H., *TCI* 2020 1117-1126  
**Long, Z.**, *see* Huang, H., *TCI* 2020 1117-1126  
**LoVetri, J.**, *see* Abdollahi, N., *TCI* 2020 1194-1202  
**Lu, H.**, *see* Zhang, Y., *TCI* 2020 1375-1388  
**Lu, J.**, *see* Wang, W., *TCI* 2020 1548-1560  
**Lua, R.C.**, *see* Chen, H., *TCI* 2020 276-290  
**Luo, L.**, *see* Hu, D., *TCI* 2020 477-490  
**Luo, T.**, *see* Zhou, W., *TCI* 2020 883-893  
**Lustig, M.**, *see* Kellman, M., *TCI* 2020 1403-1414  
**Lyu, Q.**, Shan, H., and Wang, G., MRI Super-Resolution With Ensemble Learning and Complementary Priors; *TCI* 2020 615-624

**M**

- Ma, J.**, *see* Jiang, J., *TCI* 2020 1082-1096  
**Ma, J.**, *see* Zhang, Y., *TCI* 2020 1375-1388  
**Ma, R.**, *see* Liu, D., *TCI* 2020 1507-1522  
**Ma, X.**, Yao, M., Zhang, Z., Peng, J., Li, S., and Zhong, J., Computational Oblique Illumination Microscopy With Isotropic High Resolution; *TCI* 2020 317-327  
**Ma, X.**, *see* Zhang, H., *TCI* 2020 749-763  
**Ma, X.**, *see* Mao, T., *TCI* 2020 73-86  
**Ma, X.**, *see* Wang, Z., *TCI* 2020 981-992  
**Mahadevappa, M.**, *see* Kumar, S., *TCI* 2020 857-867  
**Maier, A.**, *see* Felsner, L., *TCI* 2020 625-639  
**Mamou, J.**, *see* Kim, J., *TCI* 2020 993-1006  
**Mansour, H.**, *see* Kadu, A., *TCI* 2020 1523-1536  
**Mao, T.**, Cuadros, A.P., Ma, X., He, W., Chen, Q., and Arce, G.R., Coded Aperture Optimization in X-Ray Tomography via Sparse Principal Component Analysis; *TCI* 2020 73-86  
**Mao, Z.**, Chmitt, N., and Chan, S.H., Image Reconstruction of Static and Dynamic Scenes Through Anisoplanatic Turbulence; *TCI* 2020 1415-1428  
**Marek, M.**, *see* Kadlec, P., *TCI* 2020 1586-1594  
**Mariani, O.**, Ernst, A., Mercader, N., and Liebling, M., Reconstruction of Image Sequences From Ungated and Scanning-Aberrated Laser Scanning Microscopy Images of the Beating Heart; *TCI* 2020 385-395  
**Markley, E.**, *see* Kellman, M., *TCI* 2020 1403-1414  
**Marquez, M.**, *see* Tachella, J., *TCI* 2020 208-220  
**Mathew, R.S.**, and Paul, J.S., Automated Regularization Parameter Selection Using Continuation Based Proximal Method for Compressed Sensing MRI; *TCI* 2020 1309-1319  
**McCarthy, A.**, *see* Halimi, A., *TCI* 2020 138-152  
**McLaughlin, S.**, *see* Halimi, A., *TCI* 2020 138-152  
**McLaughlin, S.**, *see* Tachella, J., *TCI* 2020 208-220  
**McLaughlin, S.**, *see* Legros, Q., *TCI* 2020 1033-1043  
**Mdrafí, R.**, and Gurbuz, A.C., Joint Learning of Measurement Matrix and Signal Reconstruction via Deep Learning; *TCI* 2020 818-829  
**Meignen, S.**, *see* Legros, Q., *TCI* 2020 1033-1043  
**Meng, D.**, *see* Zhang, Y., *TCI* 2020 1375-1388  
**Meng, X.**, *see* Shao, F., *TCI* 2020 1622-1635  
**Mercader, N.**, *see* Mariani, O., *TCI* 2020 385-395  
**Metzler, C.A.**, *see* Sharma, M.K., *TCI* 2020 95-108  
**Minvielle, P.**, *see* Benoudiba-Campanini, T., *TCI* 2020 1059-1069  
**Mitra, K.**, *see* Vadathya, A.K., *TCI* 2020 304-316  
**Mittal, S.**, *see* Chen, H., *TCI* 2020 276-290  
**Moddel, M.**, *see* Grosser, M., *TCI* 2020 1389-1402  
**Mohammed, B.**, *see* Brankovic, A., *TCI* 2020 1595-1606  
**Monga, V.**, *see* Li, Y., *TCI* 2020 666-681  
**Moore, B.E.**, Ravishankar, S., Nadakuditi, R.R., and Fessler, J.A., Online Adaptive Image Reconstruction (OnAIR) Using Dictionary Models; *TCI* 2020 153-166  
**Morvidone, M.A.**, *see* Tarpau, C., *TCI* 2020 958-967

- Moscoso, M.**, Novikov, A., Papanicolaou, G., and Tsogka, C., Synthetic Aperture Imaging With Intensity-Only Data; *TCI* 2020 87-94  
**Mota, J.F.C.**, *see* Song, P., *TCI* 2020 57-72  
**Murala, S.**, *see* Hambarde, P., *TCI* 2020 806-817  
**Myers, G.R.**, *see* Delgado-Friedrichs, O., *TCI* 2020 24-33

**N**

- Nadakuditi, R.R.**, *see* Moore, B.E., *TCI* 2020 153-166  
**Nagahara, H.**, *see* Yoshida, M., *TCI* 2020 463-476  
**Nagesh, S.**, *see* Sharma, M.K., *TCI* 2020 95-108  
**Nagy, J.**, *see* Herring, J.L., *TCI* 2020 235-247  
**Nayer, S.**, *see* Jagatap, G., *TCI* 2020 344-357  
**Nguyen, M.K.**, *see* Tarpau, C., *TCI* 2020 958-967  
**Nie, J.**, *see* Wei, W., *TCI* 2020 1233-1244  
**Nie, J.**, *see* Wei, W., *TCI* 2020 1459-1470  
**Nie, R.**, *see* Hou, R., *TCI* 2020 640-651  
**Niu, J.**, *see* Li, Y., *TCI* 2020 1297-1308  
**Novikov, A.**, *see* Moscoso, M., *TCI* 2020 87-94

**O**

- Oberlin, T.**, *see* Guilloteau, C., *TCI* 2020 1362-1374  
**Oh, G.**, Sim, B., Chung, H., Sunwoo, L., and Ye, J.C., Unpaired Deep Learning for Accelerated MRI Using Optimal Transport Driven CycleGAN; *TCI* 2020 1285-1296  
**Ongie, G.**, *see* Gilton, D., *TCI* 2020 328-343  
**Orieux, F.**, *see* Hadj-Youcef, M.A., *TCI* 2020 922-933

**P**

- Paganin, D.M.**, *see* Svalbe, I.D., *TCI* 2020 1258-1271  
**Palenstijn, W.J.**, *see* Lagerwerf, M.J., *TCI* 2020 739-748  
**Pang, S.**, *see* Zhu, Z., *TCI* 2020 125-137  
**Papanicolaou, G.**, *see* Moscoso, M., *TCI* 2020 87-94  
**Papanicolaou, G.**, *see* Leibovich, M., *TCI* 2020 491-502  
**Park, H.**, *see* Lim, S., *TCI* 2020 1127-1138  
**Park, I.K.**, *see* Sumantri, J.S., *TCI* 2020 1179-1193  
**Patel, A.B.**, *see* Chen, H., *TCI* 2020 276-290  
**Paul, J.S.**, *see* Mathew, R.S., *TCI* 2020 1309-1319  
**Pellizzari, C.J.**, Spencer, M.F., and Bouman, C.A., Coherent Plug-and-Play: Digital Holographic Imaging Through Atmospheric Turbulence Using Model-Based Iterative Reconstruction and Convolutional Neural Networks; *TCI* 2020 1607-1621  
**Pelt, D.M.**, *see* Hendriksen, A.A., *TCI* 2020 1320-1335  
**Peng, J.**, Xiong, Z., Wang, Y., Zhang, Y., and Liu, D., Zero-Shot Depth Estimation From Light Field Using A Convolutional Neural Network; *TCI* 2020 682-696  
**Peng, J.**, *see* Ma, X., *TCI* 2020 317-327  
**Peng, J.**, *see* Zhang, Y., *TCI* 2020 1375-1388  
**Petersen, T.C.**, *see* Svalbe, I.D., *TCI* 2020 1258-1271  
**Phair, A.**, Brideson, M., Jin, J., Li, M., Crozier, S., and Forbes, L.K., WARF: A Weighted-Sum Approach to Radial MRI Image Reconstruction With a Rotating RF Coil; *TCI* 2020 558-568  
**Pham, T.**, Soubies, E., Ayoub, A., Lim, J., Psaltis, D., and Unser, M., Three-Dimensional Optical Diffraction Tomography With Lippmann-Schwinger Model; *TCI* 2020 727-738  
**Pinilla, S.**, *see* Jerez, A., *TCI* 2020 934-944  
**Potter, L.C.**, *see* Tucker, D., *TCI* 2020 1429-1439  
**Psaltis, D.**, *see* Pham, T., *TCI* 2020 727-738  
**Pu, W.**, and Wu, J., OSRanP: A Novel Way for Radar Imaging Utilizing Joint Sparsity and Low-Rankness; *TCI* 2020 868-882  
**Puente Leon, F.P.**, *see* Schambach, M., *TCI* 2020 591-603  
**Pursiainen, S.**, *see* Sorsa, L., *TCI* 2020 579-590

**Q**

- Qiu, W.**, Zhou, J., and Fu, Q., Tensor Representation for Three-Dimensional Radar Target Imaging With Sparsely Sampled Data; *TCI* 2020 263-275  
**Quan, G.**, *see* Huang, Z., *TCI* 2020 1203-1218  
**Quan, Y.**, Yang, J., Chen, Y., Xu, Y., and Ji, H., Collaborative Deep Learning for Super-Resolving Blurry Text Images; *TCI* 2020 778-790  
**Quan, Y.**, *see* Huang, Y., *TCI* 2020 34-45  
**Quicke, P.**, *see* Song, P., *TCI* 2020 1017-1032

**R**

- Rahardja, S.**, *see* Yan, L., *TCI* 2020 1070-1081  
**Ravishankar, S.**, *see* Moore, B.E., *TCI* 2020 153-166  
**Ren, H.**, El-Khamy, M., and Lee, J., CNF+CT: Context Network Fusion of Cascade-Trained Convolutional Neural Networks for Image Super-Resolution; *TCI* 2020 447-462  
**Ren, S.**, Liang, G., and Dong, F., A Point Constrained Boundary Reconstruction Framework for Ultrasound Guided Electrical Impedance Tomography; *TCI* 2020 1336-1350  
**Ren, Z.**, *see* Wang, W., *TCI* 2020 1548-1560  
**Riess, C.**, *see* Schirrmacher, F., *TCI* 2020 503-517  
**Riess, C.**, *see* Felsner, L., *TCI* 2020 625-639  
**Rivaz, H.**, *see* Goudarzi, S., *TCI* 2020 1272-1284  
**Robles-Kelly, A.**, *see* Zhu, H., *TCI* 2020 12-23  
**Rodrigues, M.R.D.**, *see* Song, P., *TCI* 2020 57-72  
**Rollet, G.**, *see* Tarpau, C., *TCI* 2020 958-967  
**Rozell, C.J.**, *see* Lee, J., *TCI* 2020 1219-1232  
**Ruthotto, L.**, *see* Herring, J.L., *TCI* 2020 235-247

**S**

- Sabuncu, M.R.**, *see* Bahadir, C.D., *TCI* 2020 1139-1152  
**Salazar, E.**, and Arce, G.R., Coded Aperture Optimization in Spatial Spectral Compressive Spectral Imagers; *TCI* 2020 764-777  
**Salman Asif, M.**, *see* Zheng, Y., *TCI* 2020 1167-1178  
**Sanghvi, Y.**, Kalepu, Y., and Khankhoje, U.K., Embedding Deep Learning in Inverse Scattering Problems; *TCI* 2020 46-56  
**Schambach, M.**, and Puent Leon, F.P., Microlens Array Grid Estimation, Light Field Decoding, and Calibration; *TCI* 2020 591-603  
**Schirrmacher, F.**, Riess, C., and Kohler, T., Adaptive Quantile Sparse Image (AQuaSI) Prior for Inverse Imaging Problems; *TCI* 2020 503-517  
**Seiler, J.**, *see* Grosche, S., *TCI* 2020 1440-1450  
**Shamshad, F.**, *see* Asim, M., *TCI* 2020 1493-1506  
**Shan, H.**, *see* Lyu, Q., *TCI* 2020 615-624  
**Shao, F.**, Fei, Y., Jiang, Q., Meng, X., and Ho, Y., Building Stereoscopic Zoomer via Global and Local Warping Optimization; *TCI* 2020 1622-1635  
**Sharma, M.K.**, Metzler, C.A., Nagesh, S., Baraniuk, R.G., Cossairt, O., and Veeraraghavan, A., Inverse Scattering via Transmission Matrices: Broadband Illumination and Fast Phase Retrieval Algorithms; *TCI* 2020 95-108  
**Sheppard, A.P.**, *see* Delgado-Friedrichs, O., *TCI* 2020 24-33  
**Sidiropoulos, N.D.**, *see* Yaman, B., *TCI* 2020 194-207  
**Sim, B.**, *see* Oh, G., *TCI* 2020 1285-1296  
**Sim, B.**, *see* Lim, S., *TCI* 2020 1127-1138  
**Son, I.**, *see* Yonet, B., *TCI* 2020 711-726  
**Song, P.**, Deng, X., Mota, J.F.C., Deligiannis, N., Dragotti, P.L., and Rodrigues, M.R.D., Multimodal Image Super-Resolution via Joint Sparse Representations Induced by Coupled Dictionaries; *TCI* 2020 57-72  
**Song, P.**, Jadan, H.V., Howe, C.L., Quicke, P., Foust, A.J., and Dragotti, P.L., 3D Localization for Light-Field Microscopy via Convolutional Sparse Coding on Epipolar Images; *TCI* 2020 1017-1032  
**Song, T.**, Chowdhury, S.R., Yang, F., and Dutta, J., Super-Resolution PET Imaging Using Convolutional Neural Networks; *TCI* 2020 518-528  
**Sonoda, T.**, *see* Yoshida, M., *TCI* 2020 463-476  
**Sorsa, L.**, Takala, M., Eyrraud, C., and Pursiainen, S., A Time-Domain Multi-grid Solver With Higher-Order Born Approximation for Full-Wave Radar Tomography of a Complex-Shaped Target; *TCI* 2020 579-590

**Soubies, E.**, *see* Pham, T., *TCI* 2020 727-738

**Spaink, H.A.J.**, *see* Tang, X., *TCI* 2020 1537-1547

**Spencer, M.F.**, *see* Pellizzari, C.J., *TCI* 2020 1607-1621

**Sugimura, D.**, *see* Honda, T., *TCI* 2020 248-262

**Sugiyama, Y.**, *see* Yoshida, M., *TCI* 2020 463-476

**Sumantri, J.S.**, and Park, I.K., 360 Panorama Synthesis from a Sparse Set of Images on a Low-Power Device; *TCI* 2020 1179-1193

**Sun, H.**, *see* Jiang, J., *TCI* 2020 1082-1096

**Sun, J.**, *see* Zhang, J., *TCI* 2020 697-710

**Sun, K.**, *see* Xu, S., *TCI* 2020 1561-1570

**Sun, X.**, *see* Zhu, H., *TCI* 2020 12-23

**Sun, Y.**, Liu, J., and Kamilov, U.S., Block Coordinate Regularization by Denoising; *TCI* 2020 908-921

**Sun, Y.**, *see* Wei, W., *TCI* 2020 1459-1470

**Sun, Z.**, *see* Li, X., *TCI* 2020 544-557

**Sun, Z.**, *see* Wang, Y., *TCI* 2020 830-842

**Sunwoo, L.**, *see* Oh, G., *TCI* 2020 1285-1296

**Svalbe, I.D.**, Paganin, D.M., and Petersen, T.C., Sharp Computational Images From Diffuse Beams: Factorization of the Discrete Delta Function; *TCI* 2020 1258-1271

**T**

**Tachella, J.**, Altmann, Y., Marquez, M., Arguello-Fuentes, H., Tourneret, J., and McLaughlin, S., Bayesian 3D Reconstruction of Subsampled Multispectral Single-Photon Lidar Signals; *TCI* 2020 208-220

**Takala, M.**, *see* Sorsa, L., *TCI* 2020 579-590

**Tamir, J.**, *see* Kellman, M., *TCI* 2020 1403-1414

**Tan, T.**, *see* Wang, Y., *TCI* 2020 830-842

**Tang, J.**, Egiazarian, K., Golbabaei, M., and Davies, M., The Practicality of Stochastic Optimization in Imaging Inverse Problems; *TCI* 2020 1471-1485

**Tang, X.**, Spaink, H.A.J., Wijk, R.C.v., and Verbeek, F.J., Segmentation-Driven Optimization For Iterative Reconstruction in Optical Projection Tomography: An Exploration; *TCI* 2020 1537-1547

**Taniguchi, R.**, *see* Yoshida, M., *TCI* 2020 463-476

**Tarpau, C.**, Cebeiro, J., Nguyen, M.K., Rollet, G., and Morvidone, M.A., Analytic Inversion of a Radon Transform on Double Circular Arcs With Applications in Compton Scattering Tomography; *TCI* 2020 958-967

**Teng, Y.**, *see* Fan, F., *TCI* 2020 1245-1257

**Tilmon, B.**, *see* Henderson, K., *TCI* 2020 529-543

**Tivive, F.H.C.**, and Bouzerdoum, A., Through the Wall Scene Reconstruction Using Low Rank and Total Variation; *TCI* 2020 221-234

**Tobin, R.**, *see* Halimi, A., *TCI* 2020 138-152

**Tofighi, M.**, *see* Li, Y., *TCI* 2020 666-681

**Tourneret, J.**, *see* Tachella, J., *TCI* 2020 208-220

**Trakic, A.**, *see* Brankovic, A., *TCI* 2020 1595-1606

**Tsogka, C.**, *see* Moscoso, M., *TCI* 2020 87-94

**Tsogka, C.**, *see* Leibovich, M., *TCI* 2020 491-502

**Tucker, D.**, and Potter, L.C., Speckle Suppression in Multi-Channel Coherent Imaging: A Tractable Bayesian Approach; *TCI* 2020 1429-1439

**U**

**Unser, M.**, *see* Pham, T., *TCI* 2020 727-738

**V**

**Vadathya, A.K.**, Girish, S., and Mitra, K., A Unified Learning-Based Framework for Light Field Reconstruction From Coded Projections; *TCI* 2020 304-316

**van der Meulen, P.**, Kruizinga, P., Bosch, J.G., and Leus, G., Coding Mask Design for Single Sensor Ultrasound Imaging; *TCI* 2020 358-373

