

2020 Index

IEEE Transactions on Pattern Analysis and Machine Intelligence

Vol. 42

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

Aberdam, A., see Sulam, J., *TPAMI Aug. 2020 1968-1980*

Achterhold, J., see Vinogradskaja, J., *TPAMI Jan. 2020 164-175*

Adams, J.K., see Boominathan, V., *TPAMI July 2020 1618-1629*

Adeli, E., Li, X., Kwon, D., Zhang, Y., and Pohl, K.M., Logistic Regression Confined by Cardinality-Constrained Sample and Feature Selection; *TPAMI July 2020 1713-1728*

Agaian, S., see Panetta, K., *TPAMI March 2020 509-520*

Aizawa, K., see Almatrafi, M., *TPAMI July 2020 1547-1556*

Aizawa, K., see Horiguchi, S., *TPAMI May 2020 1279-1285*

Akagunduz, E., Bors, A.G., and Evans, K.K., Defining Image Memorability Using the Visual Memory Schema; *TPAMI Sept. 2020 2165-2178*

Akhtar, N., and Mian, A., Hyperspectral Recovery from RGB Images using Gaussian Processes; *TPAMI Jan. 2020 100-113*

Akilan, T., see Yang, Y., *TPAMI Nov. 2020 2912-2925*

Alameda-Pineda, X., see Lathuiliere, S., *TPAMI Sept. 2020 2065-2081*

Albanie, S., see Hu, J., *TPAMI Aug. 2020 2011-2023*

Albl, C., Kukulova, Z., Larsson, V., and Pajdla, T., Rolling Shutter Camera Absolute Pose; *TPAMI June 2020 1439-1452*

Almatrafi, M., Baldwin, R., Aizawa, K., and Hirakawa, K., Distance Surface for Event-Based Optical Flow; *TPAMI July 2020 1547-1556*

Alpert, S., see Ofir, N., *TPAMI April 2020 894-908*

Alvarez, J.M., see Kosti, R., *TPAMI Nov. 2020 2755-2766*

Alvarez-Paiva, J.C., see Kacem, A., *TPAMI Jan. 2020 1-14*

Amjad, R.A., and Geiger, B.C., Learning Representations for Neural Network-Based Classification Using the Information Bottleneck Principle; *TPAMI Sept. 2020 2225-2239*

Amor, B.B., see Kacem, A., *TPAMI Jan. 2020 1-14*

Amor, B.B., see Tanfous, A.B., *TPAMI Oct. 2020 2594-2607*

Andonian, A., see Monfort, M., *TPAMI Feb. 2020 502-508*

Andres, B., see Keuper, M., *TPAMI Jan. 2020 140-153*

Arce, G.R., see Rueda-Chacon, H., *TPAMI Oct. 2020 2346-2360*

Arens, M., see Hesse, N., *TPAMI Oct. 2020 2540-2551*

Arnab, A., Miksik, O., and Torr, P.H.S., On the Robustness of Semantic Segmentation Models to Adversarial Attacks; *TPAMI Dec. 2020 3040-3053*

Ashtiani, H., see Eghbali, S., *TPAMI July 2020 1729-1740*

Asif, M.S., see Hua, Y., *TPAMI July 2020 1606-1617*

Auvolat, A., see Favreau, J., *TPAMI April 2020 837-850*

Averbuch-Elor, H., Bar, N., and Cohen-Or, D., Border-Peeling Clustering; *TPAMI July 2020 1791-1797*

Avidan, S., see Berman, D., *TPAMI March 2020 720-734*

Ayache, S., see Escalera, S., *TPAMI May 2020 1021-1024*

B

Babu, R.V., see Sarvadevabhatla, R.K., *TPAMI Jan. 2020 221-231*

Bai, S., see Tang, P., *TPAMI Jan. 2020 176-191*

Bai, X., see Tang, P., *TPAMI Jan. 2020 176-191*

Baldwin, R., see Almatrafi, M., *TPAMI July 2020 1547-1556*

Balfour, D.R., see Clough, J.R., *TPAMI April 2020 988-997*

Balntas, V., Lenc, K., Vedaldi, A., Tuytelaars, T., Matas, J., and Mikolajczyk, K., H-Patches: A Benchmark and Evaluation of Handcrafted and Learned Local Descriptors; *TPAMI Nov. 2020 2825-2841*

Baluja, S., Hiding Images within Images; *TPAMI July 2020 1685-1697*

Bar, N., see Averbuch-Elor, H., *TPAMI July 2020 1791-1797*

Bargal, S.A., see Monfort, M., *TPAMI Feb. 2020 502-508*

Baro, X., see Escalera, S., *TPAMI May 2020 1021-1024*

Bartoli, A., see Parashar, S., *TPAMI Dec. 2020 3011-3026*

Basri, R., see Ofir, N., *TPAMI April 2020 894-908*

Batz, M., see Kohler, T., *TPAMI Nov. 2020 2944-2959*

Bazin, J., see Joo, K., *TPAMI Oct. 2020 2656-2669*

Beck, A., see Sulam, J., *TPAMI Aug. 2020 1968-1980*

Belkin, M., see Que, Q., *TPAMI Aug. 2020 1856-1867*

Benenson, R., see Oh, S.J., *TPAMI Jan. 2020 203-220*

Bennamoun, M., Guo, Y., Tombari, F., Youcef-Toumi, K., and Nishino, K., Guest Editors' Introduction to the Special Issue on RGB-D Vision: Methods and Applications; *TPAMI Oct. 2020 2329-2332*

Berman, D., Treibitz, T., and Avidan, S., Single Image Dehazing Using Haze-Lines; *TPAMI March 2020 720-734*

Bernard, F., see Tewari, A., *TPAMI Feb. 2020 357-370*

Berretti, S., see Kacem, A., *TPAMI Jan. 2020 1-14*

Bhandari, A., Conde, M.H., and Loffeld, O., One-Bit Time-Resolved Imaging; *TPAMI July 2020 1630-1641*

Bianco, S., see Hemrit, G., *TPAMI May 2020 1286-1287*

Birdal, T., Busam, B., Navab, N., Ilic, S., and Sturm, P., Generic Primitive Detection in Point Clouds Using Novel Minimal Quadric Fits; *TPAMI June 2020 1333-1347*

Bischof, H., see Opitz, M., *TPAMI Feb. 2020 276-290*

Bischoff, B., see Vinogradskaja, J., *TPAMI Jan. 2020 164-175*

Black, M.J., see Hesse, N., *TPAMI Oct. 2020 2540-2551*

Blanz, V., see Shahlaci, D., *TPAMI April 2020 865-879*

Blaschko, M.B., see Yu, J., *TPAMI March 2020 735-748*

Boominathan, V., Adams, J.K., Robinson, J.T., and Veeraraghavan, A., Phlat-Cam: Designed Phase-Mask Based Thin Lensless Camera; *TPAMI July 2020 1618-1629*

Borghini, G., Fabbri, M., Vezzani, R., Calderara, S., and Cucchiara, R., Face-from-Depth for Head Pose Estimation on Depth Images; *TPAMI March 2020 596-609*

Borji, A., see Wang, W., *TPAMI Aug. 2020 1913-1927*

Bors, A.G., see Akagunduz, E., *TPAMI Sept. 2020 2165-2178*

Bousseau, A., see Favreau, J., *TPAMI April 2020 837-850*

Bouthemy, P., see Perez-Rua, J., *TPAMI Aug. 2020 1996-2010*

Bowden, R., see Koller, O., *TPAMI Sept. 2020 2306-2320*

Brandt, A., see Ofir, N., *TPAMI April 2020 894-908*

Bronstein, A.M., see Zablati, A., *TPAMI Oct. 2020 2333-2345*

Bronstein, M.M., see Zablati, A., *TPAMI Oct. 2020 2333-2345*

Brown, L., see Monfort, M., *TPAMI Feb. 2020 502-508*

Brown, M.S., see Punnappurath, A., *TPAMI April 2020 1013-1019*

Brox, T., see Keuper, M., *TPAMI Jan. 2020 140-153*

Bulat, A., and Tzimiropoulos, G., Hierarchical Binary CNNs for Landmark Localization with Limited Resources; *TPAMI Feb. 2020 343-356*