**van Leeuwen, T.**, *see* Kadu, A., *TCI* 2020 1-11

**Vaswani, N.**, *see* Jagatap, G., *TCI* 2020 344-357

**Vauhkonen, M.**, *see* Lahivaara, T., *TCI* 2020 1351-1361

**Veeraraghavan, A.**, *see* Sharma, M.K., *TCI* 2020 95-108

**Veeraraghavan, A.**, *see* Chen, H., *TCI* 2020 276-290

**Verbeek, F.J.**, *see* Tang, X., *TCI* 2020 1537-1547

## W

**Waller, L.**, *see* Kellman, M., *TCI* 2020 1403-1414

**Walsham, J.**, *see* Brankovic, A., *TCI* 2020 1595-1606

**Wang, A.Q.**, *see* Bahadir, C.D., *TCI* 2020 1139-1152

**Wang, G.**, *see* Fan, F., *TCI* 2020 1245-1257

**Wang, G.**, *see* Lyu, Q., *TCI* 2020 615-624

**Wang, L.**, *see* Li, Y., *TCI* 2020 1297-1308

**Wang, Q.**, *see* Zhu, H., *TCI* 2020 12-23

**Wang, S.**, *see* Liu, Y., *TCI* 2020 434-446

**Wang, T.**, *see* Wang, W., *TCI* 2020 1548-1560

**Wang, W.**, Xia, X., He, C., Ren, Z., Lu, J., Wang, T., and Lei, B., An End-to-End Deep Network for Reconstructing CT Images Directly From Sparse Sinograms; *TCI* 2020 1548-1560

**Wang, W.**, *see* Xu, J., *TCI* 2020 604-614

**Wang, X.**, *see* Yan, L., *TCI* 2020 1070-1081

**Wang, Y.**, *see* Peng, J., *TCI* 2020 682-696

**Wang, Y.**, Liu, F., Zhang, K., Wang, Z., Sun, Z., and Tan, T., High-fidelity View Synthesis for Light Field Imaging With Extended Pseudo 4DCNN; *TCI* 2020 830-842

**Wang, Y.**, *see* Zhang, Y., *TCI* 2020 1375-1388

**Wang, Y.**, *see* Cheng, W., *TCI* 2020 945-957

**Wang, Z.**, *see* Xu, S., *TCI* 2020 1561-1570

**Wang, Z.**, *see* Wang, Y., *TCI* 2020 830-842

**Wang, Z.**, Ma, X., Chen, R., Zhang, S., and Arce, G.R., Fast Pixelated Lithographic Source and Mask Joint Optimization Based on Compressive Sensing; *TCI* 2020 981-992

**Wei, S.**, *see* Zhou, Y., *TCI* 2020 894-907

**Wei, W.**, Nie, J., Li, Y., Zhang, L., and Zhang, Y., Deep Recursive Network for Hyperspectral Image Super-Resolution; *TCI* 2020 1233-1244

**Wei, W.**, Sun, Y., Zhang, L., Nie, J., and Zhang, Y., Boosting One-Shot Spectral Super-Resolution Using Transfer Learning; *TCI* 2020 1459-1470

**Weingartner, S.**, *see* Yaman, B., *TCI* 2020 194-207

**Wijk, R.C.v.**, *see* Tang, X., *TCI* 2020 1537-1547

**Willett, R.**, *see* Gilton, D., *TCI* 2020 328-343

**Wu, J.**, *see* Pu, W., *TCI* 2020 868-882

**Wu, Q.**, *see* Liu, D., *TCI* 2020 1507-1522

**Wu, W.**, *see* Hu, D., *TCI* 2020 477-490

**Wu, Y.**, and Lin, Y., InversionNet: An Efficient and Accurate Data-Driven Full Waveform Inversion; *TCI* 2020 419-433

## X

**Xia, X.**, *see* Wang, W., *TCI* 2020 1548-1560

**Xie, Q.**, *see* Zhang, Y., *TCI* 2020 1375-1388

**Xiong, L.**, *see* Hou, R., *TCI* 2020 640-651

**Xiong, Z.**, *see* Peng, J., *TCI* 2020 682-696

**Xu, J.**, Jiang, M., Yu, L., Yang, W., and Wang, W., Robust Motion Compensation for Event Cameras With Smooth Constraint; *TCI* 2020 604-614

**Xu, K.**, *see* Zhang, L., *TCI* 2020 1106-1116

**Xu, K.**, *see* Ye, X., *TCI* 2020 1486-1492

**Xu, M.**, *see* Hu, D., *TCI* 2020 477-490

**Xu, R.**, *see* Huang, Y., *TCI* 2020 34-45

**Xu, S.**, Ji, L., Wang, Z., Li, P., Sun, K., Zhang, C., and Zhang, J., Towards Reducing Severe Defocus Spread Effects for Multi-Focus Image Fusion via an Optimization Based Strategy; *TCI* 2020 1561-1570

**Xu, Y.**, *see* Quan, Y., *TCI* 2020 778-790

**Xu, Y.**, *see* Huang, Y., *TCI* 2020 34-45

## Y

**Yadav, R.**, *see* Lahivaara, T., *TCI* 2020 1351-1361

**Yaman, B.**, Weingartner, S., Kargas, N., Sidiropoulos, N.D., and Akcakaya, M., Low-Rank Tensor Models for Improved Multidimensional MRI: Application to Dynamic Cardiac  $T_1$  Mapping; *TCI* 2020 194-207

**Yan, L.**, Wang, X., Zhao, M., Kaloorazi, M., Chen, J., and Rahardja, S., Reconstruction of Hyperspectral Data From RGB Images With Prior Category Information; *TCI* 2020 1070-1081

**Yang, F.**, *see* Song, T., *TCI* 2020 518-528

**Yang, J.**, *see* Quan, Y., *TCI* 2020 778-790

**Yang, Q.**, *see* Liu, Y., *TCI* 2020 434-446

**Yang, W.**, *see* Xu, J., *TCI* 2020 604-614

**Yang, Y.**, *see* Chen, Y., *TCI* 2020 1044-1058

**Yang, Y.**, *see* Huang, Z., *TCI* 2020 1203-1218

**Yao, M.**, *see* Ma, X., *TCI* 2020 317-327

**Yazici, B.**, *see* Yonel, B., *TCI* 2020 711-726

**Ye, J.C.**, *see* Oh, G., *TCI* 2020 1285-1296

**Ye, J.C.**, *see* Lim, S., *TCI* 2020 1127-1138

**Ye, X.**, Zhang, N., Xu, K., Agarwal, K., Bai, M., Liu, D., and Chen, X., Application of Subspace-Based Distorted-Born Iteration Method in Imaging Biaxial Anisotropic Scatterer; *TCI* 2020 1486-1492

**Yeo, T.S.**, *see* Li, X., *TCI* 2020 544-557

**Yonel, B.**, Son, I., and Yazici, B., Exact Multistatic Interferometric Imaging via Generalized Wirtinger Flow; *TCI* 2020 711-726

**Yoshida, M.**, Sonoda, T., Nagahara, H., Endo, K., Sugiyama, Y., and Taniguchi, R., High-Speed Imaging Using CMOS Image Sensor With Quasi Pixel-Wise Exposure; *TCI* 2020 463-476

**You, S.**, *see* Zhu, H., *TCI* 2020 12-23

**Yu, C.**, *see* Hou, R., *TCI* 2020 640-651

**Yu, L.**, *see* Zhou, W., *TCI* 2020 883-893

**Yu, L.**, *see* Xu, J., *TCI* 2020 604-614

**Yu, M.**, *see* Chen, Y., *TCI* 2020 1044-1058

**Yu, Y.**, Da, F., Guo, Y., and Zhang, Z., High-Speed Phase-Shifting 3D Profilometry on Human Face Assisted by Statistical Model; *TCI* 2020 1007-1016

## Z

**Zamani, A.**, *see* Brankovic, A., *TCI* 2020 1595-1606

**Zeng, D.**, *see* Zhang, Y., *TCI* 2020 1375-1388

**Zhang, C.**, *see* Xu, S., *TCI* 2020 1561-1570

**Zhang, C.**, *see* Huang, Z., *TCI* 2020 1203-1218

**Zhang, H.**, Ma, X., Lau, D.L., Zhu, J., and Arce, G.R., Compressive Spectral Imaging Based on Hexagonal Blue Noise Coded Apertures; *TCI* 2020 749-763

**Zhang, H.**, *see* Zhang, Y., *TCI* 2020 1375-1388

**Zhang, J.**, *see* Xu, S., *TCI* 2020 1561-1570

**Zhang, J.**, *see* Li, Y., *TCI* 2020 1297-1308

**Zhang, J.**, Sun, J., Chen, Q., and Zuo, C., Resolution Analysis in a Lens-Free On-Chip Digital Holographic Microscope; *TCI* 2020 697-710

**Zhang, K.**, *see* Kellman, M., *TCI* 2020 1403-1414

**Zhang, K.**, *see* Wang, Y., *TCI* 2020 830-842

**Zhang, L.**, *see* Wei, W., *TCI* 2020 1233-1244

**Zhang, L.**, Xu, K., Zhong, Y., and Agarwal, K., Solving Phaseless Highly Nonlinear Inverse Scattering Problems With Contraction Integral Equation for Inversion; *TCI* 2020 1106-1116

**Zhang, L.**, *see* Zhou, Y., *TCI* 2020 894-907

**Zhang, L.**, *see* Wei, W., *TCI* 2020 1459-1470

**Zhang, M.**, *see* Liu, Y., *TCI* 2020 434-446

**Zhang, N.**, *see* Ye, X., *TCI* 2020 1486-1492

**Zhang, Q.**, *see* Zhu, H., *TCI* 2020 12-23

**Zhang, Q.**, *see* Huang, Z., *TCI* 2020 1203-1218

**Zhang, R.**, *see* Jin, H., *TCI* 2020 569-578

**Zhang, R.**, *see* Jin, H., *TCI* 2020 1097-1105

**Zhang, S.**, *see* Wang, Z., *TCI* 2020 981-992

**Zhang, Y.**, *see* Wei, W., *TCI* 2020 1233-1244

**Zhang, Y.**, *see* Peng, J., *TCI* 2020 682-696

**Zhang, Y.**, *see* Hu, D., *TCI* 2020 477-490

**Zhang, Y.**, Peng, J., Zeng, D., Xie, Q., Li, S., Bian, Z., Wang, Y., Zhao, Q., Zhang, H., Liang, Z., Lu, H., Meng, D., and Ma, J., Contrast-Medium Anisotropy-Aware Tensor Total Variation Model for Robust Cerebral Perfusion CT Reconstruction With Low-Dose Scans; *TCI* 2020 1375-1388

**Zhang, Y.**, *see* Zhang, Y., *TCI* 2020 1375-1388

- Zhang, Y., see Wei, W., TCI 2020 1459-1470**
- Zhang, Z., see Ma, X., TCI 2020 317-327**
- Zhang, Z., see Yu, Y., TCI 2020 1007-1016**
- Zhao, M., see Yan, L., TCI 2020 1070-1081**
- Zhao, Q., see Zhang, Y., TCI 2020 1375-1388**
- Zheng, H., see Huang, Z., TCI 2020 1203-1218**
- Zheng, Y., see Jin, H., TCI 2020 569-578**
- Zheng, Y., see Jin, H., TCI 2020 1097-1105**
- Zheng, Y., and Salman Asif, M., Joint Image and Depth Estimation With Mask-Based Lensless Cameras; TCI 2020 1167-1178**
- Zheng, Z., see Jin, H., TCI 2020 1097-1105**
- Zhong, J., see Ma, X., TCI 2020 317-327**
- Zhong, Y., see Zhang, L., TCI 2020 1106-1116**
- Zhou, D., see Hou, R., TCI 2020 640-651**
- Zhou, J., see Qiu, W., TCI 2020 263-275**
- Zhou, W., Lei, J., Jiang, Q., Yu, L., and Luo, T., Blind Binocular Visual Quality Predictor Using Deep Fusion Network; TCI 2020 883-893**
- Zhou, Y., see Li, Y., TCI 2020 1297-1308**
- Zhou, Y., Zhang, L., Wei, S., and Cao, Y., Dynamic Analysis of Spin Satellites Through the Quadratic Phase Estimation in Multiple-Station Radar Images; TCI 2020 894-907**
- Zhu, C., see Huang, H., TCI 2020 1117-1126**
- Zhu, H., Sun, X., Zhang, Q., Wang, Q., Robles-Kelly, A., Li, H., and You, S., Full View Optical Flow Estimation Leveraged From Light Field Superpixel; TCI 2020 12-23**
- Zhu, J., see Zhang, H., TCI 2020 749-763**
- Zhu, Z., Huang, H., and Pang, S., Photon Allocation Strategy in Region-of-Interest Tomographic Imaging; TCI 2020 125-137**
- Zuo, C., see Zhang, J., TCI 2020 697-710**

## Subject Index

### A

#### Aberrations

- Reconstruction of Image Sequences From Ungated and Scanning-Aberrated Laser Scanning Microscopy Images of the Beating Heart. *Mariani, O., +, TCI 2020 385-395*
- Three-Dimensional Optical Diffraction Tomography With Lipmann-Schwinger Model. *Pham, T., +, TCI 2020 727-738*

#### Acceleration

- The Practicality of Stochastic Optimization in Imaging Inverse Problems. *Tang, J., +, TCI 2020 1471-1485*
- Unpaired Deep Learning for Accelerated MRI Using Optimal Transport Driven CycleGAN. *Oh, G., +, TCI 2020 1285-1296*

#### Acoustic microscopy

- Frequency Domain Based Virtual Detector for Heterogeneous Media in Photoacoustic Imaging. *Jin, H., +, TCI 2020 569-578*

#### Acoustics

- Autoregressive Model-Based Reconstruction of Quantitative Acoustic Maps From RF Signals Sampled at Innovation Rate. *Kim, J., +, TCI 2020 993-1006*

- Pre-migration: A General Extension for Photoacoustic Imaging Reconstruction. *Jin, H., +, TCI 2020 1097-1105*

#### Adaptation models

- Contrast-Medium Anisotropy-Aware Tensor Total Variation Model for Robust Cerebral Perfusion CT Reconstruction With Low-Dose Scans. *Zhang, Y., +, TCI 2020 1375-1388*

#### Adaptive optics

- Fast Target Detection via Template Matching in Compressive Phase Retrieval. *Jerez, A., +, TCI 2020 934-944*

#### Amplitude modulation

- Learning Spatial-Spectral Prior for Super-Resolution of Hyperspectral Imagery. *Jiang, J., +, TCI 2020 1082-1096*

+ Check author entry for coauthors

#### Antenna measurements

- Estimation of Moisture Content Distribution in Porous Foam Using Microwave Tomography With Neural Networks. *Lahivaara, T., +, TCI 2020 1351-1361*

#### Antennas

- Unsupervised Algorithm for Brain Anomalies Localization in Electromagnetic Imaging. *Brankovic, A., +, TCI 2020 1595-1606*

#### Apertures

- Coded Aperture Optimization in Spatial Spectral Compressive Spectral Imagers. *Salazar, E., +, TCI 2020 764-777*

- Compressive Spectral Imaging Based on Hexagonal Blue Noise Coded Apertures. *Zhang, H., +, TCI 2020 749-763*

- Fast Multi-Focus Ultrasound Image Recovery Using Generative Adversarial Networks. *Goudarzi, S., +, TCI 2020 1272-1284*

- Fast Target Detection via Template Matching in Compressive Phase Retrieval. *Jerez, A., +, TCI 2020 934-944*

#### Approximation algorithms

- Automated FDK-Filter Selection for Cone-Beam CT in Research Environments. *Lagerwerf, M.J., +, TCI 2020 739-748*

#### Array signal processing

- Through the Wall Scene Reconstruction Using Low Rank and Total Variation. *Tivive, F.H.C., +, TCI 2020 221-234*

#### Artificial neural networks

- Collaborative Deep Learning for Super-Resolving Blurry Text Images. *Quan, Y., +, TCI 2020 778-790*

#### Atmospheric measurements

- Coherent Plug-and-Play: Digital Holographic Imaging Through Atmospheric Turbulence Using Model-Based Iterative Reconstruction and Convolutional Neural Networks. *Pellizzari, C.J., +, TCI 2020 1607-1621*

- Using Low-Rank Tensors for the Recovery of MPI System Matrices. *Grosser, M., +, TCI 2020 1389-1402*

#### Atmospheric modeling

- Coherent Plug-and-Play: Digital Holographic Imaging Through Atmospheric Turbulence Using Model-Based Iterative Reconstruction and Convolutional Neural Networks. *Pellizzari, C.J., +, TCI 2020 1607-1621*

#### AWGN

- Block Coordinate Regularization by Denoising. *Sun, Y., +, TCI 2020 908-921*

### B

#### Backpropagation

- Memory-Efficient Learning for Large-Scale Computational Imaging. *Kellman, M., +, TCI 2020 1403-1414*

#### Backscatter

- SPRITE: 3-D SParse Radar Imaging TEchnique. *Benoudiba-Campanini, T., +, TCI 2020 1059-1069*

#### Bayes methods

- Bayesian 3D Reconstruction of Subsampled Multispectral Single-Photon Lidar Signals. *Tachella, J., +, TCI 2020 208-220*

- Expectation-Maximization Based Approach to 3D Reconstruction From Single-Waveform Multispectral Lidar Data. *Legros, Q., +, TCI 2020 1033-1043*

#### Benchmark testing

- Segmentation-Driven Optimization For Iterative Reconstruction in Optical Projection Tomography: An Exploration. *Tang, X., +, TCI 2020 1537-1547*

#### Biological tissues

- Application of Subspace-Based Distorted-Born Iteration Method in Imaging Biaxial Anisotropic Scatterer. *Ye, X., +, TCI 2020 1486-1492*

- Low-Rank Tensor Models for Improved Multidimensional MRI: Application to Dynamic Cardiac  $T_1$  Mapping. *Yaman, B., +, TCI 2020 194-207*

- SISTER: Spectral-Image Similarity-Based Tensor With Enhanced-Sparsity Reconstruction for Sparse-View Multi-Energy CT. *Hu, D., +, TCI 2020 477-490*

- Truncation Correction for X-ray Phase-Contrast Region-of-Interest Tomography. *Felsner, L., +, TCI 2020 625-639*

**Biomedical imaging**

CaGAN: A Cycle-Consistent Generative Adversarial Network With Attention for Low-Dose CT Imaging. *Huang, Z., +, TCI 2020 1203-1218*

**Biomedical MRI**

IFR-Net: Iterative Feature Refinement Network for Compressed Sensing MRI. *Liu, Y., +, TCI 2020 434-446*

Low-Rank Tensor Models for Improved Multidimensional MRI: Application to Dynamic Cardiac  $T_1$  Mapping. *Yaman, B., +, TCI 2020 194-207*

MRI Super-Resolution With Ensemble Learning and Complementary Priors. *Lyu, Q., +, TCI 2020 615-624*

Online Adaptive Image Reconstruction (OnAIR) Using Dictionary Models. *Moore, B.E., +, TCI 2020 153-166*

Super-Resolution PET Imaging Using Convolutional Neural Networks. *Song, T., +, TCI 2020 518-528*

WARF: A Weighted-Sum Approach to Radial MRI Image Reconstruction With a Rotating RF Coil. *Phair, A., +, TCI 2020 558-568*

**Biomedical optical imaging**

Computational Oblique Illumination Microscopy With Isotropic High Resolution. *Ma, X., +, TCI 2020 317-327*

Fast Target Detection via Template Matching in Compressive Phase Retrieval. *Jerez, A., +, TCI 2020 934-944*

Frequency Domain Based Virtual Detector for Heterogeneous Media in Photoacoustic Imaging. *Jin, H., +, TCI 2020 569-578*

Reconstruction of Image Sequences From Ungated and Scanning-Aberrated Laser Scanning Microscopy Images of the Beating Heart. *Mariani, O., +, TCI 2020 385-395*

**Biomedical ultrasonics**

Coding Mask Design for Single Sensor Ultrasound Imaging. *van der Meulen, P., +, TCI 2020 358-373*

Frequency Domain Based Virtual Detector for Heterogeneous Media in Photoacoustic Imaging. *Jin, H., +, TCI 2020 569-578*

**Blind source separation**

Adaptive Near-Infrared and Visible Fusion for Fast Image Enhancement. *Awad, M., +, TCI 2020 408-418*

**Blood vessels**

Reconstruction of Image Sequences From Ungated and Scanning-Aberrated Laser Scanning Microscopy Images of the Beating Heart. *Mariani, O., +, TCI 2020 385-395*

**Boundary conditions**

Sharp Computational Images From Diffuse Beams: Factorization of the Discrete Delta Function. *Svalbe, I.D., +, TCI 2020 1258-1271*

**Brain**

Super-Resolution PET Imaging Using Convolutional Neural Networks. *Song, T., +, TCI 2020 518-528*

**Brain modeling**

Unsupervised Algorithm for Brain Anomalies Localization in Electromagnetic Imaging. *Brankovic, A., +, TCI 2020 1595-1606*

**Breast**

Improved Tumor Detection via Quantitative Microwave Breast Imaging Using Eigenfunction-Based Prior. *Abdollahi, N., +, TCI 2020 1194-1202*

**Brightness**

Color Filter Arrays for Quanta Image Sensors. *Elgendi, O.A., +, TCI 2020 652-665*

Robust Motion Compensation for Event Cameras With Smooth Constraint. *Xu, J., +, TCI 2020 604-614*

**C****Calibration**

Design and Calibration of a Fast Flying-Dot Projector for Dynamic Light Transport Acquisition. *Henderson, K., +, TCI 2020 529-543*

Learning Stereo High Dynamic Range Imaging From A Pair of Cameras With Different Exposure Parameters. *Chen, Y., +, TCI 2020 1044-1058*

Microlens Array Grid Estimation, Light Field Decoding, and Calibration. *Schambach, M., +, TCI 2020 591-603*

Using Low-Rank Tensors for the Recovery of MPI System Matrices. *Grosser, M., +, TCI 2020 1389-1402*

**Cameras**

360 Panorama Synthesis from a Sparse Set of Images on a Low-Power Device. *Sumantri, J.S., +, TCI 2020 1179-1193*

A Unified Learning-Based Framework for Light Field Reconstruction From Coded Projections. *Vadathya, A.K., +, TCI 2020 304-316*

Building Stereoscopic Zoomer via Global and Local Warping Optimization. *Shao, F., +, TCI 2020 1622-1635*

DAViS Camera Optical Flow. *Almatrafi, M., +, TCI 2020 396-407*

Design and Calibration of a Fast Flying-Dot Projector for Dynamic Light Transport Acquisition. *Henderson, K., +, TCI 2020 529-543*

Full View Optical Flow Estimation Leveraged From Light Field Superpixel. *Zhu, H., +, TCI 2020 12-23*

High-fidelity View Synthesis for Light Field Imaging With Extended Pseudo 4DCNN. *Wang, Y., +, TCI 2020 830-842*

High-Speed Imaging Using CMOS Image Sensor With Quasi Pixel-Wise Exposure. *Yoshida, M., +, TCI 2020 463-476*

Joint Image and Depth Estimation With Mask-Based Lensless Cameras. *Zheng, Y., +, TCI 2020 1167-1178*

Learning Stereo High Dynamic Range Imaging From A Pair of Cameras With Different Exposure Parameters. *Chen, Y., +, TCI 2020 1044-1058*

Microlens Array Grid Estimation, Light Field Decoding, and Calibration. *Schambach, M., +, TCI 2020 591-603*

Multi-Frame RGB/NIR Imaging for Low-Light Color Image Super-Resolution. *Honda, T., +, TCI 2020 248-262*

Robust Motion Compensation for Event Cameras With Smooth Constraint. *Xu, J., +, TCI 2020 604-614*

S2DNet: Depth Estimation From Single Image and Sparse Samples. *Hambarde, P., +, TCI 2020 806-817*

Zero-Shot Depth Estimation From Light Field Using A Convolutional Neural Network. *Peng, J., +, TCI 2020 682-696*

**Cancer**

Microwave Breast Imaging Using a Dry Setup. *Felicio, J.M., +, TCI 2020 167-180*

**Cardiology**

Reconstruction of Image Sequences From Ungated and Scanning-Aberrated Laser Scanning Microscopy Images of the Beating Heart. *Mariani, O., +, TCI 2020 385-395*

**CMOS image sensors**

High-Speed Imaging Using CMOS Image Sensor With Quasi Pixel-Wise Exposure. *Yoshida, M., +, TCI 2020 463-476*

**Coherence**

Joint Learning of Measurement Matrix and Signal Reconstruction via Deep Learning. *Mdrafhi, R., +, TCI 2020 818-829*

**Coils**

WARF: A Weighted-Sum Approach to Radial MRI Image Reconstruction With a Rotating RF Coil. *Phair, A., +, TCI 2020 558-568*

**Complexity theory**

Unbalanced Optimal Transport Regularization for Imaging Problems. *Lee, J., +, TCI 2020 1219-1232*

**Compressed sensing**

Compressive Holography From Poisson Noise Plagued Holograms Using Expectation-Maximization. *Kumar, S., +, TCI 2020 857-867*

Deep-Learning-Based Optimization of the Under-Sampling Pattern in MRI. *Bahadir, C.D., +, TCI 2020 1139-1152*

Exact Multistatic Interferometric Imaging via Generalized Wirtinger Flow. *Yonel, B., +, TCI 2020 711-726*

IFR-Net: Iterative Feature Refinement Network for Compressed Sensing MRI. *Liu, Y., +, TCI 2020 434-446*

Tensor Representation for Three-Dimensional Radar Target Imaging With Sparsely Sampled Data. *Qiu, W., +, TCI 2020 263-275*

**Computational complexity**

Adaptive Near-Infrared and Visible Fusion for Fast Image Enhancement. *Awad, M., +, TCI 2020 408-418*

Computational Implementation and Asymptotic Statistical Performance Analysis of Range Frequency Autocorrelation Function for Radar High-Speed Target Detection. *Li, Y., +, TCI 2020 1297-1308*

Exact Multistatic Interferometric Imaging via Generalized Wirtinger Flow. *Yonel, B., +, TCI 2020 711-726*

- Generalized Phase Gradient Autofocus Using Semidefinite Relaxation Phase Estimation. *Evers, A., +, TCI 2020 291-303*  
 Sample Efficient Fourier Ptychography for Structured Data. *Jagatap, G., +, TCI 2020 344-357*  
 Tensor Representation for Three-Dimensional Radar Target Imaging With Sparsely Sampled Data. *Qiu, W., +, TCI 2020 263-275*

#### Computational modeling

- 360 Panorama Synthesis from a Sparse Set of Images on a Low-Power Device. *Sumantri, J.S., +, TCI 2020 1179-1193*  
 Deep-Learning-Based Optimization of the Under-Sampling Pattern in MRI. *Bahadir, C.D., +, TCI 2020 1139-1152*  
 Expectation-Maximization Based Approach to 3D Reconstruction From Single-Waveform Multispectral Lidar Data. *Legros, Q., +, TCI 2020 1033-1043*  
 Learned Full-Sampling Reconstruction From Incomplete Data. *Cheng, W., +, TCI 2020 945-957*  
 Memory-Efficient Learning for Large-Scale Computational Imaging. *Kellman, M., +, TCI 2020 1403-1414*  
 Scene Flow Estimation From Sparse Light Fields Using a Local 4D Affine Model. *David, P., +, TCI 2020 791-805*  
 Unbalanced Optimal Transport Regularization for Imaging Problems. *Lee, J., +, TCI 2020 1219-1232*

#### Computed tomography

- An End-to-End Deep Network for Reconstructing CT Images Directly From Sparse Sinograms. *Wang, W., +, TCI 2020 1548-1560*  
 Automated FDK-Filter Selection for Cone-Beam CT in Research Environments. *Lagerwerf, M.J., +, TCI 2020 739-748*  
 CaGAN: A Cycle-Consistent Generative Adversarial Network With Attention for Low-Dose CT Imaging. *Huang, Z., +, TCI 2020 1203-1218*  
 Contrast-Medium Anisotropy-Aware Tensor Total Variation Model for Robust Cerebral Perfusion CT Reconstruction With Low-Dose Scans. *Zhang, Y., +, TCI 2020 1375-1388*  
 Learned Full-Sampling Reconstruction From Incomplete Data. *Cheng, W., +, TCI 2020 945-957*

#### Computer architecture

- Blind Binocular Visual Quality Predictor Using Deep Fusion Network. *Zhou, W., +, TCI 2020 883-893*  
 Joint Learning of Measurement Matrix and Signal Reconstruction via Deep Learning. *Mdrafi, R., +, TCI 2020 818-829*

#### Computer games

- Fast Retinomorphic Event-Driven Representations for Video Gameplay and Action Recognition. *Chen, H., +, TCI 2020 276-290*

#### Computer vision

- 360 Panorama Synthesis from a Sparse Set of Images on a Low-Power Device. *Sumantri, J.S., +, TCI 2020 1179-1193*  
 Adaptive Quantile Sparse Image (AQuaSI) Prior for Inverse Imaging Problems. *Schirrmacher, F., +, TCI 2020 503-517*

#### Computerized tomography

- A Convex Formulation for Binary Tomography. *Kadu, A., +, TCI 2020 1-11*  
 Coded Aperture Optimization in X-Ray Tomography via Sparse Principal Component Analysis. *Mao, T., +, TCI 2020 73-86*  
 Fast Enhanced CT Metal Artifact Reduction Using Data Domain Deep Learning. *Ghani, M.U., +, TCI 2020 181-193*  
 Photon Allocation Strategy in Region-of-Interest Tomographic Imaging. *Zhu, Z., +, TCI 2020 125-137*  
 PI-Line Difference for Alignment and Motion-Correction of Cone-Beam Helical-Trajectory Micro-Tomography Data. *Delgado-Friedrichs, O., +, TCI 2020 24-33*  
 SISTER: Spectral-Image Similarity-Based Tensor With Enhanced-Sparsity Reconstruction for Sparse-View Multi-Energy CT. *Hu, D., +, TCI 2020 477-490*  
 Truncation Correction for X-ray Phase-Contrast Region-of-Interest Tomography. *Felsner, L., +, TCI 2020 625-639*

#### Conductivity

- A Point Constrained Boundary Reconstruction Framework for Ultrasound Guided Electrical Impedance Tomography. *Ren, S., +, TCI 2020 1336-1350*

#### Convergence

- Automated Regularization Parameter Selection Using Continuation Based Proximal Method for Compressed Sensing MRI. *Mathew, R.S., +, TCI 2020 1309-1319*  
 Block Coordinate Regularization by Denoising. *Sun, Y., +, TCI 2020 908-921*

#### Convex programming

- A Convex Formulation for Binary Tomography. *Kadu, A., +, TCI 2020 1-11*

#### Convolution

- Blind Image Deconvolution Using Deep Generative Priors. *Asim, M., +, TCI 2020 1493-1506*  
 Fast Joint Multiband Reconstruction From Wideband Images Based on Low-Rank Approximation. *Hadj-Youcef, M.A., +, TCI 2020 922-933*  
 Reconstruction of Hyperspectral Data From RGB Images With Prior Category Information. *Yan, L., +, TCI 2020 1070-1081*  
 Sharp Computational Images From Diffuse Beams: Factorization of the Discrete Delta Function. *Svalbe, I.D., +, TCI 2020 1258-1271*  
 Soft Autoencoder and Its Wavelet Adaptation Interpretation. *Fan, F., +, TCI 2020 1245-1257*

#### Convolutional codes

- 3D Localization for Light-Field Microscopy via Convolutional Sparse Coding on Epipolar Images. *Song, P., +, TCI 2020 1017-1032*

#### Convolutional neural networks

- CNF+CT: Context Network Fusion of Cascade-Trained Convolutional Neural Networks for Image Super-Resolution. *Ren, H., +, TCI 2020 447-462*  
 Embedding Deep Learning in Inverse Scattering Problems. *Sanghyi, Y., +, TCI 2020 46-56*  
 Fast Retinomorphic Event-Driven Representations for Video Gameplay and Action Recognition. *Chen, H., +, TCI 2020 276-290*  
 IFR-Net: Iterative Feature Refinement Network for Compressed Sensing MRI. *Liu, Y., +, TCI 2020 434-446*  
 Super-Resolution PET Imaging Using Convolutional Neural Networks. *Song, T., +, TCI 2020 518-528*  
 VIF-Net: An Unsupervised Framework for Infrared and Visible Image Fusion. *Hou, R., +, TCI 2020 640-651*  
 Zero-Shot Depth Estimation From Light Field Using A Convolutional Neural Network. *Peng, J., +, TCI 2020 682-696*

#### Correlation

- Computational Implementation and Asymptotic Statistical Performance Analysis of Range Frequency Autocorrelation Function for Radar High-Speed Target Detection. *Li, Y., +, TCI 2020 1297-1308*  
 Contrast-Medium Anisotropy-Aware Tensor Total Variation Model for Robust Cerebral Perfusion CT Reconstruction With Low-Dose Scans. *Zhang, Y., +, TCI 2020 1375-1388*  
 Sharp Computational Images From Diffuse Beams: Factorization of the Discrete Delta Function. *Svalbe, I.D., +, TCI 2020 1258-1271*

#### Cost function

- Efficient Regularized Field Map Estimation in 3D MRI. *Lin, C.Y., +, TCI 2020 1451-1458*  
 High-Contrast Reflection Tomography With Total-Variation Constraints. *Kadu, A., +, TCI 2020 1523-1536*

#### Covariance matrices

- Coding Mask Design for Single Sensor Ultrasound Imaging. *van der Meulen, P., +, TCI 2020 358-373*  
 Speckle Suppression in Multi-Channel Coherent Imaging: A Tractable Bayesian Approach. *Tucker, D., +, TCI 2020 1429-1439*

#### D

#### Data models

- Coherent Plug-and-Play: Digital Holographic Imaging Through Atmospheric Turbulence Using Model-Based Iterative Reconstruction and Convolutional Neural Networks. *Pellizzari, C.J., +, TCI 2020 1607-1621*  
 Fast Joint Multiband Reconstruction From Wideband Images Based on Low-Rank Approximation. *Hadj-Youcef, M.A., +, TCI 2020 922-933*  
 Learned Full-Sampling Reconstruction From Incomplete Data. *Cheng, W., +, TCI 2020 945-957*

**Data structures**

Sample Efficient Fourier Ptychography for Structured Data. *Jagatap, G., +, TCI 2020 344-357*

**Decoding**

Microlens Array Grid Estimation, Light Field Decoding, and Calibration. *Schambach, M., +, TCI 2020 591-603*

**Deconvolution**

Blind Image Deconvolution Using Deep Generative Priors. *Asim, M., +, TCI 2020 1493-1506*

CycleGAN With a Blur Kernel for Deconvolution Microscopy: Optimal Transport Geometry. *Lim, S., +, TCI 2020 1127-1138*

Image Reconstruction of Static and Dynamic Scenes Through Anisoplanatic Turbulence. *Mao, Z., +, TCI 2020 1415-1428*

**Deep learning**

Boosting One-Shot Spectral Super-Resolution Using Transfer Learning. *Wei, W., +, TCI 2020 1459-1470*

Collaborative Deep Learning for Super-Resolving Blurry Text Images. *Quan, Y., +, TCI 2020 778-790*

Joint Learning of Measurement Matrix and Signal Reconstruction via Deep Learning. *Mdrafi, R., +, TCI 2020 818-829*

Unpaired Deep Learning for Accelerated MRI Using Optimal Transport Driven CycleGAN. *Oh, G., +, TCI 2020 1285-1296*

**Degradation**

Hyperspectral and Multispectral Image Fusion Under Spectrally Varying Spatial Blurs – Application to High Dimensional Infrared Astronomical Imaging. *Guilloteau, C., +, TCI 2020 1362-1374*

**Detectors**

An End-to-End Deep Network for Reconstructing CT Images Directly From Sparse Sinograms. *Wang, W., +, TCI 2020 1548-1560*

Analytic Inversion of a Radon Transform on Double Circular Arcs With Applications in Compton Scattering Tomography. *Tarpau, C., +, TCI 2020 958-967*

Coded Aperture Optimization in Spatial Spectral Compressive Spectral Imagers. *Salazar, E., +, TCI 2020 764-777*

Compressive Spectral Imaging Based on Hexagonal Blue Noise Coded Apertures. *Zhang, H., +, TCI 2020 749-763*

Towards Reducing Severe Defocus Spread Effects for Multi-Focus Image Fusion via an Optimization Based Strategy. *Xu, S., +, TCI 2020 1561-1570*

**Diagnostic radiography**

PI-Line Difference for Alignment and Motion-Correction of Cone-Beam Helical-Trajectory Micro-Tomography Data. *Delgado-Friedrichs, O., +, TCI 2020 24-33*

Truncation Correction for X-ray Phase-Contrast Region-of-Interest Tomography. *Felsner, L., +, TCI 2020 625-639*

**Dictionaries**

3D Localization for Light-Field Microscopy via Convolutional Sparse Coding on Epipolar Images. *Song, P., +, TCI 2020 1017-1032*

**Diffraction**

Compressive Holography From Poisson Noise Plagued Holograms Using Expectation-Maximization. *Kumar, S., +, TCI 2020 857-867*

**Diffraction gratings**

Truncation Correction for X-ray Phase-Contrast Region-of-Interest Tomography. *Felsner, L., +, TCI 2020 625-639*

**Diffusion**

Four-Dimensional Anisotropic Diffusion Framework With PDEs for Light Field Regularization and Inverse Problems. *Allain, P., +, TCI 2020 109-124*

**Digital photography**

Removing Reflection From a Single Image With Ghosting Effect. *Huang, Y., +, TCI 2020 34-45*

**Discrete Fourier transforms**

Computational Implementation and Asymptotic Statistical Performance Analysis of Range Frequency Autocorrelation Function for Radar High-Speed Target Detection. *Li, Y., +, TCI 2020 1297-1308*

**Diseases**

Low-Rank Tensor Models for Improved Multidimensional MRI: Application to Dynamic Cardiac  $T_1$  Mapping. *Yaman, B., +, TCI 2020 194-207*

**Dispersion**

Compressive Spectral Imaging Based on Hexagonal Blue Noise Coded Apertures. *Zhang, H., +, TCI 2020 749-763*

**Distortion**

Dynamic Image Sampling Using a Novel Variance Based Probability Mass Function. *Grosche, S., +, TCI 2020 1440-1450*

**Doppler radar**

Computational Efficient Refocusing and Estimation Method for Radar Moving Target With Unknown Time Information. *Li, X., +, TCI 2020 544-557*