Busam, B., see Birdal, T., *TPAMI June 2020 1333-1347*

C

- Cai, Z.**, Saberian, M., and Vasconcelos, N., Learning Complexity-Aware Cascades for Pedestrian Detection; *TPAMI Sept. 2020* 2195-2211
- Calderara, S.**, see Borghi, G., *TPAMI March 2020* 596-609
- Camgoz, N.C.**, see Koller, O., *TPAMI Sept. 2020* 2306-2320
- Campbell, D.**, Petersson, L., Kneip, L., and Li, H., Globally-Optimal Inlier Set Maximisation for Camera Pose and Correspondence Estimation; *TPAMI Feb. 2020* 328-342
- Cao, G.**, see Zou, D., *TPAMI June 2020* 1501-1514
- Cao, J.**, see He, R., *TPAMI May 2020* 1025-1037
- Cao, Q.**, see Parkhi, O.M., *TPAMI April 2020* 780-792
- Cao, Q.**, see Shi, Y., *TPAMI Nov. 2020* 2809-2824
- Cao, X.**, see Zhang, C., *TPAMI Jan. 2020* 86-99
- Carey, S.J.**, see Martel, J.N.P., *TPAMI July 2020* 1642-1653
- Carletti, V.**, Greco, A., Percannella, G., and Vento, M., Age from Faces in the Deep Learning Revolution; *TPAMI Sept. 2020* 2113-2132
- Carmona-Duarte, C.**, see Ferrer, M.A., *TPAMI Jan. 2020* 114-125
- Carneiro, G.**, see Liao, Z., *TPAMI Jan. 2020* 15-26
- Carneiro, G.**, see Nascimento, J.C., *TPAMI Dec. 2020* 3054-3070
- Cavallari, T.**, Golodetz, S., Lord, N.A., Valentin, J., Prisacariu, V.A., Stefano, L.D., and Torr, P.H.S., Real-Time RGB-D Camera Pose Estimation in Novel Scenes Using a Relocalisation Cascade; *TPAMI Oct. 2020* 2465-2477
- Chakrabarti, A.**, Sunkavalli, K., and Forsyth, D.A., Guest Editors' Introduction to the Special Section on Computational Photography; *TPAMI July 2020* 1545-1546
- Chang, J.**, Meng, G., Wang, L., Xiang, S., and Pan, C., Deep Self-Evolution Clustering; *TPAMI April 2020* 809-823
- Chang, J.**, Wang, L., Meng, G., Zhang, Q., Xiang, S., and Pan, C., Local-Aggregation Graph Networks; *TPAMI Nov. 2020* 2874-2886
- Chen, C.**, Xiong, Z., Tian, X., Zha, Z., and Wu, F., Real-World Image Denoising with Deep Boosting; *TPAMI Dec. 2020* 3071-3087
- Chen, H.**, see Chen, Y., *TPAMI July 2020* 1654-1669
- Chen, M.**, see Wang, Q., *TPAMI Jan. 2020* 46-58
- Chen, X.**, see Zou, D., *TPAMI June 2020* 1501-1514
- Chen, Y.**, Shen, C., Chen, H., Wei, X., Liu, L., and Yang, J., Adversarial Learning of Structure-Aware Fully Convolutional Networks for Landmark Localization; *TPAMI July 2020* 1654-1669
- Chen, Y.**, see Shen, Z., *TPAMI Feb. 2020* 398-412
- Chen, Y.**, see Gu, S., *TPAMI Oct. 2020* 2437-2452
- Chen, Y.**, see Lu, C., *TPAMI April 2020* 925-938
- Chen, Y.**, Ye, J., and Li, J., Aggregated Wasserstein Distance and State Registration for Hidden Markov Models; *TPAMI Sept. 2020* 2133-2147
- Cheng, G.**, see Lyu, X., *TPAMI Aug. 2020* 2024-2037
- Cheng, K.H.M.**, and Kumar, A., Contactless Biometric Identification Using 3D Finger Knuckle Patterns; *TPAMI Aug. 2020* 1868-1883
- Cheng, S.**, see Liu, R., *TPAMI Dec. 2020* 3027-3039
- Cheng, X.**, see Huang, X., *TPAMI Oct. 2020* 2702-2719
- Cheng, X.**, Wang, P., and Yang, R., Learning Depth with Convolutional Spatial Propagation Network; *TPAMI Oct. 2020* 2361-2379
- Chevrev, I.**, Nanda, V., and Oberhauser, H., Persistence Paths and Signature Features in Topological Data Analysis; *TPAMI Jan. 2020* 192-202
- Chiu, C.**, Prayoonwong, A., and Liao, Y., Learning to Index for Nearest Neighbor Search; *TPAMI Aug. 2020* 1942-1956
- Cho, D.**, Matsushita, Y., Tai, Y., and Kweon, I.S., Semi-Calibrated Photometric Stereo; *TPAMI Jan. 2020* 232-245
- Clough, J.R.**, Balfour, D.R., Cruz, G., Marsden, P.K., Prieto, C., Reader, A.J., and King, A.P., Weighted Manifold Alignment using Wave Kernel Signatures for Aligning Medical Image Datasets; *TPAMI April 2020* 988-997
- Cohen-Or, D.**, see Averbuch-Elor, H., *TPAMI July 2020* 1791-1797
- Conde, M.H.**, see Bhandari, A., *TPAMI July 2020* 1630-1641
- Corso, J.J.**, see Szeto, R., *TPAMI May 2020* 1053-1068
- Creemers, D.**, see Haefner, B., *TPAMI Oct. 2020* 2453-2464
- Crivelli, T.**, see Perez-Rua, J., *TPAMI Aug. 2020* 1996-2010
- Cruz, G.**, see Clough, J.R., *TPAMI April 2020* 988-997
- Cucchiara, R.**, see Borghi, G., *TPAMI March 2020* 596-609
- Cui, Z.**, see Zhang, Z., *TPAMI Oct. 2020* 2608-2623

D

- Dai, B.T.**, see Zhang, D., *TPAMI Sept. 2020* 2287-2305
- Dai, Q.**, see Yu, T., *TPAMI Oct. 2020* 2523-2539
- Daoudi, M.**, see Kacem, A., *TPAMI Jan. 2020* 1-14
- Darrell, T.**, see Simon, M., *TPAMI March 2020* 749-763
- David, P.**, see Zhang, Y., *TPAMI Aug. 2020* 1823-1841
- de Croon, G.C.H.E.**, see Paredes-Valles, F., *TPAMI Aug. 2020* 2051-2064
- Del Bue, A.**, see Magerand, L., *TPAMI Feb. 2020* 430-443
- Delbracio, M.**, see Martino, J.M.D., *TPAMI July 2020* 1582-1593
- Deng, B.**, see Jiang, L., *TPAMI Oct. 2020* 2552-2566
- Deng, Z.**, see Nauata, N., *TPAMI May 2020* 1257-1271
- Denzler, J.**, see Simon, M., *TPAMI March 2020* 749-763
- Diaz, M.**, see Ferrer, M.A., *TPAMI Jan. 2020* 114-125
- Dickinson, S.**, State of the Journal Editorial; *TPAMI Feb. 2020* 253-260
- Ding, H.**, see Liu, J., *TPAMI Feb. 2020* 494-501
- Ding, L.**, see Liu, Y., *TPAMI May 2020* 1083-1096
- Ding, W.**, see Yu, K., *TPAMI Sept. 2020* 2240-2256
- Ding, Y.**, see Zhou, M., *TPAMI July 2020* 1594-1605
- Ding, Z.**, see Jiang, S., *TPAMI May 2020* 1097-1111
- Dixit, M.**, Li, Y., and Vasconcelos, N., Semantic Fisher Scores for Task Transfer: Using Objects to Classify Scenes; *TPAMI Dec. 2020* 3102-3118
- Dollar, P.**, see He, K., *TPAMI Feb. 2020* 386-397
- Dollar, P.**, see Lin, T., *TPAMI Feb. 2020* 318-327
- Dong, H.**, see Fu, Y., *TPAMI Dec. 2020* 3136-3152
- Dong, M.**, Wang, Y., Yang, X., and Xue, J., Learning Local Metrics and Influential Regions for Classification; *TPAMI June 2020* 1522-1529
- Dong, X.**, see Wang, W., *TPAMI Aug. 2020* 1913-1927
- Dou, Y.**, see Liu, X., *TPAMI June 2020* 1303-1316
- Drew, M.S.**, see Hemrit, G., *TPAMI May 2020* 1286-1287
- Drira, H.**, see Tanfous, A.B., *TPAMI Oct. 2020* 2594-2607
- Drummond, T.**, see Liao, Z., *TPAMI Jan. 2020* 15-26
- Duan, L.**, see Liu, J., *TPAMI Feb. 2020* 494-501
- Duan, L.**, see Liong, V.E., *TPAMI March 2020* 580-595
- Duan, L.**, see Liu, J., *TPAMI June 2020* 1453-1467
- Duan, L.**, see Liu, J., *TPAMI Oct. 2020* 2684-2701
- Duan, L.**, see Wan, R., *TPAMI Dec. 2020* 2969-2982
- Duanmu, Z.**, see Ma, K., *TPAMI April 2020* 851-864
- Dudek, P.**, see Martel, J.N.P., *TPAMI July 2020* 1642-1653

E

- Eftekhari, A.**, Hauser, R.A., and Grammenos, A., MOSES: A Streaming Algorithm for Linear Dimensionality Reduction; *TPAMI Nov. 2020* 2901-2911
- Eghbali, S.**, Ashtiani, H., and Tahvildari, L., Online Nearest Neighbor Search Using Hamming Weight Trees; *TPAMI July 2020* 1729-1740
- Elad, M.**, see Sulam, J., *TPAMI Aug. 2020* 1968-1980
- Eldesokey, A.**, Felsberg, M., and Khan, F.S., Confidence Propagation through CNNs for Guided Sparse Depth Regression; *TPAMI Oct. 2020* 2423-2436
- Ernst, J.**, see Li, K., *TPAMI Dec. 2020* 2996-3010
- Escalante, H.J.**, see Escalera, S., *TPAMI May 2020* 1021-1024
- Escalera, S.**, Escalante, H.J., Baro, X., Guyon, I., Madadi, M., Wan, J., Ayache, S., Gucluturk, Y., and Guclu, U., Guest Editorial: Image and Video Inpainting and Denoising; *TPAMI May 2020* 1021-1024
- Evans, K.K.**, see Akagunduz, E., *TPAMI Sept. 2020* 2165-2178

F

- Fabbri, M.**, see Borghi, G., *TPAMI March 2020* 596-609
- Fan, Q.**, see Monfort, M., *TPAMI Feb. 2020* 502-508
- Fan, X.**, see Liu, R., *TPAMI Dec. 2020* 3027-3039
- Fang, L.**, see Xu, L., *TPAMI Oct. 2020* 2508-2522
- Fang, T.**, see Zhang, R., *TPAMI Feb. 2020* 291-303
- Farrugia, R.A.**, and Guillemot, C., Light Field Super-Resolution Using a Low-Rank Prior and Deep Convolutional Neural Networks; *TPAMI May 2020* 1162-1175

Favreau, J., Lafarge, F., Bousseau, A., and Auvolet, A., Extracting Geometric Structures in Images with Delaunay Point Processes; *TPAMI April 2020* 837-850

Felsberg, M., see Eldesokey, A., *TPAMI Oct. 2020* 2423-2436

Feng, J., see Xiao, H., *TPAMI May 2020* 1205-1217

Feng, J., see Yang, W., *TPAMI June 2020* 1377-1393

Feng, J., see Lu, C., *TPAMI April 2020* 925-938

Feng, X., see Yang, Y., *TPAMI Nov. 2020* 2912-2925

Fernando, B., see Yu, X., *TPAMI Nov. 2020* 2926-2943

Ferrer, M.A., Diaz, M., Carmona-Duarte, C., and Plamondon, R., iDeLog: Iterative Dual Spatial and Kinematic Extraction of Sigma-Lognormal Parameters; *TPAMI Jan. 2020* 114-125

Finlayson, G.D., see Hemrit, G., *TPAMI May 2020* 1286-1287

Florez-Ospina, J.F., see Rueda-Chacon, H., *TPAMI Oct. 2020* 2346-2360

Foroosh, H., see Zhang, Y., *TPAMI Aug. 2020* 1823-1841

Forsyth, D.A., see Chakrabarti, A., *TPAMI July 2020* 1545-1546

Fritz, M., see Oh, S.J., *TPAMI Jan. 2020* 203-220

Fu, C., see Hu, X., *TPAMI Nov. 2020* 2795-2808

Fu, H., see Zhang, C., *TPAMI Jan. 2020* 86-99

Fu, Y., see Qian, X., *TPAMI Feb. 2020* 371-385

Fu, Y., see Kong, Y., *TPAMI March 2020* 539-553

Fu, Y., see Jiang, S., *TPAMI May 2020* 1097-1111

Fu, Y., Wang, X., Dong, H., Jiang, Y., Wang, M., Xue, X., and Sigal, L., Vocabulary-Informed Zero-Shot and Open-Set Learning; *TPAMI Dec. 2020* 3136-3152