**Dynamic range**

HDR Imaging With Quanta Image Sensors: Theoretical Limits and Optimal Reconstruction. *Gnanasambandam, A., +, TCI 2020 1571-1585*

Learning Stereo High Dynamic Range Imaging From A Pair of Cameras With Different Exposure Parameters. *Chen, Y., +, TCI 2020 1044-1058*

Sharp Computational Images From Diffuse Beams: Factorization of the Discrete Delta Function. *Svalbe, I.D., +, TCI 2020 1258-1271*

**Dynamics**

Dynamic Analysis of Spin Satellites Through the Quadratic Phase Estimation in Multiple-Station Radar Images. *Zhou, Y., +, TCI 2020 894-907*

**E****Earth**

Hyperspectral and Multispectral Image Fusion Under Spectrally Varying Spatial Blurs – Application to High Dimensional Infrared Astronomical Imaging. *Guilloteau, C., +, TCI 2020 1362-1374*

**Eigenvalues and eigenfunctions**

Four-Dimensional Anisotropic Diffusion Framework With PDEs for Light Field Regularization and Inverse Problems. *Allain, P., +, TCI 2020 109-124*

Improved Tumor Detection via Quantitative Microwave Breast Imaging Using Eigenfunction-Based Prior. *Abdollahi, N., +, TCI 2020 1194-1202*

**Electric fields**

Application of Subspace-Based Distorted-Born Iteration Method in Imaging Biaxial Anisotropic Scatterer. *Ye, X., +, TCI 2020 1486-1492*

**Electric variables measurement**

A Point Constrained Boundary Reconstruction Framework for Ultrasound Guided Electrical Impedance Tomography. *Ren, S., +, TCI 2020 1336-1350*

**Electromagnetic heating**

Estimation of Moisture Content Distribution in Porous Foam Using Microwave Tomography With Neural Networks. *Lahivaara, T., +, TCI 2020 1351-1361*

**Electromagnetic scattering**

Solving Phaseless Highly Nonlinear Inverse Scattering Problems With Contraction Integral Equation for Inversion. *Zhang, L., +, TCI 2020 1106-1116*

**Electromagnetic wave scattering**

Embedding Deep Learning in Inverse Scattering Problems. *Sanghvi, Y., +, TCI 2020 46-56*

**Electromagnetics**

Solving Phaseless Highly Nonlinear Inverse Scattering Problems With Contraction Integral Equation for Inversion. *Zhang, L., +, TCI 2020 1106-1116*

Unsupervised Algorithm for Brain Anomalies Localization in Electromagnetic Imaging. *Brankovic, A., +, TCI 2020 1595-1606*

**Encoding**

Blind Binocular Visual Quality Predictor Using Deep Fusion Network. *Zhou, W., +, TCI 2020 883-893*

**Estimation**

360 Panorama Synthesis from a Sparse Set of Images on a Low-Power Device. *Sumantri, J.S., +, TCI 2020 1179-1193*

Block Coordinate Regularization by Denoising. *Sun, Y., +, TCI 2020 908-921*

Efficient Regularized Field Map Estimation in 3D MRI. *Lin, C.Y., +, TCI 2020 1451-1458*

Expectation-Maximization Based Approach to 3D Reconstruction From Single-Waveform Multispectral Lidar Data. *Legros, Q., +, TCI 2020 1033-1043*

Joint Image and Depth Estimation With Mask-Based Lensless Cameras. *Zheng, Y., +, TCI 2020 1167-1178*

- Multi-Angular Epipolar Geometry Based Light Field Angular Reconstruction Network. *Liu, D., +, TCI 2020 1507-1522*
- S2DNet: Depth Estimation From Single Image and Sparse Samples. *Hambardzumyan, P., +, TCI 2020 806-817*
- Scene Flow Estimation From Sparse Light Fields Using a Local 4D Affine Model. *David, P., +, TCI 2020 791-805*
- Speckle Suppression in Multi-Channel Coherent Imaging: A Tractable Bayesian Approach. *Tucker, D., +, TCI 2020 1429-1439*
- Extrapolation**
- Frequency Domain Based Virtual Detector for Heterogeneous Media in Photoacoustic Imaging. *Jin, H., +, TCI 2020 569-578*
- Pre-migration: A General Extension for Photoacoustic Imaging Reconstruction. *Jin, H., +, TCI 2020 1097-1105*

**F****Face detection**

- High-Speed Phase-Shifting 3D Profilometry on Human Face Assisted by Statistical Model. *Yu, Y., +, TCI 2020 1007-1016*
- Robust Low-Rank Tensor Ring Completion. *Huang, H., +, TCI 2020 1117-1126*

**Fans**

- An End-to-End Deep Network for Reconstructing CT Images Directly From Sparse Sinograms. *Wang, W., +, TCI 2020 1548-1560*

**Fast Fourier transforms**

- Frequency Domain Based Virtual Detector for Heterogeneous Media in Photoacoustic Imaging. *Jin, H., +, TCI 2020 569-578*

**Fats**

- Efficient Regularized Field Map Estimation in 3D MRI. *Lin, C.Y., +, TCI 2020 1451-1458*

**Feature extraction**

- Adaptive Near-Infrared and Visible Fusion for Fast Image Enhancement. *Awad, M., +, TCI 2020 408-418*

- Blind Binocular Visual Quality Predictor Using Deep Fusion Network. *Zhou, W., +, TCI 2020 883-893*

- Learning Spatial-Spectral Prior for Super-Resolution of Hyperspectral Imagery. *Jiang, J., +, TCI 2020 1082-1096*

- Microwave Breast Imaging Using a Dry Setup. *Felicio, J.M., +, TCI 2020 167-180*

- VIF-Net: An Unsupervised Framework for Infrared and Visible Image Fusion. *Hou, R., +, TCI 2020 640-651*

**Finite element analysis**

- A Time-Domain Multigrid Solver With Higher-Order Born Approximation for Full-Wave Radar Tomography of a Complex-Shaped Target. *Sorsa, L., +, TCI 2020 579-590*

**Fluorescence**

- Reconstruction of Image Sequences From Ungated and Scanning-Aberrated Laser Scanning Microscopy Images of the Beating Heart. *Mariani, O., +, TCI 2020 385-395*

**Fourier transforms**

- Computational Efficient Refocusing and Estimation Method for Radar Moving Target With Unknown Time Information. *Li, X., +, TCI 2020 544-557*

**Frequency measurement**

- Collaborative Deep Learning for Super-Resolving Blurry Text Images. *Quan, Y., +, TCI 2020 778-790*

- High-Contrast Reflection Tomography With Total-Variation Constraints. *Kadu, A., +, TCI 2020 1523-1536*

**Frequency-domain analysis**

- Frequency Domain Based Virtual Detector for Heterogeneous Media in Photoacoustic Imaging. *Jin, H., +, TCI 2020 569-578*

**G****Gallium nitride**

- CycleGAN With a Blur Kernel for Deconvolution Microscopy: Optimal Transport Geometry. *Lim, S., +, TCI 2020 1127-1138*

- Fast Multi-Focus Ultrasound Image Recovery Using Generative Adversarial Networks. *Goudarzi, S., +, TCI 2020 1272-1284*

- Unpaired Deep Learning for Accelerated MRI Using Optimal Transport Driven CycleGAN. *Oh, G., +, TCI 2020 1285-1296*

**Gaussian noise**

- Coded Aperture Optimization in X-Ray Tomography via Sparse Principal Component Analysis. *Mao, T., +, TCI 2020 73-86*

**Generative adversarial networks**

- CaGAN: A Cycle-Consistent Generative Adversarial Network With Attention for Low-Dose CT Imaging. *Huang, Z., +, TCI 2020 1203-1218*

- CycleGAN With a Blur Kernel for Deconvolution Microscopy: Optimal Transport Geometry. *Lim, S., +, TCI 2020 1127-1138*

- Fast Multi-Focus Ultrasound Image Recovery Using Generative Adversarial Networks. *Goudarzi, S., +, TCI 2020 1272-1284*

- Unpaired Deep Learning for Accelerated MRI Using Optimal Transport Driven CycleGAN. *Oh, G., +, TCI 2020 1285-1296*

**Generators**

- Blind Image Deconvolution Using Deep Generative Priors. *Asim, M., +, TCI 2020 1493-1506*

- CycleGAN With a Blur Kernel for Deconvolution Microscopy: Optimal Transport Geometry. *Lim, S., +, TCI 2020 1127-1138*

- Fast Multi-Focus Ultrasound Image Recovery Using Generative Adversarial Networks. *Goudarzi, S., +, TCI 2020 1272-1284*

**Geometry**

- An End-to-End Deep Network for Reconstructing CT Images Directly From Sparse Sinograms. *Wang, W., +, TCI 2020 1548-1560*

- Automated FDK-Filter Selection for Cone-Beam CT in Research Environments. *Lagerwerf, M.J., +, TCI 2020 739-748*

- High-fidelity View Synthesis for Light Field Imaging With Extended Pseudo 4DCNN. *Wang, Y., +, TCI 2020 830-842*

- Multi-Angular Epipolar Geometry Based Light Field Angular Reconstruction Network. *Liu, D., +, TCI 2020 1507-1522*

**Geophysical image processing**

- Deep Generative Endmember Modeling: An Application to Unsupervised Spectral Unmixing. *Borszoi, R.A., +, TCI 2020 374-384*

**Geophysical measurements**

- High-Contrast Reflection Tomography With Total-Variation Constraints. *Kadu, A., +, TCI 2020 1523-1536*

**Geophysical techniques**

- Exact Multistatic Interferometric Imaging via Generalized Wirtinger Flow. *Yonet, B., +, TCI 2020 711-726*

- InversionNet: An Efficient and Accurate Data-Driven Full Waveform Inversion. *Wu, Y., +, TCI 2020 419-433*

**Gradient methods**

- Efficient and Interpretable Deep Blind Image Deblurring Via Algorithm Unrolling. *Li, Y., +, TCI 2020 666-681*

- Exact Multistatic Interferometric Imaging via Generalized Wirtinger Flow. *Yonet, B., +, TCI 2020 711-726*

- Gauss–Newton Optimization for Phase Recovery From the Bispectrum. *Herring, J.L., +, TCI 2020 235-247*

- The Practicality of Stochastic Optimization in Imaging Inverse Problems. *Tang, J., +, TCI 2020 1471-1485*

**Graphics processing units**

- Inverse Scattering via Transmission Matrices: Broadband Illumination and Fast Phase Retrieval Algorithms. *Sharma, M.K., +, TCI 2020 95-108*

**Green's function methods**

- Three-Dimensional Optical Diffraction Tomography With Lipmann-Schwinger Model. *Pham, T., +, TCI 2020 727-738*

**H****Head**

- Unsupervised Algorithm for Brain Anomalies Localization in Electromagnetic Imaging. *Brankovic, A., +, TCI 2020 1595-1606*

**Hemodynamics**

- Reconstruction of Image Sequences From Ungated and Scanning-Aberrated Laser Scanning Microscopy Images of the Beating Heart. *Mariani, O., +, TCI 2020 385-395*

**Heuristic algorithms**

- Dynamic Analysis of Spin Satellites Through the Quadratic Phase Estimation in Multiple-Station Radar Images. *Zhou, Y., +, TCI 2020 894-907*

- Dynamic Image Sampling Using a Novel Variance Based Probability Mass Function. *Grosche, S., +, TCI 2020 1440-1450*
- Histograms**  
Unbalanced Optimal Transport Regularization for Imaging Problems. *Lee, J., +, TCI 2020 1219-1232*
- Holography**  
Compressive Holography From Poisson Noise Plagued Holograms Using Expectation-Maximization. *Kumar, S., +, TCI 2020 857-867*  
Resolution Analysis in a Lens-Free On-Chip Digital Holographic Microscope. *Zhang, J., +, TCI 2020 697-710*
- Hyperspectral imaging**  
Deep Generative Endmember Modeling: An Application to Unsupervised Spectral Unmixing. *Borsoi, R.A., +, TCI 2020 374-384*  
Fast Joint Multiband Reconstruction From Wideband Images Based on Low-Rank Approximation. *Hadj-Youcef, M.A., +, TCI 2020 922-933*  
Hyperspectral and Multispectral Image Fusion Under Spectrally Varying Spatial Blurs – Application to High Dimensional Infrared Astronomical Imaging. *Guilloteau, C., +, TCI 2020 1362-1374*  
Learning Spatial-Spectral Prior for Super-Resolution of Hyperspectral Imagery. *Jiang, J., +, TCI 2020 1082-1096*  
Reconstruction of Hyperspectral Data From RGB Images With Prior Category Information. *Yan, L., +, TCI 2020 1070-1081*
- Hyperspectral sensors**  
Coded Aperture Optimization in Spatial Spectral Compressive Spectral Imagers. *Salazar, E., +, TCI 2020 764-777*
- I**
- Image capture**  
High-Speed Imaging Using CMOS Image Sensor With Quasi Pixel-Wise Exposure. *Yoshida, M., +, TCI 2020 463-476*
- Image coding**  
360 Panorama Synthesis from a Sparse Set of Images on a Low-Power Device. *Sumantri, J.S., +, TCI 2020 1179-1193*  
A Unified Learning-Based Framework for Light Field Reconstruction From Coded Projections. *Vadathya, A.K., +, TCI 2020 304-316*  
Coded Aperture Optimization in Spatial Spectral Compressive Spectral Imagers. *Salazar, E., +, TCI 2020 764-777*  
Compressive Holography From Poisson Noise Plagued Holograms Using Expectation-Maximization. *Kumar, S., +, TCI 2020 857-867*  
Efficient and Interpretable Deep Blind Image Deblurring Via Algorithm Unrolling. *Li, Y., +, TCI 2020 666-681*  
Joint Learning of Measurement Matrix and Signal Reconstruction via Deep Learning. *Mdrafi, R., +, TCI 2020 818-829*
- Image color analysis**  
Adaptive Near-Infrared and Visible Fusion for Fast Image Enhancement. *Awad, M., +, TCI 2020 408-418*  
Adaptive Quantile Sparse Image (AQaSI) Prior for Inverse Imaging Problems. *Schirrmacher, F., +, TCI 2020 503-517*  
Color Filter Arrays for Quanta Image Sensors. *Elgendi, O.A., +, TCI 2020 652-665*  
Fast Retinomorphic Event-Driven Representations for Video Gameplay and Action Recognition. *Chen, H., +, TCI 2020 276-290*  
Multi-Frame RGB/NIR Imaging for Low-Light Color Image Super-Resolution. *Honda, T., +, TCI 2020 248-262*  
Multimodal Image Super-Resolution via Joint Sparse Representations Induced by Coupled Dictionaries. *Song, P., +, TCI 2020 57-72*
- Image denoising**  
Adaptive Quantile Sparse Image (AQaSI) Prior for Inverse Imaging Problems. *Schirrmacher, F., +, TCI 2020 503-517*  
Design and Calibration of a Fast Flying-Dot Projector for Dynamic Light Transport Acquisition. *Henderson, K., +, TCI 2020 529-543*  
Four-Dimensional Anisotropic Diffusion Framework With PDEs for Light Field Regularization and Inverse Problems. *Allain, P., +, TCI 2020 109-124*  
IFR-Net: Iterative Feature Refinement Network for Compressed Sensing MRI. *Liu, Y., +, TCI 2020 434-446*
- Multi-Frame RGB/NIR Imaging for Low-Light Color Image Super-Resolution. *Honda, T., +, TCI 2020 248-262*  
Noise2Inverse: Self-Supervised Deep Convolutional Denoising for Tomography. *Hendriksen, A.A., +, TCI 2020 1320-1335*  
Online Adaptive Image Reconstruction (OnAIR) Using Dictionary Models. *Moore, B.E., +, TCI 2020 153-166*  
SISTER: Spectral-Image Similarity-Based Tensor With Enhanced-Sparsity Reconstruction for Sparse-View Multi-Energy CT. *Hu, D., +, TCI 2020 477-490*  
VIF-Net: An Unsupervised Framework for Infrared and Visible Image Fusion. *Hou, R., +, TCI 2020 640-651*
- Image enhancement**  
Adaptive Near-Infrared and Visible Fusion for Fast Image Enhancement. *Awad, M., +, TCI 2020 408-418*
- Image filtering**  
Adaptive Quantile Sparse Image (AQaSI) Prior for Inverse Imaging Problems. *Schirrmacher, F., +, TCI 2020 503-517*  
Color Filter Arrays for Quanta Image Sensors. *Elgendi, O.A., +, TCI 2020 652-665*
- Image fusion**  
Adaptive Near-Infrared and Visible Fusion for Fast Image Enhancement. *Awad, M., +, TCI 2020 408-418*  
Learning Stereo High Dynamic Range Imaging From A Pair of Cameras With Different Exposure Parameters. *Chen, Y., +, TCI 2020 1044-1058*  
Multi-Frame RGB/NIR Imaging for Low-Light Color Image Super-Resolution. *Honda, T., +, TCI 2020 248-262*  
Towards Reducing Severe Defocus Spread Effects for Multi-Focus Image Fusion via an Optimization Based Strategy. *Xu, S., +, TCI 2020 1561-1570*  
VIF-Net: An Unsupervised Framework for Infrared and Visible Image Fusion. *Hou, R., +, TCI 2020 640-651*
- Image matching**  
Neumann Networks for Linear Inverse Problems in Imaging. *Gilton, D., +, TCI 2020 328-343*
- Image motion analysis**  
Fast Retinomorphic Event-Driven Representations for Video Gameplay and Action Recognition. *Chen, H., +, TCI 2020 276-290*  
Multi-Frame RGB/NIR Imaging for Low-Light Color Image Super-Resolution. *Honda, T., +, TCI 2020 248-262*
- Image processing**  
Microlens Array Grid Estimation, Light Field Decoding, and Calibration. *Schambach, M., +, TCI 2020 591-603*
- Image quality**  
CaGAN: A Cycle-Consistent Generative Adversarial Network With Attention for Low-Dose CT Imaging. *Huang, Z., +, TCI 2020 1203-1218*  
Fast Pixelated Lithographic Source and Mask Joint Optimization Based on Compressive Sensing. *Wang, Z., +, TCI 2020 981-992*
- Image recognition**  
Fast Retinomorphic Event-Driven Representations for Video Gameplay and Action Recognition. *Chen, H., +, TCI 2020 276-290*
- Image reconstruction**  
A Convex Formulation for Binary Tomography. *Kadu, A., +, TCI 2020 1-11*  
A Point Constrained Boundary Reconstruction Framework for Ultrasound Guided Electrical Impedance Tomography. *Ren, S., +, TCI 2020 1336-1350*  
A Unified Learning-Based Framework for Light Field Reconstruction From Coded Projections. *Vadathya, A.K., +, TCI 2020 304-316*  
An End-to-End Deep Network for Reconstructing CT Images Directly From Sparse Sinograms. *Wang, W., +, TCI 2020 1548-1560*  
Application of Subspace-Based Distorted-Born Iteration Method in Imaging Biaxial Anisotropic Scatterer. *Ye, X., +, TCI 2020 1486-1492*  
Automated FDK-Filter Selection for Cone-Beam CT in Research Environments. *Lagerwerf, M.J., +, TCI 2020 739-748*  
Automated Regularization Parameter Selection Using Continuation Based Proximal Method for Compressed Sensing MRI. *Mathew, R.S., +, TCI 2020 1309-1313*  
Autoregressive Model-Based Reconstruction of Quantitative Acoustic Maps From RF Signals Sampled at Innovation Rate. *Kim, J., +, TCI 2020 993-1006*

- Block Coordinate Regularization by Denoising. *Sun, Y., +, TCI 2020 908-921*
- Boosting One-Shot Spectral Super-Resolution Using Transfer Learning. *Wei, W., +, TCI 2020 1459-1470*
- CaGAN: A Cycle-Consistent Generative Adversarial Network With Attention for Low-Dose CT Imaging. *Huang, Z., +, TCI 2020 1203-1218*
- Coded Aperture Optimization in X-Ray Tomography via Sparse Principal Component Analysis. *Mao, T., +, TCI 2020 73-86*
- Coding Mask Design for Single Sensor Ultrasound Imaging. *van der Meulen, P., +, TCI 2020 358-373*
- Coherent Plug-and-Play: Digital Holographic Imaging Through Atmospheric Turbulence Using Model-Based Iterative Reconstruction and Convolutional Neural Networks. *Pellizzari, C.J., +, TCI 2020 1607-1621*
- Compressive Holography From Poisson Noise Plagued Holograms Using Expectation-Maximization. *Kumar, S., +, TCI 2020 857-867*
- Compressive Spectral Imaging Based on Hexagonal Blue Noise Coded Apertures. *Zhang, H., +, TCI 2020 749-763*
- Computational Oblique Illumination Microscopy With Isotropic High Resolution. *Ma, X., +, TCI 2020 317-327*
- Contrast-Medium Anisotropy-Aware Tensor Total Variation Model for Robust Cerebral Perfusion CT Reconstruction With Low-Dose Scans. *Zhang, Y., +, TCI 2020 1375-1388*
- Deep Recursive Network for Hyperspectral Image Super-Resolution. *Wei, W., +, TCI 2020 1233-1244*
- Deep-Learning-Based Optimization of the Under-Sampling Pattern in MRI. *Bahadir, C.D., +, TCI 2020 1139-1152*
- Dynamic Image Sampling Using a Novel Variance Based Probability Mass Function. *Grosche, S., +, TCI 2020 1440-1450*
- Fast Enhanced CT Metal Artifact Reduction Using Data Domain Deep Learning. *Ghani, M.U., +, TCI 2020 181-193*
- Fast Joint Multiband Reconstruction From Wideband Images Based on Low-Rank Approximation. *Hadj-Youcef, M.A., +, TCI 2020 922-933*
- Fast Pixelated Lithographic Source and Mask Joint Optimization Based on Compressive Sensing. *Wang, Z., +, TCI 2020 981-992*
- Frequency Domain Based Virtual Detector for Heterogeneous Media in Photoacoustic Imaging. *Jin, H., +, TCI 2020 569-578*
- Gauss–Newton Optimization for Phase Recovery From the Bispectrum. *Herring, J.L., +, TCI 2020 235-247*
- HDR Imaging With Quanta Image Sensors: Theoretical Limits and Optimal Reconstruction. *Gnanasambandam, A., +, TCI 2020 1571-1585*
- High-fidelity View Synthesis for Light Field Imaging With Extended Pseudo 4DCNN. *Wang, Y., +, TCI 2020 830-842*
- IFR-Net: Iterative Feature Refinement Network for Compressed Sensing MRI. *Liu, Y., +, TCI 2020 434-446*
- Improved Tumor Detection via Quantitative Microwave Breast Imaging Using Eigenfunction-Based Prior. *Abdollahi, N., +, TCI 2020 1194-1202*
- Inverse Scattering via Transmission Matrices: Broadband Illumination and Fast Phase Retrieval Algorithms. *Sharma, M.K., +, TCI 2020 95-108*
- Joint Learning of Measurement Matrix and Signal Reconstruction via Deep Learning. *Mdrafi, R., +, TCI 2020 818-829*
- Learned Full-Sampling Reconstruction From Incomplete Data. *Cheng, W., +, TCI 2020 945-957*
- Learning Stereo High Dynamic Range Imaging From A Pair of Cameras With Different Exposure Parameters. *Chen, Y., +, TCI 2020 1044-1058*
- Low-Rank Tensor Models for Improved Multidimensional MRI: Application to Dynamic Cardiac  $T_1$  Mapping. *Yaman, B., +, TCI 2020 194-207*
- Memory-Efficient Learning for Large-Scale Computational Imaging. *Kellman, M., +, TCI 2020 1403-1414*
- Microwave Breast Imaging Using a Dry Setup. *Felicio, J.M., +, TCI 2020 167-180*
- MRI Super-Resolution With Ensemble Learning and Complementary Priors. *Lyu, Q., +, TCI 2020 615-624*
- Multi-Angular Epipolar Geometry Based Light Field Angular Reconstruction Network. *Liu, D., +, TCI 2020 1507-1522*
- Noise2Inverse: Self-Supervised Deep Convolutional Denoising for Tomography. *Hendriksen, A.A., +, TCI 2020 1320-1335*
- Online Adaptive Image Reconstruction (OnAIR) Using Dictionary Models. *Moore, B.E., +, TCI 2020 153-166*
- Photon Allocation Strategy in Region-of-Interest Tomographic Imaging. *Zhu, Z., +, TCI 2020 125-137*
- PI-Line Difference for Alignment and Motion-Correction of Cone-Beam Helical-Trajectory Micro-Tomography Data. *Delgado-Friedrichs, O., +, TCI 2020 24-33*
- Pre-migration: A General Extension for Photoacoustic Imaging Reconstruction. *Jin, H., +, TCI 2020 1097-1105*
- Reconstruction of Hyperspectral Data From RGB Images With Prior Category Information. *Yan, L., +, TCI 2020 1070-1081*
- Reconstruction of Image Sequences From Ungated and Scanning-Aberrated Laser Scanning Microscopy Images of the Beating Heart. *Mariani, O., +, TCI 2020 385-395*
- Removing Reflection From a Single Image With Ghosting Effect. *Huang, Y., +, TCI 2020 34-45*
- Resolution Analysis in a Lens-Free On-Chip Digital Holographic Microscope. *Zhang, J., +, TCI 2020 697-710*
- Robust Restoration of Sparse Multidimensional Single-Photon LiDAR Images. *Halimi, A., +, TCI 2020 138-152*
- Sample Efficient Fourier Ptychography for Structured Data. *Jagatap, G., +, TCI 2020 344-357*
- Segmentation-Driven Optimization For Iterative Reconstruction in Optical Projection Tomography: An Exploration. *Tang, X., +, TCI 2020 1537-1547*
- SISTER: Spectral-Image Similarity-Based Tensor With Enhanced-Sparsity Reconstruction for Sparse-View Multi-Energy CT. *Hu, D., +, TCI 2020 477-490*
- Super-Resolution PET Imaging Using Convolutional Neural Networks. *Song, T., +, TCI 2020 518-528*
- Tensor Representation for Three-Dimensional Radar Target Imaging With Sparsely Sampled Data. *Qiu, W., +, TCI 2020 263-275*
- The Practicality of Stochastic Optimization in Imaging Inverse Problems. *Tang, J., +, TCI 2020 1471-1485*
- Three-Dimensional Optical Diffraction Tomography With Lipmann-Schwinger Model. *Pham, T., +, TCI 2020 727-738*
- Through the Wall Scene Reconstruction Using Low Rank and Total Variation. *Tivive, F.H.C., +, TCI 2020 221-234*
- Truncation Correction for X-ray Phase-Contrast Region-of-Interest Tomography. *Felsner, L., +, TCI 2020 625-639*
- Unpaired Deep Learning for Accelerated MRI Using Optimal Transport Driven CycleGAN. *Oh, G., +, TCI 2020 1285-1296*
- WARF: A Weighted-Sum Approach to Radial MRI Image Reconstruction With a Rotating RF Coil. *Phair, A., +, TCI 2020 558-568*

#### Image representation

- Deep Generative Endmember Modeling: An Application to Unsupervised Spectral Unmixing. *Borsoi, R.A., +, TCI 2020 374-384*
- Fast Retinomorphic Event-Driven Representations for Video Gameplay and Action Recognition. *Chen, H., +, TCI 2020 276-290*
- Full View Optical Flow Estimation Leveraged From Light Field Superpixel. *Zhu, H., +, TCI 2020 12-23*
- MRI Super-Resolution With Ensemble Learning and Complementary Priors. *Lyu, Q., +, TCI 2020 615-624*
- Multimodal Image Super-Resolution via Joint Sparse Representations Induced by Coupled Dictionaries. *Song, P., +, TCI 2020 57-72*
- Online Adaptive Image Reconstruction (OnAIR) Using Dictionary Models. *Moore, B.E., +, TCI 2020 153-166*
- SISTER: Spectral-Image Similarity-Based Tensor With Enhanced-Sparsity Reconstruction for Sparse-View Multi-Energy CT. *Hu, D., +, TCI 2020 477-490*

#### Image resolution

- Adaptive Near-Infrared and Visible Fusion for Fast Image Enhancement. *Awad, M., +, TCI 2020 408-418*
- CNF+CT: Context Network Fusion of Cascade-Trained Convolutional Neural Networks for Image Super-Resolution. *Ren, H., +, TCI 2020 447-462*
- Collaborative Deep Learning for Super-Resolving Blurry Text Images. *Quan, Y., +, TCI 2020 778-790*

- Computational Oblique Illumination Microscopy With Isotropic High Resolution. *Ma, X., +, TCI 2020 317-327*
- CycleGAN With a Blur Kernel for Deconvolution Microscopy: Optimal Transport Geometry. *Lim, S., +, TCI 2020 1127-1138*
- DAViS Camera Optical Flow. *Almatrafi, M., +, TCI 2020 396-407*
- Fast Multi-Focus Ultrasound Image Recovery Using Generative Adversarial Networks. *Goudarzi, S., +, TCI 2020 1272-1284*
- Frequency Domain Based Virtual Detector for Heterogeneous Media in Photoacoustic Imaging. *Jin, H., +, TCI 2020 569-578*
- Low-Rank Tensor Models for Improved Multidimensional MRI: Application to Dynamic Cardiac  $T_1$  Mapping. *Yaman, B., +, TCI 2020 194-207*
- MRI Super-Resolution With Ensemble Learning and Complementary Priors. *Lyu, Q., +, TCI 2020 615-624*
- Multi-Frame RGB/NIR Imaging for Low-Light Color Image Super-Resolution. *Honda, T., +, TCI 2020 248-262*
- Multimodal Image Super-Resolution via Joint Sparse Representations Induced by Coupled Dictionaries. *Song, P., +, TCI 2020 57-72*
- Resolution Analysis in a Lens-Free On-Chip Digital Holographic Microscope. *Zhang, J., +, TCI 2020 697-710*
- S2DNet: Depth Estimation From Single Image and Sparse Samples. *Hambarde, P., +, TCI 2020 806-817*
- Sample Efficient Fourier Ptychography for Structured Data. *Jagatap, G., +, TCI 2020 344-357*
- SPRITE: 3-D SParse Radar Imaging TEchnique. *Benoudiba-Campanini, T., +, TCI 2020 1059-1069*
- Super-Resolution PET Imaging Using Convolutional Neural Networks. *Song, T., +, TCI 2020 518-528*
- Three-Dimensional Optical Diffraction Tomography With Lipmann-Schwinger Model. *Pham, T., +, TCI 2020 727-738*
- Zero-Shot Depth Estimation From Light Field Using A Convolutional Neural Network. *Peng, J., +, TCI 2020 682-696*
- Image restoration**
- Adaptive Near-Infrared and Visible Fusion for Fast Image Enhancement. *Awad, M., +, TCI 2020 408-418*
- Adaptive Quantile Sparse Image (AQuaSI) Prior for Inverse Imaging Problems. *Schirrmacher, F., +, TCI 2020 503-517*
- Blind Image Deconvolution Using Deep Generative Priors. *Asim, M., +, TCI 2020 1493-1506*
- Collaborative Deep Learning for Super-Resolving Blurry Text Images. *Quan, Y., +, TCI 2020 778-790*
- Efficient and Interpretable Deep Blind Image Deblurring Via Algorithm Unrolling. *Li, Y., +, TCI 2020 666-681*
- High-fidelity View Synthesis for Light Field Imaging With Extended Pseudo 4DCNN. *Wang, Y., +, TCI 2020 830-842*
- Multi-Angular Epipolar Geometry Based Light Field Angular Reconstruction Network. *Liu, D., +, TCI 2020 1507-1522*
- Multi-Frame RGB/NIR Imaging for Low-Light Color Image Super-Resolution. *Honda, T., +, TCI 2020 248-262*
- Removing Reflection From a Single Image With Ghosting Effect. *Huang, Y., +, TCI 2020 34-45*
- Robust Motion Compensation for Event Cameras With Smooth Constraint. *Xu, J., +, TCI 2020 604-614*
- Image sampling**
- Adaptive Quantile Sparse Image (AQuaSI) Prior for Inverse Imaging Problems. *Schirrmacher, F., +, TCI 2020 503-517*
- DAViS Camera Optical Flow. *Almatrafi, M., +, TCI 2020 396-407*
- Dynamic Image Sampling Using a Novel Variance Based Probability Mass Function. *Grosche, S., +, TCI 2020 1440-1450*
- High-Speed Imaging Using CMOS Image Sensor With Quasi Pixel-Wise Exposure. *Yoshida, M., +, TCI 2020 463-476*
- Online Adaptive Image Reconstruction (OnAIR) Using Dictionary Models. *Moore, B.E., +, TCI 2020 153-166*
- Sample Efficient Fourier Ptychography for Structured Data. *Jagatap, G., +, TCI 2020 344-357*
- Tensor Representation for Three-Dimensional Radar Target Imaging With Sparsely Sampled Data. *Qiu, W., +, TCI 2020 263-275*

## Image segmentation

- Segmentation-Driven Optimization For Iterative Reconstruction in Optical Projection Tomography: An Exploration. *Tang, X., +, TCI 2020 1537-1547*
- VIF-Net: An Unsupervised Framework for Infrared and Visible Image Fusion. *Hou, R., +, TCI 2020 640-651*

## Image sensors

- A Unified Learning-Based Framework for Light Field Reconstruction From Coded Projections. *Vadathya, A.K., +, TCI 2020 304-316*
- Color Filter Arrays for Quanta Image Sensors. *Elgendi, O.A., +, TCI 2020 652-665*
- DAViS Camera Optical Flow. *Almatrafi, M., +, TCI 2020 396-407*
- HDR Imaging With Quanta Image Sensors: Theoretical Limits and Optimal Reconstruction. *Gnanasambandam, A., +, TCI 2020 1571-1585*
- Joint Image and Depth Estimation With Mask-Based Lensless Cameras. *Zheng, Y., +, TCI 2020 1167-1178*
- Microlens Array Grid Estimation, Light Field Decoding, and Calibration. *Schambach, M., +, TCI 2020 591-603*
- Resolution Analysis in a Lens-Free On-Chip Digital Holographic Microscope. *Zhang, J., +, TCI 2020 697-710*

## Image sequences

- DAViS Camera Optical Flow. *Almatrafi, M., +, TCI 2020 396-407*
- Fast Retinomorphic Event-Driven Representations for Video Gameplay and Action Recognition. *Chen, H., +, TCI 2020 276-290*
- Full View Optical Flow Estimation Leveraged From Light Field Superpixel. *Zhu, H., +, TCI 2020 12-23*
- Online Adaptive Image Reconstruction (OnAIR) Using Dictionary Models. *Moore, B.E., +, TCI 2020 153-166*
- Reconstruction of Image Sequences From Ungated and Scanning-Aberrated Laser Scanning Microscopy Images of the Beating Heart. *Mariani, O., +, TCI 2020 383-395*
- Robust Motion Compensation for Event Cameras With Smooth Constraint. *Xu, J., +, TCI 2020 604-614*

## Image texture

- Adaptive Near-Infrared and Visible Fusion for Fast Image Enhancement. *Awad, M., +, TCI 2020 408-418*
- VIF-Net: An Unsupervised Framework for Infrared and Visible Image Fusion. *Hou, R., +, TCI 2020 640-651*

## Imaging

- Application of Subspace-Based Distorted-Born Iteration Method in Imaging Biaxial Anisotropic Scatterer. *Ye, X., +, TCI 2020 1486-1492*
- Blind Binocular Visual Quality Predictor Using Deep Fusion Network. *Zhou, W., +, TCI 2020 883-893*
- Block Coordinate Regularization by Denoising. *Sun, Y., +, TCI 2020 908-921*
- Boosting One-Shot Spectral Super-Resolution Using Transfer Learning. *Wei, W., +, TCI 2020 1459-1470*
- Coded Aperture Optimization in Spatial Spectral Compressive Spectral Imagers. *Salazar, E., +, TCI 2020 764-777*
- Collaborative Deep Learning for Super-Resolving Blurry Text Images. *Quan, Y., +, TCI 2020 778-790*
- Compressive Spectral Imaging Based on Hexagonal Blue Noise Coded Apertures. *Zhang, H., +, TCI 2020 749-763*
- Deep Recursive Network for Hyperspectral Image Super-Resolution. *Wei, W., +, TCI 2020 1233-1244*
- Dynamic Analysis of Spin Satellites Through the Quadratic Phase Estimation in Multiple-Station Radar Images. *Zhou, Y., +, TCI 2020 894-907*
- Expectation-Maximization Based Approach to 3D Reconstruction From Single-Waveform Multispectral Lidar Data. *Legros, Q., +, TCI 2020 1033-1043*
- Fast Joint Multiband Reconstruction From Wideband Images Based on Low-Rank Approximation. *Hadj-Youcef, M.A., +, TCI 2020 922-933*
- Fast Multi-Focus Ultrasound Image Recovery Using Generative Adversarial Networks. *Goudarzi, S., +, TCI 2020 1272-1284*
- Fast Pixelated Lithographic Source and Mask Joint Optimization Based on Compressive Sensing. *Wang, Z., +, TCI 2020 981-992*
- HDR Imaging With Quanta Image Sensors: Theoretical Limits and Optimal Reconstruction. *Gnanasambandam, A., +, TCI 2020 1571-1585*