Fu, Y., see Li, K., *TPAMI Dec. 2020* 2996-3010

Fua, P., see Mosinska, A., *TPAMI June 2020* 1515-1521

Fujimura, Y., Iiyama, M., Hashimoto, A., and Minoh, M., Photometric Stereo in Participating Media Using an Analytical Solution for Shape-Dependent Forward Scatter; *TPAMI March 2020* 708-719

Funt, B., see Hemrit, G., *TPAMI May 2020* 1286-1287

G

Gall, J., see Panareda Busto, P., *TPAMI Feb. 2020* 413-429

Gall, J., see Kuehne, H., *TPAMI April 2020* 765-779

Galun, M., see Ofir, N., *TPAMI April 2020* 894-908

Gao, H., Yuan, H., Wang, Z., and Ji, S., Pixel Transposed Convolutional Networks; *TPAMI May 2020* 1218-1227

Gao, J., Wang, Q., Xing, J., Ling, H., Hu, W., and Maybank, S., Tracking-by-Fusion via Gaussian Process Regression Extended to Transfer Learning; *TPAMI April 2020* 939-955

Gao, L., Li, X., Song, J., and Shen, H.T., Hierarchical LSTMs with Adaptive Attention for Visual Captioning; *TPAMI May 2020* 1112-1131

Gao, R., see Xie, J., *TPAMI Jan. 2020* 27-45

Gao, W., see Liu, X., *TPAMI May 2020* 1191-1204

Garcia, N.C., Morerio, P., and Murino, V., Learning with Privileged Information via Adversarial Discriminative Modality Distillation; *TPAMI Oct. 2020* 2581-2593

Garrido, P., see Tewari, A., *TPAMI Feb. 2020* 357-370

Gehler, P., see Hemrit, G., *TPAMI May 2020* 1286-1287

Geiger, B.C., see Amjad, R.A., *TPAMI Sept. 2020* 2225-2239

Geng, Q., see Huang, X., *TPAMI Oct. 2020* 2702-2719

Ghanem, B., see Yu, X., *TPAMI Sept. 2020* 2148-2164

Ghasemi, A., see Scholefield, A., *TPAMI Sept. 2020* 2321-2326

Ghosh, A.K., see Sarkar, S., *TPAMI Sept. 2020* 2257-2272

Gijsenij, A., see Hemrit, G., *TPAMI May 2020* 1286-1287

Giraldo, L.G.S., see Yu, S., *TPAMI Nov. 2020* 2960-2966

Girshick, R., see He, K., *TPAMI Feb. 2020* 386-397

Girshick, R., see Lin, T., *TPAMI Feb. 2020* 318-327

Gkioxari, G., see He, K., *TPAMI Feb. 2020* 386-397

Golodetz, S., see Cavallari, T., *TPAMI Oct. 2020* 2465-2477

Gong, B., see Zhang, Y., *TPAMI Aug. 2020* 1823-1841

Gong, S., see Li, M., *TPAMI July 2020* 1770-1782

Gori, M., see Zanca, D., *TPAMI Dec. 2020* 2983-2995

Goyal, P., see Lin, T., *TPAMI Feb. 2020* 318-327

Grammenos, A., see Eftekhari, A., *TPAMI Nov. 2020* 2901-2911

Greco, A., see Carletti, V., *TPAMI Sept. 2020* 2113-2132

Gu, S., Guo, S., Zuo, W., Chen, Y., Timofte, R., Van Gool, L., and Zhang, L., Learned Dynamic Guidance for Depth Image Reconstruction; *TPAMI Oct. 2020* 2437-2452

Guclu, U., see Escalera, S., *TPAMI May 2020* 1021-1024

Gucluturk, Y., see Escalera, S., *TPAMI May 2020* 1021-1024

Guillemot, C., see Farrugia, R.A., *TPAMI May 2020* 1162-1175

Guo, F., see Ji, R., *TPAMI Oct. 2020* 2410-2422

Guo, K., see Yu, T., *TPAMI Oct. 2020* 2523-2539

Guo, M., see Liu, H., *TPAMI March 2020* 679-693

Guo, S., see Gu, S., *TPAMI Oct. 2020* 2437-2452

Guo, X., Li, Y., Ma, J., and Ling, H., Mutually Guided Image Filtering; *TPAMI March 2020* 694-707

Guo, X., see Ji, R., *TPAMI Oct. 2020* 2410-2422

Guo, Y., see Bennamoun, M., *TPAMI Oct. 2020* 2329-2332

Guo, Z., see Yang, W., *TPAMI June 2020* 1377-1393

Gutfreund, D., see Monfort, M., *TPAMI Feb. 2020* 502-508

Guyon, I., see Escalera, S., *TPAMI May 2020* 1021-1024

H

Haefele, B.D., and Vidal, R., Structured Low-Rank Matrix Factorization: Global Optimality, Algorithms, and Applications; *TPAMI June 2020* 1468-1482

Haefner, B., Peng, S., Verma, A., Queau, Y., and Cremers, D., Photometric Depth Super-Resolution; *TPAMI Oct. 2020* 2453-2464

Han, J., see Zhang, D., *TPAMI July 2020* 1755-1769

Han, J., see Zhang, D., *TPAMI Feb. 2020* 475-489

Han, L., see Xu, L., *TPAMI Oct. 2020* 2508-2522

Han, Y., see Liu, Y., *TPAMI July 2020* 1798-1805

Hane, C., Tulsiani, S., and Malik, J., Hierarchical Surface Prediction; *TPAMI June 2020* 1348-1361

Hartley, R., see Yu, X., *TPAMI Nov. 2020* 2926-2943

Hasan, M., Paul, S., Mourikis, A.I., and Roy-Chowdhury, A.K., Context-Aware Query Selection for Active Learning in Event Recognition; *TPAMI March 2020* 554-567

Hashimoto, A., see Fujimura, Y., *TPAMI March 2020* 708-719

Hauser, R.A., see Eftekhari, A., *TPAMI Nov. 2020* 2901-2911

He, K., Gkioxari, G., Dollar, P., and Girshick, R., Mask R-CNN; *TPAMI Feb. 2020* 386-397

He, K., see Lin, T., *TPAMI Feb. 2020* 318-327

He, R., Cao, J., Song, L., Sun, Z., and Tan, T., Adversarial Cross-Spectral Face Completion for NIR-VIS Face Recognition; *TPAMI May 2020* 1025-1037

He, Y., see Zhao, J., *TPAMI May 2020* 1176-1190

He, Y., see Liu, R., *TPAMI Dec. 2020* 3027-3039

Hemrit, G., Finlayson, G.D., Gijsenij, A., Gehler, P., Bianco, S., Drew, M.S., Funt, B., and Shi, L., Providing a Single Ground-Truth for Illuminant Estimation for the ColorChecker Dataset; *TPAMI May 2020* 1286-1287

Heng, P., see Hu, X., *TPAMI Nov. 2020* 2795-2808

Hesse, N., Pujades, S., Black, M.J., Arens, M., Hofmann, U.G., and Schroeder, A.S., Learning and Tracking the 3D Body Shape of Freely Moving Infants from RGB-D sequences; *TPAMI Oct. 2020* 2540-2551

Hirakawa, K., see Almatrafi, M., *TPAMI July 2020* 1547-1556

Hofmann, U.G., see Hesse, N., *TPAMI Oct. 2020* 2540-2551

Hong, W., Tang, X., Meng, J., and Yuan, J., Asymmetric Mapping Quantization for Nearest Neighbor Search; *TPAMI July 2020* 1783-1790

Horraud, R., see Lathuiliere, S., *TPAMI Sept. 2020* 2065-2081

Horiguchi, S., Ikami, D., and Aizawa, K., Significance of Softmax-Based Features in Comparison to Distance Metric Learning-Based Features; *TPAMI May 2020* 1279-1285

Hospedales, T.M., see Liu, F., *TPAMI Feb. 2020* 460-474

Hu, H., see Ye, J., *TPAMI Jan. 2020* 126-139

Hu, H., see Nauata, N., *TPAMI May 2020* 1257-1271

Hu, J., Shen, L., Albanie, S., Sun, G., and Wu, E., Squeeze-and-Excitation Networks; *TPAMI Aug. 2020* 2011-2023

- Hu, P.**, Wang, G., Kong, X., Kuen, J., and Tan, Y., Motion-Guided Cascaded Refinement Network for Video Object Segmentation; *TPAMI Aug. 2020* 1957-1967
- Hu, Q.**, see Zhang, C., *TPAMI Jan. 2020* 86-99
- Hu, W.**, see Gao, J., *TPAMI April 2020* 939-955
- Hu, X.**, Fu, C., Zhu, L., Qin, J., and Heng, P., Direction-Aware Spatial Context Features for Shadow Detection and Removal; *TPAMI Nov. 2020* 2795-2808
- Hua, K.A.**, see Ye, J., *TPAMI Jan. 2020* 126-139
- Hua, Y.**, Nakamura, S., Asif, M.S., and Sankaranarayanan, A.C., SweepCam — Depth-Aware Lensless Imaging Using Programmable Masks; *TPAMI July 2020* 1606-1617
- Huang, C.**, Li, Y., Loy, C.C., and Tang, X., Deep Imbalanced Learning for Face Recognition and Attribute Prediction; *TPAMI Nov. 2020* 2781-2794
- Huang, F.**, see Ji, R., *TPAMI Oct. 2020* 2410-2422
- Huang, H.**, see Lin, D., *TPAMI Oct. 2020* 2642-2655
- Huang, J.**, see Li, D., *TPAMI June 2020* 1424-1438
- Huang, X.**, Wang, P., Cheng, X., Zhou, D., Geng, Q., and Yang, R., The ApolloScape Open Dataset for Autonomous Driving and Its Application; *TPAMI Oct. 2020* 2702-2719
- Huang, Y.**, Wu, Q., Wang, W., and Wang, L., Image and Sentence Matching via Semantic Concepts and Order Learning; *TPAMI March 2020* 636-650
- Hudelot, C.**, see Tamaazousti, Y., *TPAMI Sept. 2020* 2212-2224