- Hyperspectral and Multispectral Image Fusion Under Spectrally Varying Spatial Blurs – Application to High Dimensional Infrared Astronomical Imaging. *Guilloteau, C., +, TCI 2020 1362-1374*
- Learning Spatial-Spectral Prior for Super-Resolution of Hyperspectral Imagery. *Jiang, J., +, TCI 2020 1082-1096*
- Microwave Imaging Using Optimization With Variable Number of Dimensions. *Kadlec, P., +, TCI 2020 1586-1594*
- Noise2Inverse: Self-Supervised Deep Convolutional Denoising for Tomography. *Hendriksen, A.A., +, TCI 2020 1320-1335*
- OSRanP: A Novel Way for Radar Imaging Utilizing Joint Sparsity and Low-Rankness. *Pu, W., +, TCI 2020 868-882*
- Pre-migration: A General Extension for Photoacoustic Imaging Reconstruction. *Jin, H., +, TCI 2020 1097-1105*
- Reconstruction of Hyperspectral Data From RGB Images With Prior Category Information. *Yan, L., +, TCI 2020 1070-1081*
- Robust Low-Rank Tensor Ring Completion. *Huang, H., +, TCI 2020 1117-1126*
- Segmentation-Driven Optimization For Iterative Reconstruction in Optical Projection Tomography: An Exploration. *Tang, X., +, TCI 2020 1537-1547*
- Sharp Computational Images From Diffuse Beams: Factorization of the Discrete Delta Function. *Svalbe, I.D., +, TCI 2020 1258-1271*
- Speckle Suppression in Multi-Channel Coherent Imaging: A Tractable Bayesian Approach. *Tucker, D., +, TCI 2020 1429-1439*
- SPRITE: 3-D SParse Radar Imaging TEchnique. *Benoudiba-Campanini, T., +, TCI 2020 1059-1069*
- The Practicality of Stochastic Optimization in Imaging Inverse Problems. *Tang, J., +, TCI 2020 1471-1485*
- Towards Reducing Severe Defocus Spread Effects for Multi-Focus Image Fusion via an Optimization Based Strategy. *Xu, S., +, TCI 2020 1561-1570*
- Unbalanced Optimal Transport Regularization for Imaging Problems. *Lee, J., +, TCI 2020 1219-1232*
- Unsupervised Algorithm for Brain Anomalies Localization in Electromagnetic Imaging. *Brankovic, A., +, TCI 2020 1595-1606*
- Using Low-Rank Tensors for the Recovery of MPI System Matrices. *Grosser, M., +, TCI 2020 1389-1402*
- Indexes**
- Towards Reducing Severe Defocus Spread Effects for Multi-Focus Image Fusion via an Optimization Based Strategy. *Xu, S., +, TCI 2020 1561-1570*
- Infrared detectors**
- Multi-Frame RGB/NIR Imaging for Low-Light Color Image Super-Resolution. *Honda, T., +, TCI 2020 248-262*
- Infrared imaging**
- Multi-Frame RGB/NIR Imaging for Low-Light Color Image Super-Resolution. *Honda, T., +, TCI 2020 248-262*
- VIF-Net: An Unsupervised Framework for Infrared and Visible Image Fusion. *Hou, R., +, TCI 2020 640-651*
- Instruments**
- Fast Joint Multiband Reconstruction From Wideband Images Based on Low-Rank Approximation. *Hadj-Youcef, M.A., +, TCI 2020 922-933*
- Hyperspectral and Multispectral Image Fusion Under Spectrally Varying Spatial Blurs – Application to High Dimensional Infrared Astronomical Imaging. *Guilloteau, C., +, TCI 2020 1362-1374*
- Integral equations**
- Solving Phaseless Highly Nonlinear Inverse Scattering Problems With Contraction Integral Equation for Inversion. *Zhang, L., +, TCI 2020 1106-1116*
- Intensity measurement**
- Synthetic Aperture Imaging With Intensity-Only Data. *Moscoso, M., +, TCI 2020 87-94*
- Interference suppression**
- Through the Wall Scene Reconstruction Using Low Rank and Total Variation. *Tivive, F.H.C., +, TCI 2020 221-234*
- Interpolation**
- Fast Enhanced CT Metal Artifact Reduction Using Data Domain Deep Learning. *Ghani, M.U., +, TCI 2020 181-193*
- Four-Dimensional Anisotropic Diffusion Framework With PDEs for Light Field Regularization and Inverse Problems. *Allain, P., +, TCI 2020 109-124*

**Inverse problems**

- Adaptive Quantile Sparse Image (AQuaSI) Prior for Inverse Imaging Problems. *Schirrmacher, F., +, TCI 2020 503-517*
- Application of Subspace-Based Distorted-Born Iteration Method in Imaging Biaxial Anisotropic Scatterer. *Ye, X., +, TCI 2020 1486-1492*
- Four-Dimensional Anisotropic Diffusion Framework With PDEs for Light Field Regularization and Inverse Problems. *Allain, P., +, TCI 2020 109-124*
- InversionNet: An Efficient and Accurate Data-Driven Full Waveform Inversion. *Wu, Y., +, TCI 2020 419-433*
- Memory-Efficient Learning for Large-Scale Computational Imaging. *Kellman, M., +, TCI 2020 1403-1414*
- Microwave Imaging Using Optimization With Variable Number of Dimensions. *Kadlec, P., +, TCI 2020 1586-1594*
- Neumann Networks for Linear Inverse Problems in Imaging. *Gilton, D., +, TCI 2020 328-343*
- Noise2Inverse: Self-Supervised Deep Convolutional Denoising for Tomography. *Hendriksen, A.A., +, TCI 2020 1320-1335*
- Online Adaptive Image Reconstruction (OnAIR) Using Dictionary Models. *Moore, B.E., +, TCI 2020 153-166*
- Solving Phaseless Highly Nonlinear Inverse Scattering Problems With Contraction Integral Equation for Inversion. *Zhang, L., +, TCI 2020 1106-1116*
- The Practicality of Stochastic Optimization in Imaging Inverse Problems. *Tang, J., +, TCI 2020 1471-1485*
- Three-Dimensional Optical Diffraction Tomography With Lipmann-Schwinger Model. *Pham, T., +, TCI 2020 727-738*
- Iterative methods**
- Deep Generative Endmember Modeling: An Application to Unsupervised Spectral Unmixing. *Borsoi, R.A., +, TCI 2020 374-384*
- Efficient and Interpretable Deep Blind Image Deblurring Via Algorithm Unrolling. *Li, Y., +, TCI 2020 666-681*
- IFR-Net: Iterative Feature Refinement Network for Compressed Sensing MRI. *Liu, Y., +, TCI 2020 434-446*
- Microwave Breast Imaging Using a Dry Setup. *Felicio, J.M., +, TCI 2020 167-180*
- SISTER: Spectral-Image Similarity-Based Tensor With Enhanced-Sparsity Reconstruction for Sparse-View Multi-Energy CT. *Hu, D., +, TCI 2020 477-490*

**K****Kernel**

- Blind Image Deconvolution Using Deep Generative Priors. *Asim, M., +, TCI 2020 1493-1506*
- Collaborative Deep Learning for Super-Resolving Blurry Text Images. *Quan, Y., +, TCI 2020 778-790*
- CycleGAN With a Blur Kernel for Deconvolution Microscopy: Optimal Transport Geometry. *Lim, S., +, TCI 2020 1127-1138*

**L****Laser applications in medicine**

- Reconstruction of Image Sequences From Ungated and Scanning-Aberrated Laser Scanning Microscopy Images of the Beating Heart. *Mariani, O., +, TCI 2020 385-395*

**Laser radar**

- Expectation-Maximization Based Approach to 3D Reconstruction From Single-Waveform Multispectral Lidar Data. *Legros, Q., +, TCI 2020 1033-1043*
- S2DNet: Depth Estimation From Single Image and Sparse Samples. *Hambarde, P., +, TCI 2020 806-817*

**Learning (artificial intelligence)**

- A Unified Learning-Based Framework for Light Field Reconstruction From Coded Projections. *Vadathya, A.K., +, TCI 2020 304-316*
- CNF+CT: Context Network Fusion of Cascade-Trained Convolutional Neural Networks for Image Super-Resolution. *Ren, H., +, TCI 2020 447-462*
- Deep Generative Endmember Modeling: An Application to Unsupervised Spectral Unmixing. *Borsoi, R.A., +, TCI 2020 374-384*

- Efficient and Interpretable Deep Blind Image Deblurring Via Algorithm Unrolling. *Li, Y., +, TCI 2020 666-681*
- Embedding Deep Learning in Inverse Scattering Problems. *Sanghvi, Y., +, TCI 2020 46-56*
- Fast Enhanced CT Metal Artifact Reduction Using Data Domain Deep Learning. *Ghani, M.U., +, TCI 2020 181-193*
- Fast Retinomorphic Event-Driven Representations for Video Gameplay and Action Recognition. *Chen, H., +, TCI 2020 276-290*
- IFR-Net: Iterative Feature Refinement Network for Compressed Sensing MRI. *Liu, Y., +, TCI 2020 434-446*
- InversionNet: An Efficient and Accurate Data-Driven Full Waveform Inversion. *Wu, Y., +, TCI 2020 419-433*
- MRI Super-Resolution With Ensemble Learning and Complementary Priors. *Lyu, Q., +, TCI 2020 615-624*
- Multimodal Image Super-Resolution via Joint Sparse Representations Induced by Coupled Dictionaries. *Song, P., +, TCI 2020 57-72*
- Neumann Networks for Linear Inverse Problems in Imaging. *Gilton, D., +, TCI 2020 328-343*
- Online Adaptive Image Reconstruction (OnAIR) Using Dictionary Models. *Moore, B.E., +, TCI 2020 153-166*
- Zero-Shot Depth Estimation From Light Field Using A Convolutional Neural Network. *Peng, J., +, TCI 2020 682-696*
- Least squares approximations**
- A Convex Formulation for Binary Tomography. *Kadu, A., +, TCI 2020 1-11*
- Deep Generative Endmember Modeling: An Application to Unsupervised Spectral Unmixing. *Borsoi, R.A., +, TCI 2020 374-384*
- Gauss–Newton Optimization for Phase Recovery From the Bispectrum. *Herring, J.L., +, TCI 2020 235-247*
- Lenses**
- 3D Localization for Light-Field Microscopy via Convolutional Sparse Coding on Epipolar Images. *Song, P., +, TCI 2020 1017-1032*
- Light coherence**
- Inverse Scattering via Transmission Matrices: Broadband Illumination and Fast Phase Retrieval Algorithms. *Sharma, M.K., +, TCI 2020 95-108*
- Resolution Analysis in a Lens-Free On-Chip Digital Holographic Microscope. *Zhang, J., +, TCI 2020 697-710*
- Light diffraction**
- Computational Oblique Illumination Microscopy With Isotropic High Resolution. *Ma, X., +, TCI 2020 317-327*
- Three-Dimensional Optical Diffraction Tomography With Lipmann-Schwinger Model. *Pham, T., +, TCI 2020 727-738*
- Light emitting diodes**
- Computational Oblique Illumination Microscopy With Isotropic High Resolution. *Ma, X., +, TCI 2020 317-327*
- Light fields**
- Multi-Angular Epipolar Geometry Based Light Field Angular Reconstruction Network. *Liu, D., +, TCI 2020 1507-1522*
- Lighting**
- Fast Pixelated Lithographic Source and Mask Joint Optimization Based on Compressive Sensing. *Wang, Z., +, TCI 2020 981-992*
- Lithography**
- Fast Pixelated Lithographic Source and Mask Joint Optimization Based on Compressive Sensing. *Wang, Z., +, TCI 2020 981-992*
- M**
- Machine learning**
- Blind Binocular Visual Quality Predictor Using Deep Fusion Network. *Zhou, W., +, TCI 2020 883-893*
- Deep Recursive Network for Hyperspectral Image Super-Resolution. *Wei, W., +, TCI 2020 1233-1244*
- Deep-Learning-Based Optimization of the Under-Sampling Pattern in MRI. *Bahadir, C.D., +, TCI 2020 1139-1152*
- Learned Full-Sampling Reconstruction From Incomplete Data. *Cheng, W., +, TCI 2020 945-957*
- Soft Autoencoder and Its Wavelet Adaptation Interpretation. *Fan, F., +, TCI 2020 1245-1257*
- The Practicality of Stochastic Optimization in Imaging Inverse Problems. *Tang, J., +, TCI 2020 1471-1485*
- Magnetic heads**
- Unsupervised Algorithm for Brain Anomalies Localization in Electromagnetic Imaging. *Brankovic, A., +, TCI 2020 1595-1606*
- Magnetic resonance imaging**
- Automated Regularization Parameter Selection Using Continuation Based Proximal Method for Compressed Sensing MRI. *Mathew, R.S., +, TCI 2020 1309-1319*
- Deep-Learning-Based Optimization of the Under-Sampling Pattern in MRI. *Bahadir, C.D., +, TCI 2020 1139-1152*
- Efficient Regularized Field Map Estimation in 3D MRI. *Lin, C.Y., +, TCI 2020 1451-1458*
- Memory-Efficient Learning for Large-Scale Computational Imaging. *Kellman, M., +, TCI 2020 1403-1414*
- Unpaired Deep Learning for Accelerated MRI Using Optimal Transport Driven CycleGAN. *Oh, G., +, TCI 2020 1285-1296*
- Manganese**
- Application of Subspace-Based Distorted-Born Iteration Method in Imaging Biaxial Anisotropic Scatterer. *Ye, X., +, TCI 2020 1486-1492*
- Masks**
- Coding Mask Design for Single Sensor Ultrasound Imaging. *van der Meulen, P., +, TCI 2020 358-373*
- Mathematical model**
- Pre-migration: A General Extension for Photoacoustic Imaging Reconstruction. *Jin, H., +, TCI 2020 1097-1105*
- Solving Phaseless Highly Nonlinear Inverse Scattering Problems With Contraction Integral Equation for Inversion. *Zhang, L., +, TCI 2020 1106-1116*
- Matrix algebra**
- Exact Multistatic Interferometric Imaging via Generalized Wirtinger Flow. *Yonel, B., +, TCI 2020 711-726*
- Inverse Scattering via Transmission Matrices: Broadband Illumination and Fast Phase Retrieval Algorithms. *Sharma, M.K., +, TCI 2020 95-108*
- Matrix decomposition**
- Using Low-Rank Tensors for the Recovery of MPI System Matrices. *Grosser, M., +, TCI 2020 1389-1402*
- Maximum likelihood estimation**
- Generalized Phase Gradient Autofocus Using Semidefinite Relaxation Phase Estimation. *Evers, A., +, TCI 2020 291-303*
- Mean square error methods**
- Coding Mask Design for Single Sensor Ultrasound Imaging. *van der Meulen, P., +, TCI 2020 358-373*
- Photon Allocation Strategy in Region-of-Interest Tomographic Imaging. *Zhu, Z., +, TCI 2020 125-137*
- Measurement**
- Image Reconstruction of Static and Dynamic Scenes Through Anisoplanatic Turbulence. *Mao, Z., +, TCI 2020 1415-1428*
- Towards Reducing Severe Defocus Spread Effects for Multi-Focus Image Fusion via an Optimization Based Strategy. *Xu, S., +, TCI 2020 1561-1570*
- Unbalanced Optimal Transport Regularization for Imaging Problems. *Lee, J., +, TCI 2020 1219-1232*
- Media**
- Pre-migration: A General Extension for Photoacoustic Imaging Reconstruction. *Jin, H., +, TCI 2020 1097-1105*
- Medical image processing**
- A Convex Formulation for Binary Tomography. *Kadu, A., +, TCI 2020 1-11*
- Coded Aperture Optimization in X-Ray Tomography via Sparse Principal Component Analysis. *Mao, T., +, TCI 2020 73-86*
- Coding Mask Design for Single Sensor Ultrasound Imaging. *van der Meulen, P., +, TCI 2020 358-373*
- Computational Oblique Illumination Microscopy With Isotropic High Resolution. *Ma, X., +, TCI 2020 317-327*
- Fast Enhanced CT Metal Artifact Reduction Using Data Domain Deep Learning. *Ghani, M.U., +, TCI 2020 181-193*
- Fast Retinomorphic Event-Driven Representations for Video Gameplay and Action Recognition. *Chen, H., +, TCI 2020 276-290*
- Frequency Domain Based Virtual Detector for Heterogeneous Media in Photoacoustic Imaging. *Jin, H., +, TCI 2020 569-578*

IFR-Net: Iterative Feature Refinement Network for Compressed Sensing MRI. *Liu, Y., +, TCI 2020 434-446*  
 Low-Rank Tensor Models for Improved Multidimensional MRI: Application to Dynamic Cardiac  $T_1$  Mapping. *Yaman, B., +, TCI 2020 194-207*  
 Microwave Breast Imaging Using a Dry Setup. *Felicio, J.M., +, TCI 2020 167-180*

MRI Super-Resolution With Ensemble Learning and Complementary Priors. *Lyu, Q., +, TCI 2020 615-624*

Online Adaptive Image Reconstruction (OnAIR) Using Dictionary Models. *Moore, B.E., +, TCI 2020 153-166*

Photon Allocation Strategy in Region-of-Interest Tomographic Imaging. *Zhu, Z., +, TCI 2020 125-137*

PI-Line Difference for Alignment and Motion-Correction of Cone-Beam Helical-Trajectory Micro-Tomography Data. *Delgado-Friedrichs, O., +, TCI 2020 24-33*

Reconstruction of Image Sequences From Ungated and Scanning-Aberrated Laser Scanning Microscopy Images of the Beating Heart. *Mariani, O., +, TCI 2020 385-395*

SISTER: Spectral-Image Similarity-Based Tensor With Enhanced-Sparsity Reconstruction for Sparse-View Multi-Energy CT. *Hu, D., +, TCI 2020 477-490*

Super-Resolution PET Imaging Using Convolutional Neural Networks. *Song, T., +, TCI 2020 518-528*

Truncation Correction for X-ray Phase-Contrast Region-of-Interest Tomography. *Felsner, L., +, TCI 2020 625-639*

WARF: A Weighted-Sum Approach to Radial MRI Image Reconstruction With a Rotating RF Coil. *Phair, A., +, TCI 2020 558-568*

## Memory management

Memory-Efficient Learning for Large-Scale Computational Imaging. *Kellman, M., +, TCI 2020 1403-1414*

## Micro-optomechanical devices

Design and Calibration of a Fast Flying-Dot Projector for Dynamic Light Transport Acquisition. *Henderson, K., +, TCI 2020 529-543*

## Microlenses

Microlens Array Grid Estimation, Light Field Decoding, and Calibration. *Schambach, M., +, TCI 2020 591-603*

## Micromirrors

Design and Calibration of a Fast Flying-Dot Projector for Dynamic Light Transport Acquisition. *Henderson, K., +, TCI 2020 529-543*

## Microoptics

3D Localization for Light-Field Microscopy via Convolutional Sparse Coding on Epipolar Images. *Song, P., +, TCI 2020 1017-1032*

## Microscopy

3D Localization for Light-Field Microscopy via Convolutional Sparse Coding on Epipolar Images. *Song, P., +, TCI 2020 1017-1032*

Autoregressive Model-Based Reconstruction of Quantitative Acoustic Maps From RF Signals Sampled at Innovation Rate. *Kim, J., +, TCI 2020 993-1006*

CycleGAN With a Blur Kernel for Deconvolution Microscopy: Optimal Transport Geometry. *Lim, S., +, TCI 2020 1127-1138*

## Microwave imaging

Estimation of Moisture Content Distribution in Porous Foam Using Microwave Tomography With Neural Networks. *Lahivaara, T., +, TCI 2020 1351-1361*

Improved Tumor Detection via Quantitative Microwave Breast Imaging Using Eigenfunction-Based Prior. *Abdollahi, N., +, TCI 2020 1194-1202*

Microwave Breast Imaging Using a Dry Setup. *Felicio, J.M., +, TCI 2020 167-180*

Microwave Imaging Using Optimization With Variable Number of Dimensions. *Kadlec, P., +, TCI 2020 1586-1594*

## Microwave measurement

Estimation of Moisture Content Distribution in Porous Foam Using Microwave Tomography With Neural Networks. *Lahivaara, T., +, TCI 2020 1351-1361*

## Microwave theory and techniques

Estimation of Moisture Content Distribution in Porous Foam Using Microwave Tomography With Neural Networks. *Lahivaara, T., +, TCI 2020 1351-1361*