I

- Iacovacci, J.**, and Lacasa, L., Visibility Graphs for Image Processing; *TPAMI April 2020* 974-987
- Iglesias, F.**, Zseby, T., and Zimek, A., Absolute Cluster Validity; *TPAMI Sept. 2020* 2096-2112
- Iiyama, M.**, see Fujimura, Y., *TPAMI March 2020* 708-719
- Ikami, D.**, see Horiguchi, S., *TPAMI May 2020* 1279-1285
- Ilic, S.**, see Birdal, T., *TPAMI June 2020* 1333-1347
- Iqbal, A.**, see Panareda Busto, P., *TPAMI Feb. 2020* 413-429

J

- Jenssen, R.**, see Yu, S., *TPAMI Nov. 2020* 2960-2966
- Ji, Q.**, see Wang, S., *TPAMI Sept. 2020* 2082-2095
- Ji, R.**, Li, K., Wang, Y., Sun, X., Guo, F., Guo, X., Wu, Y., Huang, F., and Luo, J., Semi-Supervised Adversarial Monocular Depth Estimation; *TPAMI Oct. 2020* 2410-2422
- Ji, S.**, see Gao, H., *TPAMI May 2020* 1218-1227
- Ji, Y.**, see Zhou, M., *TPAMI July 2020* 1594-1605
- Jiang, C.**, see Wang, K., *TPAMI May 2020* 1069-1082
- Jiang, L.**, Zhang, J., and Deng, B., Robust RGB-D Face Recognition Using Attribute-Aware Loss; *TPAMI Oct. 2020* 2552-2566
- Jiang, S.**, see Liu, Y., *TPAMI May 2020* 1083-1096
- Jiang, S.**, Ding, Z., and Fu, Y., Heterogeneous Recommendation via Deep Low-Rank Sparse Collective Factorization; *TPAMI May 2020* 1097-1111
- Jiang, X.**, see Liu, J., *TPAMI Feb. 2020* 494-501
- Jiang, Y.**, see Ye, H., *TPAMI July 2020* 1698-1712
- Jiang, Y.**, see Shen, Z., *TPAMI Feb. 2020* 398-412
- Jiang, Y.**, see Qian, X., *TPAMI Feb. 2020* 371-385
- Jiang, Y.**, see Fu, Y., *TPAMI Dec. 2020* 3136-3152
- Jie, Z.**, see Zhang, Z., *TPAMI Oct. 2020* 2608-2623
- Joo, K.**, Oh, T., Kweon, I.S., and Bazin, J., Globally Optimal Inlier Set Maximization for Atlanta World Understanding; *TPAMI Oct. 2020* 2656-2669

K

- Kacem, A.**, Daoudi, M., Amor, B.B., Berretti, S., and Alvarez-Paiva, J.C., A Novel Geometric Framework on Gram Matrix Trajectories for Human Behavior Understanding; *TPAMI Jan. 2020* 1-14
- Kalantari, N.K.**, see Paliwal, A., *TPAMI July 2020* 1557-1569
- Kalayeh, M.M.**, and Shah, M., Training Faster by Separating Modes of Variation in Batch-Normalized Models; *TPAMI June 2020* 1483-1500
- Kamath, S.**, see Panetta, K., *TPAMI March 2020* 509-520

- Kang, B.**, see Xiao, H., *TPAMI May 2020* 1205-1217
- Karni, Z.**, see Zablatani, A., *TPAMI Oct. 2020* 2333-2345
- Kasaei, S.H.**, Lopes, L.S., and Tome, A.M., Local-LDA: Open-Ended Learning of Latent Topics for 3D Object Recognition; *TPAMI Oct. 2020* 2567-2580
- Kaszowska, A.**, see Panetta, K., *TPAMI March 2020* 509-520
- Kaup, A.**, see Kohler, T., *TPAMI Nov. 2020* 2944-2959
- Kautz, J.**, see Sun, D., *TPAMI June 2020* 1408-1423
- Kayabol, K.**, Approximate Sparse Multinomial Logistic Regression for Classification; *TPAMI Feb. 2020* 490-493
- Keuper, M.**, Tang, S., Andres, B., Brox, T., and Schiele, B., Motion Segmentation & Multiple Object Tracking by Correlation Co-Clustering; *TPAMI Jan. 2020* 140-153
- Khan, F.S.**, see Eldesokey, A., *TPAMI Oct. 2020* 2423-2436
- Kim, C.**, and Klabjan, D., A Simple and Fast Algorithm for L1-Norm Kernel PCA; *TPAMI Aug. 2020* 1842-1855
- Kim, D.**, Woo, S., Lee, J., and Kweon, I.S., Recurrent Temporal Aggregation Framework for Deep Video Inpainting; *TPAMI May 2020* 1038-1052
- Kim, H.**, see Tewari, A., *TPAMI Feb. 2020* 357-370
- Kim, S.**, Min, D., Lin, S., and Sohn, K., Discrete-Continuous Transformation Matching for Dense Semantic Correspondence; *TPAMI Jan. 2020* 59-73
- Kimmel, R.**, see Shamaï, G., *TPAMI Jan. 2020* 74-85
- Kimmel, R.**, see Zablatani, A., *TPAMI Oct. 2020* 2333-2345
- King, A.P.**, see Clough, J.R., *TPAMI April 2020* 988-997
- Kitani, K.M.**, see Rhinehart, N., *TPAMI Feb. 2020* 304-317
- Klabjan, D.**, see Kim, C., *TPAMI Aug. 2020* 1842-1855
- Kleinsteuber, M.**, see Wei, X., *TPAMI Dec. 2020* 3119-3135
- Kloft, M.**, see Liu, X., *TPAMI May 2020* 1191-1204
- Kneip, L.**, see Campbell, D., *TPAMI Feb. 2020* 328-342
- Kneip, L.**, see Zhao, J., *TPAMI May 2020* 1176-1190
- Kohler, T.**, Batz, M., Naderi, F., Kaup, A., Maier, A., and Riess, C., Toward Bridging the Simulated-to-Real Gap: Benchmarking Super-Resolution on Real Data; *TPAMI Nov. 2020* 2944-2959
- Koller, O.**, Camgoz, N.C., Ney, H., and Bowden, R., Weakly Supervised Learning with Multi-Stream CNN-LSTM-HMMs to Discover Sequential Parallelism in Sign Language Videos; *TPAMI Sept. 2020* 2306-2320
- Koller, T.**, see Vinogradskaya, J., *TPAMI Jan. 2020* 164-175
- Kong, X.**, see Hu, P., *TPAMI Aug. 2020* 1957-1967
- Kong, Y.**, Tao, Z., and Fu, Y., Adversarial Action Prediction Networks; *TPAMI March 2020* 539-553
- Kosti, R.**, Alvarez, J.M., Recasens, A., and Lapedriza, A., Context Based Emotion Recognition Using EMOTIC Dataset; *TPAMI Nov. 2020* 2755-2766
- Kot, A.C.**, see Liu, J., *TPAMI Feb. 2020* 494-501
- Kot, A.C.**, see Liu, J., *TPAMI June 2020* 1453-1467
- Kot, A.C.**, see Liu, J., *TPAMI Oct. 2020* 2684-2701
- Kot, A.C.**, see Wan, R., *TPAMI Dec. 2020* 2969-2982
- Kozinski, M.**, see Mosinska, A., *TPAMI June 2020* 1515-1521
- Kuehne, H.**, Richard, A., and Gall, J., A Hybrid RNN-HMM Approach for Weakly Supervised Temporal Action Segmentation; *TPAMI April 2020* 765-779
- Kuen, J.**, see Hu, P., *TPAMI Aug. 2020* 1957-1967
- Kukelova, Z.**, see Albl, C., *TPAMI June 2020* 1439-1452
- Kumar, A.**, see Cheng, K.H.M., *TPAMI Aug. 2020* 1868-1883
- Kweon, I.S.**, see Cho, D., *TPAMI Jan. 2020* 232-245
- Kweon, I.S.**, see Kim, D., *TPAMI May 2020* 1038-1052
- Kweon, I.S.**, see Joo, K., *TPAMI Oct. 2020* 2656-2669
- Kwon, D.**, see Adeli, E., *TPAMI July 2020* 1713-1728

L

- Lacasa, L.**, see Iacovacci, J., *TPAMI April 2020* 974-987
- Lafarge, F.**, see Favreau, J., *TPAMI April 2020* 837-850
- Lai, Y.**, see Liu, Y., *TPAMI July 2020* 1798-1805
- Lapedriza, A.**, see Kosti, R., *TPAMI Nov. 2020* 2755-2766
- Larlus, D.**, see Novotny, D., *TPAMI Feb. 2020* 261-275
- Larsson, V.**, see Albl, C., *TPAMI June 2020* 1439-1452
- Lathuiliere, S.**, see Pilzer, A., *TPAMI Oct. 2020* 2380-2395

- Lathuiliere, S.**, Mesejo, P., Alameda-Pineda, X., and Horaud, R., A Comprehensive Analysis of Deep Regression; *TPAMI Sept. 2020* 2065-2081
- Lau, D.L.**, see Rueda-Chacon, H., *TPAMI Oct. 2020* 2346-2360
- Le, T.D.**, see Yu, K., *TPAMI Sept. 2020* 2240-2256
- Le Borgne, H.**, see Tamaazousti, Y., *TPAMI Sept. 2020* 2212-2224
- Le Thi, N.A.**, see Ramesh, B., *TPAMI Nov. 2020* 2767-2780
- Lee, J.**, see Kim, D., *TPAMI May 2020* 1038-1052
- Lenc, K.**, see Balntas, V., *TPAMI Nov. 2020* 2825-2841
- Lepetit, V.**, see Oberweger, M., *TPAMI Aug. 2020* 1898-1912
- Leung, S.**, see Shamwell, E.J., *TPAMI Oct. 2020* 2478-2493
- Li, D.**, Huang, J., Li, Y., Wang, S., and Yang, M., Progressive Representation Adaptation for Weakly Supervised Object Localization; *TPAMI June 2020* 1424-1438
- Li, G.**, see Shi, Y., *TPAMI Nov. 2020* 2809-2824
- Li, H.**, see Campbell, D., *TPAMI Feb. 2020* 328-342
- Li, H.**, see Yang, Y., *TPAMI March 2020* 521-538
- Li, H.**, see Yu, T., *TPAMI Oct. 2020* 2523-2539
- Li, H.**, see Ma, K., *TPAMI April 2020* 851-864
- Li, H.**, see Wan, R., *TPAMI Dec. 2020* 2969-2982
- Li, J.**, see Shen, Z., *TPAMI Feb. 2020* 398-412
- Li, J.**, see Zhang, R., *TPAMI April 2020* 909-924
- Li, J.**, see Chen, Y., *TPAMI Sept. 2020* 2133-2147
- Li, J.**, see Yu, K., *TPAMI Sept. 2020* 2240-2256
- Li, K.**, see Tang, Z., *TPAMI Aug. 2020* 2038-2050
- Li, K.**, see Ji, R., *TPAMI Oct. 2020* 2410-2422
- Li, K.**, Wu, Z., Peng, K., Ernst, J., and Fu, Y., Guided Attention Inference Network; *TPAMI Dec. 2020* 2996-3010
- Li, M.**, Zhu, X., and Gong, S., Unsupervised Tracklet Person Re-Identification; *TPAMI July 2020* 1770-1782
- Li, M.**, see Liu, X., *TPAMI May 2020* 1191-1204
- Li, M.**, see Liu, X., *TPAMI June 2020* 1303-1316
- Li, N.**, see Ye, H., *TPAMI July 2020* 1698-1712
- Li, Q.**, see Yang, Z., *TPAMI May 2020* 1243-1256
- Li, X.**, see Adeli, E., *TPAMI July 2020* 1713-1728
- Li, X.**, see Wang, Q., *TPAMI Jan. 2020* 46-58
- Li, X.**, see Gao, L., *TPAMI May 2020* 1112-1131
- Li, X.**, see Zhang, Z., *TPAMI Oct. 2020* 2608-2623
- Li, Y.**, see Guo, X., *TPAMI March 2020* 694-707
- Li, Y.**, see Yeh, M., *TPAMI June 2020* 1530-1536
- Li, Y.**, see Li, D., *TPAMI June 2020* 1424-1438
- Li, Y.**, see Huang, C., *TPAMI Nov. 2020* 2781-2794
- Li, Y.**, see Dixit, M., *TPAMI Dec. 2020* 3102-3118
- Li, Z.**, see Luo, G., *TPAMI June 2020* 1289-1302
- Lian, C.**, Liu, M., Zhang, J., and Shen, D., Hierarchical Fully Convolutional Network for Joint Atrophy Localization and Alzheimer's Disease Diagnosis Using Structural MRI; *TPAMI April 2020* 880-893
- Liang, J.**, see Yang, J., *TPAMI June 2020* 1537-1544
- Liao, S.**, see Liu, Y., *TPAMI May 2020* 1083-1096
- Liao, Y.**, see Chiu, C., *TPAMI Aug. 2020* 1942-1956
- Liao, Z.**, Drummond, T., Reid, I., and Carneiro, G., Approximate Fisher Information Matrix to Characterize the Training of Deep Neural Networks; *TPAMI Jan. 2020* 15-26
- Liao, Z.**, see Nauata, N., *TPAMI May 2020* 1257-1271
- Lin, D.**, and Huang, H., Zig-Zag Network for Semantic Segmentation of RGB-D Images; *TPAMI Oct. 2020* 2642-2655
- Lin, G.**, Liu, F., Milan, A., Shen, C., and Reid, I., RefineNet: Multi-Path Refinement Networks for Dense Prediction; *TPAMI May 2020* 1228-1242
- Lin, H.**, see Liu, Y., *TPAMI May 2020* 1083-1096
- Lin, L.**, see Wang, K., *TPAMI May 2020* 1069-1082
- Lin, L.**, see Shi, Y., *TPAMI Nov. 2020* 2809-2824
- Lin, S.**, see Kim, S., *TPAMI Jan. 2020* 59-73
- Lin, T.**, Goyal, P., Girshick, R., He, K., and Dollar, P., Focal Loss for Dense Object Detection; *TPAMI Feb. 2020* 318-327
- Lin, Z.**, see Lu, C., *TPAMI April 2020* 925-938
- Lin, Z.**, see Liu, R., *TPAMI Dec. 2020* 3027-3039
- Lindgren, K.**, see Shamwell, E.J., *TPAMI Oct. 2020* 2478-2493
- Ling, H.**, see Guo, X., *TPAMI March 2020* 694-707
- Ling, H.**, see Gao, J., *TPAMI April 2020* 939-955
- Liong, V.E.**, Lu, J., Duan, L., and Tan, Y., Deep Variational and Structural Hashing; *TPAMI March 2020* 580-595
- Liu, F.**, Xiang, T., Hospedales, T.M., Yang, W., and Sun, C., Inverse Visual Question Answering: A New Benchmark and VQA Diagnosis Tool; *TPAMI Feb. 2020* 460-474
- Liu, F.**, Zhao, Q., Liu, X., and Zeng, D., Joint Face Alignment and 3D Face Reconstruction with Application to Face Recognition; *TPAMI March 2020* 664-678
- Liu, F.**, see Lin, G., *TPAMI May 2020* 1228-1242
- Liu, H.**, Lu, J., Guo, M., Wu, S., and Zhou, J., Learning Reasoning-Decision Networks for Robust Face Alignment; *TPAMI March 2020* 679-693
- Liu, H.**, see Lyu, X., *TPAMI Aug. 2020* 2024-2037
- Liu, J.**, Ding, H., Shahroudy, A., Duan, L., Jiang, X., Wang, G., and Kot, A.C., Feature Boosting Network For 3D Pose Estimation; *TPAMI Feb. 2020* 494-501
- Liu, J.**, Shahroudy, A., Wang, G., Duan, L., and Kot, A.C., Skeleton-Based Online Action Prediction Using Scale Selection Network; *TPAMI June 2020* 1453-1467
- Liu, J.**, see Yang, W., *TPAMI June 2020* 1377-1393
- Liu, J.**, Shahroudy, A., Perez, M., Wang, G., Duan, L., and Kot, A.C., NTU RGB+D 120: A Large-Scale Benchmark for 3D Human Activity Understanding; *TPAMI Oct. 2020* 2684-2701
- Liu, L.**, see Chen, Y., *TPAMI July 2020* 1654-1669
- Liu, L.**, see Liu, X., *TPAMI June 2020* 1303-1316
- Liu, L.**, see Yu, K., *TPAMI Sept. 2020* 2240-2256
- Liu, M.**, see Sun, D., *TPAMI June 2020* 1408-1423
- Liu, M.**, see Lian, C., *TPAMI April 2020* 880-893
- Liu, R.**, Cheng, S., He, Y., Fan, X., Lin, Z., and Luo, Z., On the Convergence of Learning-Based Iterative Methods for Nonconvex Inverse Problems; *TPAMI Dec. 2020* 3027-3039
- Liu, T.**, see Liu, X., *TPAMI May 2020* 1191-1204
- Liu, T.**, see Liu, X., *TPAMI June 2020* 1303-1316
- Liu, W.**, see Tang, P., *TPAMI Jan. 2020* 176-191
- Liu, W.**, see Yang, Z., *TPAMI May 2020* 1243-1256
- Liu, W.**, see Tang, P., *TPAMI May 2020* 1272-1278
- Liu, W.**, see Luo, W., *TPAMI June 2020* 1317-1332
- Liu, W.**, see Lu, C., *TPAMI April 2020* 925-938
- Liu, W.**, see Ma, K., *TPAMI April 2020* 851-864
- Liu, W.**, see Zhang, W., *TPAMI Dec. 2020* 3088-3101
- Liu, X.**, see Liu, F., *TPAMI March 2020* 664-678
- Liu, X.**, Zhu, X., Li, M., Wang, L., Zhu, E., Liu, T., Kloft, M., Shen, D., Yin, J., and Gao, W., Multiple Kernelk-Means with Incomplete Kernels; *TPAMI May 2020* 1191-1204
- Liu, X.**, Wang, L., Zhu, X., Li, M., Zhu, E., Liu, T., Liu, L., Dou, Y., and Yin, J., Absent Multiple Kernel Learning Algorithms; *TPAMI June 2020* 1303-1316
- Liu, Y.**, Han, Y., Ye, Z., and Lai, Y., Ranking-Preserving Cross-Source Learning for Image Retargeting Quality Assessment; *TPAMI July 2020* 1798-1805
- Liu, Y.**, Liao, S., Jiang, S., Ding, L., Lin, H., and Wang, W., Fast Cross-Validation for Kernel-Based Algorithms; *TPAMI May 2020* 1083-1096
- Liu, Y.**, see Xiao, H., *TPAMI May 2020* 1205-1217
- Liu, Y.**, see Yu, T., *TPAMI Oct. 2020* 2523-2539
- Liu, Y.**, see Xu, L., *TPAMI Oct. 2020* 2508-2522
- Liu, Z.**, see Shen, Z., *TPAMI Feb. 2020* 398-412
- Liu, Z.**, see Yang, X., *TPAMI Aug. 2020* 1809-1822
- Loffeld, O.**, see Bhandari, A., *TPAMI July 2020* 1630-1641
- Lopes, L.S.**, see Kasaei, S.H., *TPAMI Oct. 2020* 2567-2580
- Lord, N.A.**, see Cavallari, T., *TPAMI Oct. 2020* 2465-2477
- Loy, C.C.**, see Huang, C., *TPAMI Nov. 2020* 2781-2794
- Lu, C.**, Feng, J., Chen, Y., Liu, W., Lin, Z., and Yan, S., Tensor Robust Principal Component Analysis with a New Tensor Nuclear Norm; *TPAMI April 2020* 925-938
- Lu, H.**, see Zhao, W., *TPAMI Aug. 2020* 1884-1897
- Lu, J.**, see Liong, V.E., *TPAMI March 2020* 580-595
- Lu, J.**, see Liu, H., *TPAMI March 2020* 679-693
- Lu, K.**, see Szeto, R., *TPAMI May 2020* 1053-1068
- Lu, Y.**, see Xie, J., *TPAMI Jan. 2020* 27-45

Luo, C., Yang, Z., Wang, P., Wang, Y., Xu, W., Nevatia, R., and Yuille, A., Every Pixel Counts ++: Joint Learning of Geometry and Motion with 3D Holistic Understanding; *TPAMI Oct. 2020 2624-2641*

Luo, G., Zhu, Y., Weng, Z., and Li, Z., A Disocclusion Inpainting Framework for Depth-Based View Synthesis; *TPAMI June 2020 1289-1302*

Luo, J., see Ji, R., *TPAMI Oct. 2020 2410-2422*

Luo, W., Sun, P., Zhong, F., Liu, W., Zhang, T., and Wang, Y., End-to-End Active Object Tracking and Its Real-World Deployment via Reinforcement Learning; *TPAMI June 2020 1317-1332*