Improved Tumor Detection via Quantitative Microwave Breast Imaging Using Eigenfunction-Based Prior. *Abdollahi, N., +, TCI 2020 1194-1202*  
 Microwave Imaging Using Optimization With Variable Number of Dimensions. *Kadlec, P., +, TCI 2020 1586-1594*

## Minimax techniques

Embedding Deep Learning in Inverse Scattering Problems. *Sanghvi, Y., +, TCI 2020 46-56*

## Minimization

Automated Regularization Parameter Selection Using Continuation Based Proximal Method for Compressed Sensing MRI. *Mathew, R.S., +, TCI 2020 1309-1319*

Gauss–Newton Optimization for Phase Recovery From the Bispectrum. *Herring, J.L., +, TCI 2020 235-247*

OSRanP: A Novel Way for Radar Imaging Utilizing Joint Sparsity and Low-Rankness. *Pu, W., +, TCI 2020 868-882*

Robust Restoration of Sparse Multidimensional Single-Photon LiDAR Images. *Halimi, A., +, TCI 2020 138-152*

## Mirrors

Design and Calibration of a Fast Flying-Dot Projector for Dynamic Light Transport Acquisition. *Henderson, K., +, TCI 2020 529-543*

## Moisture measurement

Estimation of Moisture Content Distribution in Porous Foam Using Microwave Tomography With Neural Networks. *Lahivaara, T., +, TCI 2020 1351-1361*

## Motion compensation

Robust Motion Compensation for Event Cameras With Smooth Constraint. *Xu, J., +, TCI 2020 604-614*

## Motion estimation

DAViS Camera Optical Flow. *Almatrafi, M., +, TCI 2020 396-407*

## Multiplexing

A Unified Learning-Based Framework for Light Field Reconstruction From Coded Projections. *Vadathya, A.K., +, TCI 2020 304-316*

# N

## Neural network architecture

Embedding Deep Learning in Inverse Scattering Problems. *Sanghvi, Y., +, TCI 2020 46-56*

## Neural networks

Blind Image Deconvolution Using Deep Generative Priors. *Asim, M., +, TCI 2020 1493-1506*

Deep Recursive Network for Hyperspectral Image Super-Resolution. *Wei, W., +, TCI 2020 1233-1244*

Efficient and Interpretable Deep Blind Image Deblurring Via Algorithm Unrolling. *Li, Y., +, TCI 2020 666-681*

IFR-Net: Iterative Feature Refinement Network for Compressed Sensing MRI. *Liu, Y., +, TCI 2020 434-446*

InversionNet: An Efficient and Accurate Data-Driven Full Waveform Inversion. *Wu, Y., +, TCI 2020 419-433*

Learned Full-Sampling Reconstruction From Incomplete Data. *Cheng, W., +, TCI 2020 945-957*

## Neurophysiology

Super-Resolution PET Imaging Using Convolutional Neural Networks. *Song, T., +, TCI 2020 518-528*

## Newton method

Gauss–Newton Optimization for Phase Recovery From the Bispectrum. *Herring, J.L., +, TCI 2020 235-247*

## Noise measurement

Noise2Inverse: Self-Supervised Deep Convolutional Denoising for Tomography. *Hendriksen, A.A., +, TCI 2020 1320-1335*

## Noise reduction

Block Coordinate Regularization by Denoising. *Sun, Y., +, TCI 2020 908-921*

Noise2Inverse: Self-Supervised Deep Convolutional Denoising for Tomography. *Hendriksen, A.A., +, TCI 2020 1320-1335*

Soft Autoencoder and Its Wavelet Adaptation Interpretation. *Fan, F., +, TCI 2020 1245-1257*

**Nonhomogeneous media**

Efficient Regularized Field Map Estimation in 3D MRI. *Lin, C.Y., +, TCI 2020 1451-1458*

**Numerical models**

Robust Low-Rank Tensor Ring Completion. *Huang, H., +, TCI 2020 1117-1126*

**O****Object detection**

Computational Implementation and Asymptotic Statistical Performance Analysis of Range Frequency Autocorrelation Function for Radar High-Speed Target Detection. *Li, Y., +, TCI 2020 1297-1308*

**Optical arrays**

Microlens Array Grid Estimation, Light Field Decoding, and Calibration. *Schambach, M., +, TCI 2020 591-603*

**Optical computing**

Scene Flow Estimation From Sparse Light Fields Using a Local 4D Affine Model. *David, P., +, TCI 2020 791-805*

**Optical crosstalk**

Color Filter Arrays for Quanta Image Sensors. *Elgendi, O.A., +, TCI 2020 652-665*

**Optical design techniques**

Design and Calibration of a Fast Flying-Dot Projector for Dynamic Light Transport Acquisition. *Henderson, K., +, TCI 2020 529-543*

Resolution Analysis in a Lens-Free On-Chip Digital Holographic Microscope. *Zhang, J., +, TCI 2020 697-710*

**Optical diffraction**

Fast Target Detection via Template Matching in Compressive Phase Retrieval. *Jerez, A., +, TCI 2020 934-944*

**Optical distortion**

Building Stereoscopic Zoomer via Global and Local Warping Optimization. *Shao, F., +, TCI 2020 1622-1635*

Image Reconstruction of Static and Dynamic Scenes Through Anisoplanatic Turbulence. *Mao, Z., +, TCI 2020 1415-1428*

**Optical images**

Microlens Array Grid Estimation, Light Field Decoding, and Calibration. *Schambach, M., +, TCI 2020 591-603*

Photon Allocation Strategy in Region-of-Interest Tomographic Imaging. *Zhu, Z., +, TCI 2020 125-137*

**Optical imaging**

Building Stereoscopic Zoomer via Global and Local Warping Optimization. *Shao, F., +, TCI 2020 1622-1635*

Fast Target Detection via Template Matching in Compressive Phase Retrieval. *Jerez, A., +, TCI 2020 934-944*

Image Reconstruction of Static and Dynamic Scenes Through Anisoplanatic Turbulence. *Mao, Z., +, TCI 2020 1415-1428*

Scene Flow Estimation From Sparse Light Fields Using a Local 4D Affine Model. *David, P., +, TCI 2020 791-805*

**Optical microscopy**

Computational Oblique Illumination Microscopy With Isotropic High Resolution. *Ma, X., +, TCI 2020 317-327*

Frequency Domain Based Virtual Detector for Heterogeneous Media in Photoacoustic Imaging. *Jin, H., +, TCI 2020 569-578*

Reconstruction of Image Sequences From Ungated and Scanning-Aberrated Laser Scanning Microscopy Images of the Beating Heart. *Mariani, O., +, TCI 2020 385-395*

Resolution Analysis in a Lens-Free On-Chip Digital Holographic Microscope. *Zhang, J., +, TCI 2020 697-710*

**Optical projectors**

Design and Calibration of a Fast Flying-Dot Projector for Dynamic Light Transport Acquisition. *Henderson, K., +, TCI 2020 529-543*

**Optical radar**

Bayesian 3D Reconstruction of Subsampled Multispectral Single-Photon Lidar Signals. *Tachella, J., +, TCI 2020 208-220*

Robust Restoration of Sparse Multidimensional Single-Photon LiDAR Images. *Halimi, A., +, TCI 2020 138-152*

**Optical sensors**

Fast Target Detection via Template Matching in Compressive Phase Retrieval. *Jerez, A., +, TCI 2020 934-944*

**Optical testing**

Microlens Array Grid Estimation, Light Field Decoding, and Calibration. *Schambach, M., +, TCI 2020 591-603*

**Optical tomography**

Three-Dimensional Optical Diffraction Tomography With Lipmann-Schwinger Model. *Pham, T., +, TCI 2020 727-738*

**Optical variables measurement**

Fast Target Detection via Template Matching in Compressive Phase Retrieval. *Jerez, A., +, TCI 2020 934-944*

**Optimization**

360 Panorama Synthesis from a Sparse Set of Images on a Low-Power Device. *Sumantri, J.S., +, TCI 2020 1179-1193*

Adaptive Quantile Sparse Image (AQuaSI) Prior for Inverse Imaging Problems. *Schirrmacher, F., +, TCI 2020 503-517*

Automated Regularization Parameter Selection Using Continuation Based Proximal Method for Compressed Sensing MRI. *Mathew, R.S., +, TCI 2020 1309-1319*

Block Coordinate Regularization by Denoising. *Sun, Y., +, TCI 2020 908-921*

Building Stereoscopic Zoomer via Global and Local Warping Optimization. *Shao, F., +, TCI 2020 1622-1635*

Coded Aperture Optimization in Spatial Spectral Compressive Spectral Imagers. *Salazar, E., +, TCI 2020 764-777*

Color Filter Arrays for Quanta Image Sensors. *Elgendi, O.A., +, TCI 2020 652-665*

Compressive Holography From Poisson Noise Plagued Holograms Using Expectation-Maximization. *Kumar, S., +, TCI 2020 857-867*

Deep Recursive Network for Hyperspectral Image Super-Resolution. *Wei, W., +, TCI 2020 1233-1244*

Deep-Learning-Based Optimization of the Under-Sampling Pattern in MRI. *Bahadir, C.D., +, TCI 2020 1139-1152*

Fast Pixelated Lithographic Source and Mask Joint Optimization Based on Compressive Sensing. *Wang, Z., +, TCI 2020 981-992*

Full View Optical Flow Estimation Leveraged From Light Field Superpixel. *Zhu, H., +, TCI 2020 12-23*

Gauss–Newton Optimization for Phase Recovery From the Bispectrum. *Herring, J.L., +, TCI 2020 235-247*

Generalized Phase Gradient Autofocus Using Semidefinite Relaxation Phase Estimation. *Evers, A., +, TCI 2020 291-303*

Microwave Imaging Using Optimization With Variable Number of Dimensions. *Kadlec, P., +, TCI 2020 1586-1594*

Robust Low-Rank Tensor Ring Completion. *Huang, H., +, TCI 2020 1117-1126*

Segmentation-Driven Optimization For Iterative Reconstruction in Optical Projection Tomography: An Exploration. *Tang, X., +, TCI 2020 1537-1547*

**Unbalanced Optimal Transport Regularization for Imaging Problems.**

*Lee, J., +, TCI 2020 1219-1232*

**Optimized production technology**

Segmentation-Driven Optimization For Iterative Reconstruction in Optical Projection Tomography: An Exploration. *Tang, X., +, TCI 2020 1537-1547*

**P****Parameter estimation**

Computational Efficient Refocusing and Estimation Method for Radar Moving Target With Unknown Time Information. *Li, X., +, TCI 2020 544-557*

**Partial differential equations**

Four-Dimensional Anisotropic Diffusion Framework With PDEs for Light Field Regularization and Inverse Problems. *Allain, P., +, TCI 2020 109-124*

**Particle measurements**

Using Low-Rank Tensors for the Recovery of MPI System Matrices. *Grosser, M., +, TCI 2020 1389-1402*

**Permittivity**

Application of Subspace-Based Distorted-Born Iteration Method in Imaging Biaxial Anisotropic Scatterer. *Ye, X., +, TCI 2020 1486-1492*

Improved Tumor Detection via Quantitative Microwave Breast Imaging Using Eigenfunction-Based Prior. *Abdollahi, N., +, TCI 2020 1194-1202*

**Phantoms**

A Convex Formulation for Binary Tomography. *Kadu, A., +, TCI 2020 I-11*  
Microwave Breast Imaging Using a Dry Setup. *Felicio, J.M., +, TCI 2020 167-180*

Super-Resolution PET Imaging Using Convolutional Neural Networks. *Song, T., +, TCI 2020 518-528*

**Phase distortion**

Image Reconstruction of Static and Dynamic Scenes Through Anisoplanatic Turbulence. *Mao, Z., +, TCI 2020 1415-1428*

**Phase estimation**

Generalized Phase Gradient Autofocus Using Semidefinite Relaxation Phase Estimation. *Evers, A., +, TCI 2020 291-303*

**Phase measurement**

Coherent Plug-and-Play: Digital Holographic Imaging Through Atmospheric Turbulence Using Model-Based Iterative Reconstruction and Convolutional Neural Networks. *Pellizzari, C.J., +, TCI 2020 1607-1621*

High-Speed Phase-Shifting 3D Profilometry on Human Face Assisted by Statistical Model. *Yu, Y., +, TCI 2020 1007-1016*

Solving Phaseless Highly Nonlinear Inverse Scattering Problems With Convolutional Neural Networks. *Zhang, L., +, TCI 2020 1106-1116*

**Photodetectors**

Microlens Array Grid Estimation, Light Field Decoding, and Calibration. *Schambach, M., +, TCI 2020 591-603*

**Photon counting**

Photon Allocation Strategy in Region-of-Interest Tomographic Imaging. *Zhu, Z., +, TCI 2020 125-137*

**Photonics**

Analytic Inversion of a Radon Transform on Double Circular Arcs With Applications in Compton Scattering Tomography. *Tarpau, C., +, TCI 2020 958-967*

Expectation-Maximization Based Approach to 3D Reconstruction From Single-Waveform Multispectral Lidar Data. *Legros, Q., +, TCI 2020 1033-1043*

**Physics**

Coherent Plug-and-Play: Digital Holographic Imaging Through Atmospheric Turbulence Using Model-Based Iterative Reconstruction and Convolutional Neural Networks. *Pellizzari, C.J., +, TCI 2020 1607-1621*

**Position measurement**

Dynamic Image Sampling Using a Novel Variance Based Probability Mass Function. *Grosche, S., +, TCI 2020 1440-1450*

**Positron emission tomography**

Super-Resolution PET Imaging Using Convolutional Neural Networks. *Song, T., +, TCI 2020 518-528*

**Predictive models**

Blind Binocular Visual Quality Predictor Using Deep Fusion Network. *Zhou, W., +, TCI 2020 883-893*

**Principal component analysis**

Coded Aperture Optimization in X-Ray Tomography via Sparse Principal Component Analysis. *Mao, T., +, TCI 2020 73-86*

Low Rank Plus Sparse Decomposition of Synthetic Aperture Radar Data for Target Imaging. *Leibovich, M., +, TCI 2020 491-502*

Robust Low-Rank Tensor Ring Completion. *Huang, H., +, TCI 2020 1117-1126*

**Probes**

Sharp Computational Images From Diffuse Beams: Factorization of the Discrete Delta Function. *Svalbe, I.D., +, TCI 2020 1258-1271*

**Q****Quadrature amplitude modulation**

Autoregressive Model-Based Reconstruction of Quantitative Acoustic Maps From RF Signals Sampled at Innovation Rate. *Kim, J., +, TCI 2020 993-1006*

**R****Radar clutter**

Through the Wall Scene Reconstruction Using Low Rank and Total Variation. *Tivive, F.H.C., +, TCI 2020 221-234*

**Radar computing**

Generalized Phase Gradient Autofocus Using Semidefinite Relaxation Phase Estimation. *Evers, A., +, TCI 2020 291-303*

Tensor Representation for Three-Dimensional Radar Target Imaging With Sparsely Sampled Data. *Qiu, W., +, TCI 2020 263-275*

**Radar cross-sections**

Computational Efficient Refocusing and Estimation Method for Radar Moving Target With Unknown Time Information. *Li, X., +, TCI 2020 544-557*

**Radar imaging**

A Time-Domain Multigrid Solver With Higher-Order Born Approximation for Full-Wave Radar Tomography of a Complex-Shaped Target. *Sorsa, L., +, TCI 2020 579-590*

Dynamic Analysis of Spin Satellites Through the Quadratic Phase Estimation in Multiple-Station Radar Images. *Zhou, Y., +, TCI 2020 894-907*

Exact Multistatic Interferometric Imaging via Generalized Wirtinger Flow. *Yonet, B., +, TCI 2020 711-726*

Generalized Phase Gradient Autofocus Using Semidefinite Relaxation Phase Estimation. *Evers, A., +, TCI 2020 291-303*

Low Rank Plus Sparse Decomposition of Synthetic Aperture Radar Data for Target Imaging. *Leibovich, M., +, TCI 2020 491-502*

Microwave Breast Imaging Using a Dry Setup. *Felicio, J.M., +, TCI 2020 167-180*

OSRanP: A Novel Way for Radar Imaging Utilizing Joint Sparsity and Low-Rankness. *Pu, W., +, TCI 2020 868-882*

Speckle Suppression in Multi-Channel Coherent Imaging: A Tractable Bayesian Approach. *Tucker, D., +, TCI 2020 1429-1439*

SPRITE: 3-D SParse Radar Imaging TEchnique. *Benoudiba-Campanini, T., +, TCI 2020 1059-1069*

Synthetic Aperture Imaging With Intensity-Only Data. *Moscoso, M., +, TCI 2020 87-94*

Tensor Representation for Three-Dimensional Radar Target Imaging With Sparsely Sampled Data. *Qiu, W., +, TCI 2020 263-275*

Through the Wall Scene Reconstruction Using Low Rank and Total Variation. *Tivive, F.H.C., +, TCI 2020 221-234*

Unsupervised Algorithm for Brain Anomalies Localization in Electromagnetic Imaging. *Brankovic, A., +, TCI 2020 1595-1606*

**Radar polarimetry**

OSRanP: A Novel Way for Radar Imaging Utilizing Joint Sparsity and Low-Rankness. *Pu, W., +, TCI 2020 868-882*

Speckle Suppression in Multi-Channel Coherent Imaging: A Tractable Bayesian Approach. *Tucker, D., +, TCI 2020 1429-1439*

**Radar signal processing**

Bayesian 3D Reconstruction of Subsampled Multispectral Single-Photon Lidar Signals. *Tachella, J., +, TCI 2020 208-220*

**Radio frequency**

Autoregressive Model-Based Reconstruction of Quantitative Acoustic Maps From RF Signals Sampled at Innovation Rate. *Kim, J., +, TCI 2020 993-1006*

**Radon**

Analytic Inversion of a Radon Transform on Double Circular Arcs With Applications in Compton Scattering Tomography. *Tarpau, C., +, TCI 2020 958-967*

**Ray tracing**

Microlens Array Grid Estimation, Light Field Decoding, and Calibration. *Schambach, M., +, TCI 2020 591-603*

**Reflection**

High-Contrast Reflection Tomography With Total-Variation Constraints. *Kadu, A., +, TCI 2020 1523-1536*

**Reflective binary codes**

High-Speed Phase-Shifting 3D Profilometry on Human Face Assisted by Statistical Model. *Yu, Y., +, TCI 2020 1007-1016*

**Refractive index**

Truncation Correction for X-ray Phase-Contrast Region-of-Interest Tomography. *Felsner, L., +, TCI 2020 625-639*

**Regression analysis**

Multimodal Image Super-Resolution via Joint Sparse Representations Induced by Coupled Dictionaries. *Song, P., +, TCI 2020 57-72*

**Reliability**

DAViS Camera Optical Flow. *Almatrafi, M., +, TCI 2020 396-407*

**Remote sensing by radar**

Exact Multistatic Interferometric Imaging via Generalized Wirtinger Flow. *Yonet, B., +, TCI 2020 711-726*

**Rendering (computer graphics)**

Building Stereoscopic Zoomer via Global and Local Warping Optimization. *Shao, F., +, TCI 2020 1622-1635*

**Resists**

Fast Pixelated Lithographic Source and Mask Joint Optimization Based on Compressive Sensing. *Wang, Z., +, TCI 2020 981-992*

**Retinal recognition**

Fast Retinomorphic Event-Driven Representations for Video Gameplay and Action Recognition. *Chen, H., +, TCI 2020 276-290*