Luo, Z., see Zhang, R., *TPAMI Feb. 2020 291-303*

Luo, Z., see Liu, R., *TPAMI Dec. 2020 3027-3039*

Lv, J., see Yang, Z., *TPAMI May 2020 1243-1256*

Lyu, X., Sun, W.W., Wang, Z., Liu, H., Yang, J., and Cheng, G., Tensor Graphical Model: Non-Convex Optimization and Statistical Inference; *TPAMI Aug. 2020 2024-2037*

Lyzinski, V., see Sussman, D.L., *TPAMI Nov. 2020 2887-2900*

M

Ma, J., see Guo, X., *TPAMI March 2020 694-707*

Ma, J., see Zhao, J., *TPAMI May 2020 1176-1190*

Ma, K., Duanmu, Z., Wang, Z., Wu, Q., Liu, W., Yong, H., Li, H., and Zhang, L., Group Maximum Differentiation Competition: Model Comparison with Few Samples; *TPAMI April 2020 851-864*

Ma, L., see Zhang, W., *TPAMI Dec. 2020 3088-3101*

Madadi, M., see Escalera, S., *TPAMI May 2020 1021-1024*

Magerand, L., and Del Bue, A., Revisiting Projective Structure from Motion: A Robust and Efficient Incremental Solution; *TPAMI Feb. 2020 430-443*

Maier, A., see Kohler, T., *TPAMI Nov. 2020 2944-2959*

Malik, J., see Hane, C., *TPAMI June 2020 1348-1361*

Malkov, Y.A., and Yashunin, D.A., Efficient and Robust Approximate Nearest Neighbor Search Using Hierarchical Navigable Small World Graphs; *TPAMI April 2020 824-836*

Marsden, P.K., see Clough, J.R., *TPAMI April 2020 988-997*

Martel, J.N.P., Muller, L.K., Carey, S.J., Dudek, P., and Wetzstein, G., Neural Sensors: Learning Pixel Exposures for HDR Imaging and Video Compressive Sensing With Programmable Sensors; *TPAMI July 2020 1642-1653*

Martino, J.M.D., Suzacq, F., Delbraccio, M., Qiu, Q., and Sapiro, G., Differential 3D Facial Recognition: Adding 3D to Your State-of-the-Art 2D Method; *TPAMI July 2020 1582-1593*

Matas, J., see Balntas, V., *TPAMI Nov. 2020 2825-2841*

Matsukawa, T., Okabe, T., Suzuki, E., and Sato, Y., Hierarchical Gaussian Descriptors with Application to Person Re-Identification; *TPAMI Sept. 2020 2179-2194*

Matsushita, Y., see Mo, Z., *TPAMI July 2020 1670-1684*

Matsushita, Y., see Cho, D., *TPAMI Jan. 2020 232-245*

Mattocchia, S., see Tonioni, A., *TPAMI Oct. 2020 2396-2409*

Maybank, S., see Gao, J., *TPAMI April 2020 939-955*

McNicholas, P.D., see Wei, Y., *TPAMI March 2020 610-621*

Melacci, S., see Zanca, D., *TPAMI Dec. 2020 2983-2995*

Menashe, O., see Zabatani, A., *TPAMI Oct. 2020 2333-2345*

Meng, G., see Chang, J., *TPAMI April 2020 809-823*

Meng, G., Pan, C., Xiang, S., and Wu, Y., Baselines Extraction from Curved Document Images via Slope Fields Recovery; *TPAMI April 2020 793-808*

Meng, G., see Chang, J., *TPAMI Nov. 2020 2874-2886*

Meng, J., see Hong, W., *TPAMI July 2020 1783-1790*

Mesejo, P., see Lathuiliere, S., *TPAMI Sept. 2020 2065-2081*

Metaxas, D.N., see Tang, Z., *TPAMI Aug. 2020 2038-2050*

Mian, A., see Akhtar, N., *TPAMI Jan. 2020 100-113*

Mikolajczyk, K., see Balntas, V., *TPAMI Nov. 2020 2825-2841*

Miksik, O., see Perez-Rua, J., *TPAMI Aug. 2020 1996-2010*

Miksik, O., see Arnab, A., *TPAMI Dec. 2020 3040-3053*

Milan, A., see Lin, G., *TPAMI May 2020 1228-1242*

Min, D., see Kim, S., *TPAMI Jan. 2020 59-73*

Minoh, M., see Fujimura, Y., *TPAMI March 2020 708-719*

Mittal, T., see Sarvadevabhatla, R.K., *TPAMI Jan. 2020 221-231*

+ Check author entry for coauthors

Mo, Z., Shi, B., Yeung, S., and Matsushita, Y., Ambiguity-Free Radiometric Calibration for Internet Photo Collections; *TPAMI July 2020 1670-1684*

Monfort, M., Andonian, A., Zhou, B., Ramakrishnan, K., Bargal, S.A., Yan, T., Brown, L., Fan, Q., Gutfreund, D., Vondrick, C., and Oliva, A., Moments in Time Dataset: One Million Videos for Event Understanding; *TPAMI Feb. 2020 502-508*

Moreiro, P., see Garcia, N.C., *TPAMI Oct. 2020 2581-2593*

Mori, G., see Tung, F., *TPAMI March 2020 568-579*

Mori, G., see Nauata, N., *TPAMI May 2020 1257-1271*

Moshe, S.B., see Zabatani, A., *TPAMI Oct. 2020 2333-2345*

Mosinska, A., Kozinski, M., and Fua, P., Joint Segmentation and Path Classification of Curvilinear Structures; *TPAMI June 2020 1515-1521*

Motahari, S.A., see Tavassolipour, M., *TPAMI Aug. 2020 1928-1941*

Mourikis, A.I., see Hasan, M., *TPAMI March 2020 554-567*

Muller, L.K., see Martel, J.N.P., *TPAMI July 2020 1642-1653*

Murino, V., see Garcia, N.C., *TPAMI Oct. 2020 2581-2593*

N

Naderi, F., see Kohler, T., *TPAMI Nov. 2020 2944-2959*

Nadler, B., see Ofir, N., *TPAMI April 2020 894-908*

Nakamura, S., see Hua, Y., *TPAMI July 2020 1606-1617*

Nanda, V., see Chevrete, I., *TPAMI Jan. 2020 192-202*

Nascimento, J.C., and Carneiro, G., One Shot Segmentation: Unifying Rigid Detection and Non-Rigid Segmentation Using Elastic Regularization; *TPAMI Dec. 2020 3054-3070*

Nauata, N., Hu, H., Zhou, G., Deng, Z., Liao, Z., and Mori, G., Structured Label Inference for Visual Understanding; *TPAMI May 2020 1257-1271*

Navab, N., see Birdal, T., *TPAMI June 2020 1333-1347*

Nehorai, A., see Zhang, Z., *TPAMI July 2020 1741-1754*

Nevatia, R., see Luo, C., *TPAMI Oct. 2020 2624-2641*

Ney, H., see Koller, O., *TPAMI Sept. 2020 2306-2320*

Nie, F., see Wang, Q., *TPAMI Jan. 2020 46-58*

Nishino, K., see Schwartz, G., *TPAMI Aug. 2020 1981-1995*

Nishino, K., see Bennamoun, M., *TPAMI Oct. 2020 2329-2332*

Nothwang, W.D., see Shamwell, E.J., *TPAMI Oct. 2020 2478-2493*

Novotny, D., Larlus, D., and Vedaldi, A., Capturing the Geometry of Object Categories from Video Supervision; *TPAMI Feb. 2020 261-275*

O

Oberhauser, H., see Chevrete, I., *TPAMI Jan. 2020 192-202*

Oberweger, M., Wohlhart, P., and Lepetit, V., Generalized Feedback Loop for Joint Hand-Object Pose Estimation; *TPAMI Aug. 2020 1898-1912*

Ofir, N., Galun, M., Alpert, S., Brandt, A., Nadler, B., and Basri, R., On Detection of Faint Edges in Noisy Images; *TPAMI April 2020 894-908*

Oh, S.J., Benenson, R., Fritz, M., and Schiele, B., Person Recognition in Personal Photo Collections; *TPAMI Jan. 2020 203-220*

Oh, T., see Joo, K., *TPAMI Oct. 2020 2656-2669*

Okabe, T., see Matsukawa, T., *TPAMI Sept. 2020 2179-2194*

Oliva, A., see Monfort, M., *TPAMI Feb. 2020 502-508*

Opitz, M., Waltner, G., Possegger, H., and Bischof, H., Deep Metric Learning with BIER: Boosting Independent Embeddings Robustly; *TPAMI Feb. 2020 276-290*

Orchard, G., see Ramesh, B., *TPAMI Nov. 2020 2767-2780*

P

Pajdla, T., see Albl, C., *TPAMI June 2020 1439-1452*

Paliwal, A., and Kalantari, N.K., Deep Slow Motion Video Reconstruction With Hybrid Imaging System; *TPAMI July 2020 1557-1569*

Pan, C., see Chang, J., *TPAMI April 2020 809-823*

Pan, C., see Meng, G., *TPAMI April 2020 793-808*

Pan, C., see Chang, J., *TPAMI Nov. 2020 2874-2886*

Pan, Z., see Zuo, X., *TPAMI Oct. 2020 2720-2734*

Panareda Busto, P., Iqbal, A., and Gall, J., Open Set Domain Adaptation for Image and Action Recognition; *TPAMI Feb. 2020 413-429*

Panetta, K., Wan, Q., Agaian, S., Rajeev, S., Kamath, S., Rajendran, R., Rao, S.P., Kaszowska, A., Taylor, H.A., Samani, A., and Yuan, X., A Comprehensive Database for Benchmarking Imaging Systems; *TPAMI March 2020 509-520*

Parashar, S., Pizarro, D., and Bartoli, A., Local Deformable 3D Reconstruction with Cartan's Connections; *TPAMI Dec. 2020 3011-3026*

Paredes-Valles, F., Scheper, K.Y.W., and de Croon, G.C.H.E., Unsupervised Learning of a Hierarchical Spiking Neural Network for Optical Flow Estimation: From Events to Global Motion Perception; *TPAMI Aug. 2020 2051-2064*

Park, H.S., and Shi, J., Force from Motion: Decoding Control Force of Activity in a First-Person Video; *TPAMI March 2020 622-635*

Park, Y., see Sussman, D.L., *TPAMI Nov. 2020 2887-2900*

Parkhi, O.M., Rahtu, E., Cao, Q., and Zisserman, A., Automated Video Face Labelling for Films and TV Material; *TPAMI April 2020 780-792*

Paul, S., see Hasan, M., *TPAMI March 2020 554-567*

Pelillo, M., see Wang, F., *TPAMI Nov. 2020 2737-2754*

Peng, K., see Li, K., *TPAMI Dec. 2020 2996-3010*

Peng, S., see Haefner, B., *TPAMI Oct. 2020 2453-2464*

Peng, X., see Tang, Z., *TPAMI Aug. 2020 2038-2050*

Percannella, G., see Carletti, V., *TPAMI Sept. 2020 2113-2132*

Perez, M., see Liu, J., *TPAMI Oct. 2020 2684-2701*

Perez, P., see Tewari, A., *TPAMI Feb. 2020 357-370*

Perez, P., see Perez-Rua, J., *TPAMI Aug. 2020 1996-2010*

Perez-Rua, J., Miksik, O., Crivelli, T., Bouthemy, P., Torr, P.H.S., and Perez, P., ROAM: A Rich Object Appearance Model with Application to Rotoscoping; *TPAMI Aug. 2020 1996-2010*

Pernkopf, F., see Roth, W., *TPAMI Jan. 2020 246-252*

Peters, J., see Vinogradskaya, J., *TPAMI Jan. 2020 164-175*

Petersson, L., see Campbell, D., *TPAMI Feb. 2020 328-342*

Pilzer, A., Lathuiliere, S., Xu, D., Puscas, M.M., Ricci, E., and Sebe, N., Progressive Fusion for Unsupervised Binocular Depth Estimation Using Cycled Networks; *TPAMI Oct. 2020 2380-2395*

Pizarro, D., see Parashar, S., *TPAMI Dec. 2020 3011-3026*

Plamondon, R., see Ferrer, M.A., *TPAMI Jan. 2020 114-125*

Poggi, M., see Tonioni, A., *TPAMI Oct. 2020 2396-2409*

Pohl, K.M., see Adeli, E., *TPAMI July 2020 1713-1728*

Pollefeys, M., see Schops, T., *TPAMI Oct. 2020 2494-2507*

Polyak, A., Taigman, Y., and Wolf, L., Unsupervised Generation of Free-Form and Parameterized Avatars; *TPAMI Feb. 2020 444-459*

Pons-Moll, G., see Yu, T., *TPAMI Oct. 2020 2523-2539*

Porikli, F., see Yu, X., *TPAMI Nov. 2020 2926-2943*

Porikli, F., see Yu, X., *TPAMI Sept. 2020 2148-2164*

Possegger, H., see Opitz, M., *TPAMI Feb. 2020 276-290*

Poullis, C., Large-Scale Urban Reconstruction with Tensor Clustering and Global Boundary Refinement; *TPAMI May 2020 1132-1145*

Prayoonwong, A., see Chiu, C., *TPAMI Aug. 2020 1942-1956*

Priebe, C.E., see Sussman, D.L., *TPAMI Nov. 2020 2887-2900*

Prieto, C., see Clough, J.R., *TPAMI April 2020 988-997*

Principe, J.C., see Yu, S., *TPAMI Nov. 2020 2960-2966*

Prisacariu, V.A., see Cavallari, T., *TPAMI Oct. 2020 2465-2477*

Pujades, S., see Hesse, N., *TPAMI Oct. 2020 2540-2551*

Punnappurath, A., and Brown, M.S., Learning Raw Image Reconstruction-Aware Deep Image Compressors; *TPAMI April 2020 1013-1019*

Puscas, M.M., see Pilzer, A., *TPAMI Oct. 2020 2380-2395*

Q

Qi, G., see Ye, J., *TPAMI Jan. 2020 126-139*

Qian, C., see Wang, K., *TPAMI May 2020 1069-1082*

Qian, X., Fu, Y., Xiang, T., Jiang, Y., and Xue, X., Leader-Based Multi-Scale Attention Deep Architecture for Person Re-Identification; *TPAMI Feb. 2020 371-385*

Qiao, H., see Yang, X., *TPAMI Aug. 2020 1809-1822*

Qin, J., see Hu, X., *TPAMI Nov. 2020 2795-2808*

Qiu, Q., see Martino, J.M.D., *TPAMI July 2020 1582-1593*

Quan, L., see Zhang, R., *TPAMI Feb. 2020 291-303*

Que, Q., and Belkin, M., Back to the Future: Radial Basis Function Network Revisited; *TPAMI Aug. 2020 1856-1867*

Queau, Y., see Haefner, B., *TPAMI Oct. 2020 2453-2464*

R

Rahtu, E., see Parkhi, O.M., *TPAMI April 2020 780-792*

Rajeev, S., see Panetta, K., *TPAMI March 2020 509-520*

Rajendran, R., see Panetta, K., *TPAMI March 2020 509-520*

Ramakrishnan, K., see Monfort, M., *TPAMI Feb. 2020 502-508*

Ramesh, B., Yang, H., Orchard, G., Le Thi, N.A., Zhang, S., and Xiang, C., DART: Distribution Aware Retinal Transform for Event-Based Cameras; *TPAMI Nov. 2020 2767-2780*

Rao, S.P., see Panetta, K., *TPAMI March 2020 509-520*

Reader, A.J., see Clough, J.R., *TPAMI April 2020 988-997*

Recasens, A., see Kosti, R., *TPAMI Nov. 2020 2755-2766*

Reid, I., see Liao, Z., *TPAMI Jan. 2020 15-26*

Reid, I., see Lin, G., *TPAMI May 2020 1228-1242*

Ren, Z., and Sudderth, E.B., Clouds of Oriented Gradients for 3D Detection of Objects, Surfaces, and Indoor Scene Layouts; *TPAMI Oct. 2020 2670-2683*

Rhinehart, N., and Kitani, K.M., First-Person Activity Forecasting from Video with Online Inverse Reinforcement Learning; *TPAMI Feb. 2020 304-317*

Ricci, E., see Pilzer, A., *TPAMI Oct. 2020 2380-2395*

Richard, A., see Kuehne, H., *TPAMI April 2020 765-779*

Riess, C., see Kohler, T., *TPAMI Nov. 2020 2944-2959*

Robinson, J.T., see Boominathan, V., *TPAMI July 2020 1618-1629*

Rodner, E., see Simon, M., *TPAMI March 2020 749-763*

Rogez, G., Weinzaepfel, P., and Schmid, C., LCR-Net++: Multi-Person 2D and 3D Pose Detection in Natural Images; *TPAMI May 2020 1146-1161*

Rosenfeld, A., and Tsotsos, J.K., Incremental Learning Through Deep Adaptation; *TPAMI March 2020 651-663*

Rosin, P.L., see Zunic, J., *TPAMI June 2020 1394-1407*

Rosin, P.L., see Yang, J., *TPAMI June 2020 1537-1544*

Roth, W., and Pernkopf, F., Bayesian Neural Networks with Weight Sharing Using Dirichlet Processes; *TPAMI Jan. 2020 246-252*

Roy-Chowdhury, A.K., see Hasan, M., *TPAMI March 2020 554-567*

Rueda-Chacon, H., Florez-Ospina, J.F., Lau, D.L., and Arce, G.R., Snapshot Compressive ToF+Spectral Imaging via Optimized Color-Coded Apertures; *TPAMI Oct. 2020 2346-2360*

S

Saberian, M., see Cai, Z., *TPAMI Sept. 2020 2195-2211*

Samani, A., see Panetta, K., *TPAMI March 2020 509-520*

Sankaranarayanan, A.C., see Hua, Y., *TPAMI July 2020 1606-1617*

Sapiro, G., see Martino, J.M.D., *TPAMI July 2020 1582-1593*

Sarkar, S., and Ghosh, A.K., On Perfect Clustering of High Dimension, Low Sample Size Data; *TPAMI Sept. 2020 2257-2272*

Sarvadevabhatla, R.K., Surya, S., Mittal, T., and Babu, R.V., Pictionary-Style Word Guessing on Hand-Drawn Object Sketches: Dataset, Analysis and Deep Network Models; *TPAMI Jan. 2020 221-231*

Sato, Y., see Matsukawa, T., *TPAMI Sept. 2020 2179-2194*

Sattler, T., see Schops, T., *TPAMI Oct. 2020 2494-2507*

Scheper, K.Y.W., see Paredes-Valles, F., *TPAMI Aug. 2020 2051-2064*

Schiele, B., see Oh, S.J., *TPAMI Jan. 2020 203-220*

Schiele, B., see Keuper, M., *TPAMI Jan. 2020 140-153*

Schmid, C., see Rogez, G., *TPAMI May 2020 1146-1161*

Scholefield, A., Ghasemi, A., and Vetterli, M., Bound and Conquer: Improving Triangulation by Enforcing Consistency; *TPAMI Sept. 2020 2321-2326*

Schops, T., Sattler, T., and Pollefeys, M., SurfElMeshing: Online SurfEl-Based Mesh Reconstruction; *TPAMI Oct. 2020 2494-2507*

Schroeder, A.S., see Hesse, N., *TPAMI Oct. 2020 2540-2551*

Schwartz, G., and Nishino, K., Recognizing Material Properties from Images; *TPAMI Aug. 2020 1981-1995*