**RF signals**

Autoregressive Model-Based Reconstruction of Quantitative Acoustic Maps From RF Signals Sampled at Innovation Rate. *Kim, J., +, TCI 2020 993-1006*

**S****Satellites**

Dynamic Analysis of Spin Satellites Through the Quadratic Phase Estimation in Multiple-Station Radar Images. *Zhou, Y., +, TCI 2020 894-907*

**Scanning electron microscopy**

Dynamic Image Sampling Using a Novel Variance Based Probability Mass Function. *Grosche, S., +, TCI 2020 1440-1450*

**Scattering**

Analytic Inversion of a Radon Transform on Double Circular Arcs With Applications in Compton Scattering Tomography. *Tarpau, C., +, TCI 2020 958-967*

High-Contrast Reflection Tomography With Total-Variation Constraints. *Kadu, A., +, TCI 2020 1523-1536*

SPRITE: 3-D SParse Radar Imaging TEchnique. *Benoudiba-Campanini, T., +, TCI 2020 1059-1069*

**Seismic waves**

InversionNet: An Efficient and Accurate Data-Driven Full Waveform Inversion. *Wu, Y., +, TCI 2020 419-433*

**Seismology**

InversionNet: An Efficient and Accurate Data-Driven Full Waveform Inversion. *Wu, Y., +, TCI 2020 419-433*

**Sensor arrays**

Color Filter Arrays for Quanta Image Sensors. *Elgendi, O.A., +, TCI 2020 652-665*

Joint Image and Depth Estimation With Mask-Based Lensless Cameras. *Zheng, Y., +, TCI 2020 1167-1178*

**Sensors**

HDR Imaging With Quanta Image Sensors: Theoretical Limits and Optimal Reconstruction. *Gnanasambandam, A., +, TCI 2020 1571-1585*

Joint Learning of Measurement Matrix and Signal Reconstruction via Deep Learning. *Mdrafi, R., +, TCI 2020 818-829*

**Shape**

A Point Constrained Boundary Reconstruction Framework for Ultrasound Guided Electrical Impedance Tomography. *Ren, S., +, TCI 2020 1336-1350*

Microwave Imaging Using Optimization With Variable Number of Dimensions. *Kadlec, P., +, TCI 2020 1586-1594*

**Signal processing algorithms**

Computational Implementation and Asymptotic Statistical Performance Analysis of Range Frequency Autocorrelation Function for Radar High-Speed Target Detection. *Li, Y., +, TCI 2020 1297-1308*

**Signal reconstruction**

Bayesian 3D Reconstruction of Subsampled Multispectral Single-Photon Lidar Signals. *Tachella, J., +, TCI 2020 208-220*

Joint Learning of Measurement Matrix and Signal Reconstruction via Deep Learning. *Mdrafi, R., +, TCI 2020 818-829*

**Signal resolution**

Embedding Deep Learning in Inverse Scattering Problems. *Sanghvi, Y., +, TCI 2020 46-56*

**Signal sampling**

Bayesian 3D Reconstruction of Subsampled Multispectral Single-Photon Lidar Signals. *Tachella, J., +, TCI 2020 208-220*

**Signal to noise ratio**

Computational Implementation and Asymptotic Statistical Performance Analysis of Range Frequency Autocorrelation Function for Radar High-Speed Target Detection. *Li, Y., +, TCI 2020 1297-1308*

HDR Imaging With Quanta Image Sensors: Theoretical Limits and Optimal Reconstruction. *Gnanasambandam, A., +, TCI 2020 1571-1585*

**Simultaneous localization and mapping**

S2DNet: Depth Estimation From Single Image and Sparse Samples. *Hambarde, P., +, TCI 2020 806-817*

**Single-photon avalanche diodes**

HDR Imaging With Quanta Image Sensors: Theoretical Limits and Optimal Reconstruction. *Gnanasambandam, A., +, TCI 2020 1571-1585*

**Singular value decomposition**

Microwave Breast Imaging Using a Dry Setup. *Felicio, J.M., +, TCI 2020 167-180*

**Skin**

Microwave Breast Imaging Using a Dry Setup. *Felicio, J.M., +, TCI 2020 167-180*

**Solid modeling**

High-Speed Phase-Shifting 3D Profilometry on Human Face Assisted by Statistical Model. *Yu, Y., +, TCI 2020 1007-1016*

Scene Flow Estimation From Sparse Light Fields Using a Local 4D Affine Model. *David, P., +, TCI 2020 791-805*

Tensor Representation for Three-Dimensional Radar Target Imaging With Sparsely Sampled Data. *Qiu, W., +, TCI 2020 263-275*

**Spaceborne radar**

Dynamic Analysis of Spin Satellites Through the Quadratic Phase Estimation in Multiple-Station Radar Images. *Zhou, Y., +, TCI 2020 894-907*

**Sparse matrices**

Low Rank Plus Sparse Decomposition of Synthetic Aperture Radar Data for Target Imaging. *Leibovich, M., +, TCI 2020 491-502*

OSRanP: A Novel Way for Radar Imaging Utilizing Joint Sparsity and Low-Rankness. *Pu, W., +, TCI 2020 868-882*

Using Low-Rank Tensors for the Recovery of MPI System Matrices. *Grosser, M., +, TCI 2020 1389-1402*

**Spatial resolution**

Boosting One-Shot Spectral Super-Resolution Using Transfer Learning. *Wei, W., +, TCI 2020 1459-1470*

Deep Recursive Network for Hyperspectral Image Super-Resolution. *Wei, W., +, TCI 2020 1233-1244*

Fast Joint Multiband Reconstruction From Wideband Images Based on Low-Rank Approximation. *Hadj-Youcef, M.A., +, TCI 2020 922-933*

Hyperspectral and Multispectral Image Fusion Under Spectrally Varying Spatial Blurs – Application to High Dimensional Infrared Astronomical Imaging. *Guilloteau, C., +, TCI 2020 1362-1374*

Learning Spatial-Spectral Prior for Super-Resolution of Hyperspectral Imagery. *Jiang, J., +, TCI 2020 1082-1096*

Reconstruction of Hyperspectral Data From RGB Images With Prior Category Information. *Yan, L., +, TCI 2020 1070-1081*

**Speckle**

Coherent Plug-and-Play: Digital Holographic Imaging Through Atmospheric Turbulence Using Model-Based Iterative Reconstruction and Convolutional Neural Networks. *Pellizzari, C.J., +, TCI 2020 1607-1621*

Speckle Suppression in Multi-Channel Coherent Imaging: A Tractable Bayesian Approach. *Tucker, D., +, TCI 2020 1429-1439*

**Spectral analysis**

Bayesian 3D Reconstruction of Subsampled Multispectral Single-Photon Lidar Signals. *Tachella, J., +, TCI 2020 208-220*

Deep Generative Endmember Modeling: An Application to Unsupervised Spectral Unmixing. *Borsoi, R.A., +, TCI 2020 374-384*

**Sprites (computer)**

SPRITE: 3-D SParse Radar Imaging TEchnique. *Benoudiba-Campanini, T., +, TCI 2020 1059-1069*

**Stereo image processing**

Building Stereoscopic Zoomer via Global and Local Warping Optimization. *Shao, F., +, TCI 2020 1622-1635*

Microwave Breast Imaging Using a Dry Setup. *Felicio, J.M., +, TCI 2020 167-180*

Robust Restoration of Sparse Multidimensional Single-Photon LiDAR Images. *Halimi, A., +, TCI 2020 138-152*

Tensor Representation for Three-Dimensional Radar Target Imaging With Sparsely Sampled Data. *Qiu, W., +, TCI 2020 263-275*

Zero-Shot Depth Estimation From Light Field Using A Convolutional Neural Network. *Peng, J., +, TCI 2020 682-696*

**Stochastic processes**

Robust Restoration of Sparse Multidimensional Single-Photon LiDAR Images. *Halimi, A., +, TCI 2020 138-152*

**Synthetic aperture radar**

Exact Multistatic Interferometric Imaging via Generalized Wirtinger Flow. *Yonel, B., +, TCI 2020 711-726*

Generalized Phase Gradient Autofocus Using Semidefinite Relaxation Phase Estimation. *Evers, A., +, TCI 2020 291-303*

Low Rank Plus Sparse Decomposition of Synthetic Aperture Radar Data for Target Imaging. *Leibovich, M., +, TCI 2020 491-502*

OSRanP: A Novel Way for Radar Imaging Utilizing Joint Sparsity and Low-Rankness. *Pu, W., +, TCI 2020 868-882*

Speckle Suppression in Multi-Channel Coherent Imaging: A Tractable Bayesian Approach. *Tucker, D., +, TCI 2020 1429-1439*

Synthetic Aperture Imaging With Intensity-Only Data. *Moscoso, M., +, TCI 2020 87-94*

**T****Talbot effect**

Truncation Correction for X-ray Phase-Contrast Region-of-Interest Tomography. *Felsner, L., +, TCI 2020 625-639*

**Task analysis**

360 Panorama Synthesis from a Sparse Set of Images on a Low-Power Device. *Sumantri, J.S., +, TCI 2020 1179-1193*

Automated FDK-Filter Selection for Cone-Beam CT in Research Environments. *Lagerwerf, M.J., +, TCI 2020 739-748*

Contrast-Medium Anisotropy-Aware Tensor Total Variation Model for Robust Cerebral Perfusion CT Reconstruction With Low-Dose Scans. *Zhang, Y., +, TCI 2020 1375-1388*

Multi-Angular Epipolar Geometry Based Light Field Angular Reconstruction Network. *Liu, D., +, TCI 2020 1507-1522*

S2DNet: Depth Estimation From Single Image and Sparse Samples. *Hambardzumyan, P., +, TCI 2020 806-817*

Towards Reducing Severe Defocus Spread Effects for Multi-Focus Image Fusion via an Optimization Based Strategy. *Xu, S., +, TCI 2020 1561-1570*

**Technological innovation**

Autoregressive Model-Based Reconstruction of Quantitative Acoustic Maps From RF Signals Sampled at Innovation Rate. *Kim, J., +, TCI 2020 993-1006*

**Tensile stress**

Contrast-Medium Anisotropy-Aware Tensor Total Variation Model for Robust Cerebral Perfusion CT Reconstruction With Low-Dose Scans. *Zhang, Y., +, TCI 2020 1375-1388*

Using Low-Rank Tensors for the Recovery of MPI System Matrices. *Grosser, M., +, TCI 2020 1389-1402*

**Tensors**

Robust Low-Rank Tensor Ring Completion. *Huang, H., +, TCI 2020 1117-1126*

SISTER: Spectral-Image Similarity-Based Tensor With Enhanced-Sparsity Reconstruction for Sparse-View Multi-Energy CT. *Hu, D., +, TCI 2020 477-490*

**Three-dimensional displays**

3D Localization for Light-Field Microscopy via Convolutional Sparse Coding on Epipolar Images. *Song, P., +, TCI 2020 1017-1032*

An End-to-End Deep Network for Reconstructing CT Images Directly From Sparse Sinograms. *Wang, W., +, TCI 2020 1548-1560*

Building Stereoscopic Zoomer via Global and Local Warping Optimization. *Shao, F., +, TCI 2020 1622-1635*

Compressive Spectral Imaging Based on Hexagonal Blue Noise Coded Apertures. *Zhang, H., +, TCI 2020 749-763*

Efficient Regularized Field Map Estimation in 3D MRI. *Lin, C.Y., +, TCI 2020 1451-1458*

Expectation-Maximization Based Approach to 3D Reconstruction From Single-Waveform Multispectral Lidar Data. *Legros, Q., +, TCI 2020 1033-1043*

High-fidelity View Synthesis for Light Field Imaging With Extended Pseudo 4DCNN. *Wang, Y., +, TCI 2020 830-842*

High-Speed Phase-Shifting 3D Profilometry on Human Face Assisted by Statistical Model. *Yu, Y., +, TCI 2020 1007-1016*

Joint Image and Depth Estimation With Mask-Based Lensless Cameras. *Zheng, Y., +, TCI 2020 1167-1178*

Learning Stereo High Dynamic Range Imaging From A Pair of Cameras With Different Exposure Parameters. *Chen, Y., +, TCI 2020 1044-1058*

Multi-Angular Epipolar Geometry Based Light Field Angular Reconstruction Network. *Liu, D., +, TCI 2020 1507-1522*

Scene Flow Estimation From Sparse Light Fields Using a Local 4D Affine Model. *David, P., +, TCI 2020 791-805*

Segmentation-Driven Optimization For Iterative Reconstruction in Optical Projection Tomography: An Exploration. *Tang, X., +, TCI 2020 1537-1547*

**Thresholding (Imaging)**

Soft Autoencoder and Its Wavelet Adaptation Interpretation. *Fan, F., +, TCI 2020 1245-1257*

**Time measurement**

High-Speed Phase-Shifting 3D Profilometry on Human Face Assisted by Statistical Model. *Yu, Y., +, TCI 2020 1007-1016*

**Time-domain analysis**

A Time-Domain Multigrid Solver With Higher-Order Born Approximation for Full-Wave Radar Tomography of a Complex-Shaped Target. *Sorsa, L., +, TCI 2020 579-590*

**Tomography**

A Point Constrained Boundary Reconstruction Framework for Ultrasound Guided Electrical Impedance Tomography. *Ren, S., +, TCI 2020 1336-1350*

A Time-Domain Multigrid Solver With Higher-Order Born Approximation for Full-Wave Radar Tomography of a Complex-Shaped Target. *Sorsa, L., +, TCI 2020 579-590*

Analytic Inversion of a Radon Transform on Double Circular Arcs With Applications in Compton Scattering Tomography. *Tarpau, C., +, TCI 2020 958-967*

High-Contrast Reflection Tomography With Total-Variation Constraints. *Kadu, A., +, TCI 2020 1523-1536*

**Training**

Boosting One-Shot Spectral Super-Resolution Using Transfer Learning. *Wei, W., +, TCI 2020 1459-1470*

Fast Multi-Focus Ultrasound Image Recovery Using Generative Adversarial Networks. *Goudarzi, S., +, TCI 2020 1272-1284*

Noise2Inverse: Self-Supervised Deep Convolutional Denoising for Tomography. *Hendriksen, A.A., +, TCI 2020 1320-1335*

**Transducers**

Pre-migration: A General Extension for Photoacoustic Imaging Reconstruction. *Jin, H., +, TCI 2020 1097-1105*

**Transforms**

Analytic Inversion of a Radon Transform on Double Circular Arcs With Applications in Compton Scattering Tomography. *Tarpau, C., +, TCI 2020 958-967*

- Automated Regularization Parameter Selection Using Continuation Based Proximal Method for Compressed Sensing MRI. *Mathew, R.S., +, TCI 2020 1309-1319*
- Towards Reducing Severe Defocus Spread Effects for Multi-Focus Image Fusion via an Optimization Based Strategy. *Xu, S., +, TCI 2020 1561-1570*
- Traveling salesman problems**
- Reconstruction of Image Sequences From Ungated and Scanning-Aberrated Laser Scanning Microscopy Images of the Beating Heart. *Mariani, O., +, TCI 2020 385-395*
- Tumors**
- Microwave Breast Imaging Using a Dry Setup. *Felicio, J.M., +, TCI 2020 167-180*
- TV**
- Contrast-Medium Anisotropy-Aware Tensor Total Variation Model for Robust Cerebral Perfusion CT Reconstruction With Low-Dose Scans. *Zhang, Y., +, TCI 2020 1375-1388*
- Two dimensional displays**
- High-fidelity View Synthesis for Light Field Imaging With Extended Pseudo 4DCNN. *Wang, Y., +, TCI 2020 830-842*
- Microwave Imaging Using Optimization With Variable Number of Dimensions. *Kadlec, P., +, TCI 2020 1586-1594*
- Sharp Computational Images From Diffuse Beams: Factorization of the Discrete Delta Function. *Svalbe, I.D., +, TCI 2020 1258-1271*
- U**
- Ultrasonic imaging**
- A Point Constrained Boundary Reconstruction Framework for Ultrasound Guided Electrical Impedance Tomography. *Ren, S., +, TCI 2020 1336-1350*
- Coding Mask Design for Single Sensor Ultrasound Imaging. *van der Meulen, P., +, TCI 2020 358-373*
- Frequency Domain Based Virtual Detector for Heterogeneous Media in Photoacoustic Imaging. *Jin, H., +, TCI 2020 569-578*
- Ultrasonic transducers**
- Synthetic Aperture Imaging With Intensity-Only Data. *Moscoso, M., +, TCI 2020 87-94*
- Ultrasonic variables measurement**
- A Point Constrained Boundary Reconstruction Framework for Ultrasound Guided Electrical Impedance Tomography. *Ren, S., +, TCI 2020 1336-1350*
- High-Contrast Reflection Tomography With Total-Variation Constraints. *Kadu, A., +, TCI 2020 1523-1536*
- Unsupervised learning**
- VIF-Net: An Unsupervised Framework for Infrared and Visible Image Fusion. *Hou, R., +, TCI 2020 640-651*
- V**
- Vectors**
- DAViS Camera Optical Flow. *Almatrafi, M., +, TCI 2020 396-407*
- Exact Multistatic Interferometric Imaging via Generalized Wirtinger Flow. *Yonel, B., +, TCI 2020 711-726*
- Tensor Representation for Three-Dimensional Radar Target Imaging With Sparsely Sampled Data. *Qiu, W., +, TCI 2020 263-275*
- Video signal processing**
- Design and Calibration of a Fast Flying-Dot Projector for Dynamic Light Transport Acquisition. *Henderson, K., +, TCI 2020 529-543*
- Fast Retinomorphic Event-Driven Representations for Video Gameplay and Action Recognition. *Chen, H., +, TCI 2020 276-290*
- High-Speed Imaging Using CMOS Image Sensor With Quasi Pixel-Wise Exposure. *Yoshida, M., +, TCI 2020 463-476*
- Zero-Shot Depth Estimation From Light Field Using A Convolutional Neural Network. *Peng, J., +, TCI 2020 682-696*
- Visualization**
- Blind Binocular Visual Quality Predictor Using Deep Fusion Network. *Zhou, W., +, TCI 2020 883-893*
- W**
- Wave propagation**
- A Time-Domain Multigrid Solver With Higher-Order Born Approximation for Full-Wave Radar Tomography of a Complex-Shaped Target. *Sorsa, L., +, TCI 2020 579-590*
- Wavelet coefficients**
- Soft Autoencoder and Its Wavelet Adaptation Interpretation. *Fan, F., +, TCI 2020 1245-1257*
- Wavelet transforms**
- Removing Reflection From a Single Image With Ghosting Effect. *Huang, Y., +, TCI 2020 34-45*
- X**
- X-ray imaging**
- An End-to-End Deep Network for Reconstructing CT Images Directly From Sparse Sinograms. *Wang, W., +, TCI 2020 1548-1560*
- CaGAN: A Cycle-Consistent Generative Adversarial Network With Attention for Low-Dose CT Imaging. *Huang, Z., +, TCI 2020 1203-1218*
- Photon Allocation Strategy in Region-of-Interest Tomographic Imaging. *Zhu, Z., +, TCI 2020 125-137*
- Truncation Correction for X-ray Phase-Contrast Region-of-Interest Tomography. *Felsner, L., +, TCI 2020 625-639*