Sebe, N., see Pilzer, A., *TPAMI Oct. 2020 2380-2395*

Seddik, M., see Tamaazousti, Y., *TPAMI Sept. 2020 2212-2224*

Shah, M., see Kalayeh, M.M., *TPAMI June 2020 1483-1500*

- Shahlaei, D.**, and Blanz, V., Hierarchical Bayesian Inverse Lighting of Portraits with a Virtual Light Stage; *TPAMI April 2020* 865-879
- Shahroudy, A.**, see Liu, J., *TPAMI Feb. 2020* 494-501
- Shahroudy, A.**, see Liu, J., *TPAMI June 2020* 1453-1467
- Shahroudy, A.**, see Liu, J., *TPAMI Oct. 2020* 2684-2701
- Shalmani, M.T.M.**, see Tavassolipour, M., *TPAMI Aug. 2020* 1928-1941
- Shamai, G.**, Zibulevsky, M., and Kimmel, R., Efficient Inter-Geodesic Distance Computation and Fast Classical Scaling; *TPAMI Jan. 2020* 74-85
- Shamwell, E.J.**, Lindgren, K., Leung, S., and Nothwang, W.D., Unsupervised Deep Visual-Inertial Odometry with Online Error Correction for RGB-D Imagery; *TPAMI Oct. 2020* 2478-2493
- Shen, C.**, see Chen, Y., *TPAMI July 2020* 1654-1669
- Shen, C.**, see Lin, G., *TPAMI May 2020* 1228-1242
- Shen, D.**, see Liu, X., *TPAMI May 2020* 1191-1204
- Shen, D.**, see Lian, C., *TPAMI April 2020* 880-893
- Shen, H.**, see Wei, X., *TPAMI Dec. 2020* 3119-3135
- Shen, H.T.**, see Gao, L., *TPAMI May 2020* 1112-1131
- Shen, H.T.**, see Zhang, D., *TPAMI Sept. 2020* 2287-2305
- Shen, J.**, see Wang, W., *TPAMI Aug. 2020* 1913-1927
- Shen, L.**, see Hu, J., *TPAMI Aug. 2020* 2011-2023
- Shen, T.**, see Zhang, R., *TPAMI Feb. 2020* 291-303
- Shen, W.**, see Tang, P., *TPAMI Jan. 2020* 176-191
- Shen, Z.**, Liu, Z., Li, J., Jiang, Y., Chen, Y., and Xue, X., Object Detection from Scratch with Deep Supervision; *TPAMI Feb. 2020* 398-412
- Sheng, H.**, see Wang, C., *TPAMI July 2020* 1570-1581
- Shi, B.**, see Mo, Z., *TPAMI July 2020* 1670-1684
- Shi, B.**, see Wan, R., *TPAMI Dec. 2020* 2969-2982
- Shi, J.**, see Park, H.S., *TPAMI March 2020* 622-635
- Shi, J.**, and Wang, Y., Hyperbolic Wasserstein Distance for Shape Indexing; *TPAMI June 2020* 1362-1376
- Shi, L.**, see Hemrit, G., *TPAMI May 2020* 1286-1287
- Shi, Y.**, Li, G., Cao, Q., Wang, K., and Lin, L., Face Hallucination by Attentive Sequence Optimization with Reinforcement Learning; *TPAMI Nov. 2020* 2809-2824
- Shiri, F.**, see Yu, X., *TPAMI Sept. 2020* 2148-2164
- Sigal, L.**, see Fu, Y., *TPAMI Dec. 2020* 3136-3152
- Silver, D.H.**, see Zabatabani, A., *TPAMI Oct. 2020* 2333-2345
- Simon, M.**, Rodner, E., Darrell, T., and Denzler, J., The Whole Is More Than Its Parts? From Explicit to Implicit Pose Normalization; *TPAMI March 2020* 749-763
- Sohn, K.**, see Kim, S., *TPAMI Jan. 2020* 59-73
- Song, J.**, see Gao, L., *TPAMI May 2020* 1112-1131
- Song, L.**, see He, R., *TPAMI May 2020* 1025-1037
- Sperling, E.**, see Zabatabani, A., *TPAMI Oct. 2020* 2333-2345
- Spigler, G.**, Denoising Autoencoders for Overgeneralization in Neural Networks; *TPAMI April 2020* 998-1004
- Stefano, L.D.**, see Cavallari, T., *TPAMI Oct. 2020* 2465-2477
- Stefano, L.D.**, see Tonioni, A., *TPAMI Oct. 2020* 2396-2409
- Sturm, P.**, see Birdal, T., *TPAMI June 2020* 1333-1347
- Su, B.**, and Wu, Y., Learning Low-Dimensional Temporal Representations with Latent Alignments; *TPAMI Nov. 2020* 2842-2857
- Su, J.**, see Zhang, B., *TPAMI Jan. 2020* 154-163
- Su, Z.**, see Xu, L., *TPAMI Oct. 2020* 2508-2522
- Sudderth, E.B.**, see Ren, Z., *TPAMI Oct. 2020* 2670-2683
- Sulam, J.**, Aberdam, A., Beck, A., and Elad, M., On Multi-Layer Basis Pursuit, Efficient Algorithms and Convolutional Neural Networks; *TPAMI Aug. 2020* 1968-1980
- Sun, C.**, see Liu, F., *TPAMI Feb. 2020* 460-474
- Sun, D.**, Yang, X., Liu, M., and Kautz, J., Models Matter, So Does Training: An Empirical Study of CNNs for Optical Flow Estimation; *TPAMI June 2020* 1408-1423
- Sun, G.**, see Hu, J., *TPAMI Aug. 2020* 2011-2023
- Sun, J.**, see Yang, Y., *TPAMI March 2020* 521-538
- Sun, P.**, see Luo, W., *TPAMI June 2020* 1317-1332
- Sun, W.W.**, see Lyu, X., *TPAMI Aug. 2020* 2024-2037
- Sun, X.**, see Szeto, R., *TPAMI May 2020* 1053-1068
- Sun, X.**, see Ji, R., *TPAMI Oct. 2020* 2410-2422
- Sun, Z.**, see He, R., *TPAMI May 2020* 1025-1037
- Sunkavalli, K.**, see Chakrabarti, A., *TPAMI July 2020* 1545-1546
- Surazhsky, V.**, see Zabatabani, A., *TPAMI Oct. 2020* 2333-2345
- Surya, S.**, see Sarvadevabhatla, R.K., *TPAMI Jan. 2020* 221-231
- Sussman, D.L.**, Park, Y., Priebe, C.E., and Lyzinski, V., Matched Filters for Noisy Induced Subgraph Detection; *TPAMI Nov. 2020* 2887-2900
- Suzacq, F.**, see Martino, J.M.D., *TPAMI July 2020* 1582-1593
- Suzuki, E.**, see Matsukawa, T., *TPAMI Sept. 2020* 2179-2194
- Szeto, R.**, Sun, X., Lu, K., and Corso, J.J., A Temporally-Aware Interpolation Network for Video Frame Inpainting; *TPAMI May 2020* 1053-1068

T

- Tahvildari, L.**, see Eghbali, S., *TPAMI July 2020* 1729-1740
- Tai, Y.**, see Cho, D., *TPAMI Jan. 2020* 232-245
- Taigman, Y.**, see Polyak, A., *TPAMI Feb. 2020* 444-459
- Tamaazousti, M.**, see Tamaazousti, Y., *TPAMI Sept. 2020* 2212-2224
- Tamaazousti, Y.**, Le Borgne, H., Hudelot, C., Seddik, M., and Tamaazousti, M., Learning More Universal Representations for Transfer-Learning; *TPAMI Sept. 2020* 2212-2224
- Tan, A.**, see Wan, R., *TPAMI Dec. 2020* 2969-2982
- Tan, R.T.**, see Yang, W., *TPAMI June 2020* 1377-1393
- Tan, T.**, see He, R., *TPAMI May 2020* 1025-1037
- Tan, Y.**, see Liong, V.E., *TPAMI March 2020* 580-595
- Tan, Y.**, see Hu, P., *TPAMI Aug. 2020* 1957-1967
- Tanaka, T.**, see Yamasaki, R., *TPAMI Sept. 2020* 2273-2286
- Tanfous, A.B.**, Drira, H., and Amor, B.B., Sparse Coding of Shape Trajectories for Facial Expression and Action Recognition; *TPAMI Oct. 2020* 2594-2607
- Tang, P.**, Wang, X., Bai, S., Shen, W., Bai, X., Liu, W., and Yuille, A., PCL: Proposal Cluster Learning for Weakly Supervised Object Detection; *TPAMI Jan. 2020* 176-191
- Tang, P.**, Wang, C., Wang, X., Liu, W., Zeng, W., and Wang, J., Object Detection in Videos by High Quality Object Linking; *TPAMI May 2020* 1272-1278
- Tang, S.**, see Keuper, M., *TPAMI Jan. 2020* 140-153
- Tang, S.**, see Zhang, R., *TPAMI April 2020* 909-924
- Tang, X.**, see Hong, W., *TPAMI July 2020* 1783-1790
- Tang, X.**, see Huang, C., *TPAMI Nov. 2020* 2781-2794
- Tang, Y.**, see Wei, Y., *TPAMI March 2020* 610-621
- Tang, Z.**, Peng, X., Li, K., and Metaxas, D.N., Towards Efficient U-Nets: A Coupled and Quantized Approach; *TPAMI Aug. 2020* 2038-2050
- Tao, D.**, see Zhang, C., *TPAMI Jan. 2020* 86-99
- Tao, Z.**, see Kong, Y., *TPAMI March 2020* 539-553
- Tavassolipour, M.**, Motahari, S.A., and Shalmani, M.T.M., Learning of Gaussian Processes in Distributed and Communication Limited Systems; *TPAMI Aug. 2020* 1928-1941
- Taylor, H.A.**, see Panetta, K., *TPAMI March 2020* 509-520
- Tewari, A.**, Zollhofer, M., Bernard, F., Garrido, P., Kim, H., Perez, P., and Theobalt, C., High-Fidelity Monocular Face Reconstruction Based on an Unsupervised Model-Based Face Autoencoder; *TPAMI Feb. 2020* 357-370
- Theobalt, C.**, see Tewari, A., *TPAMI Feb. 2020* 357-370
- Tian, X.**, see Chen, C., *TPAMI Dec. 2020* 3071-3087
- Timofte, R.**, see Gu, S., *TPAMI Oct. 2020* 2437-2452
- Tombari, F.**, see Bennamoun, M., *TPAMI Oct. 2020* 2329-2332
- Tome, A.M.**, see Kasaei, S.H., *TPAMI Oct. 2020* 2567-2580
- Tonioni, A.**, Poggi, M., Mattoccia, S., and Stefano, L.D., Unsupervised Domain Adaptation for Depth Prediction from Images; *TPAMI Oct. 2020* 2396-2409
- Torr, P.H.S.**, see Perez-Rua, J., *TPAMI Aug. 2020* 1996-2010
- Torr, P.H.S.**, see Cavallari, T., *TPAMI Oct. 2020* 2465-2477
- Torr, P.H.S.**, see Arnab, A., *TPAMI Dec. 2020* 3040-3053
- Treibitz, T.**, see Berman, D., *TPAMI March 2020* 720-734
- Tsotsos, J.K.**, see Rosenfeld, A., *TPAMI March 2020* 651-663
- Tulsiani, S.**, see Hane, C., *TPAMI June 2020* 1348-1361
- Tung, F.**, and Mori, G., Deep Neural Network Compression by In-Parallel Pruning-Quantization; *TPAMI March 2020* 568-579
- Tuytelaars, T.**, see Balntas, V., *TPAMI Nov. 2020* 2825-2841
- Tzimiropoulos, G.**, see Bulat, A., *TPAMI Feb. 2020* 343-356

V

Valentin, J., see Cavallari, T., *TPAMI Oct. 2020 2465-2477*
Van Gool, L., see Gu, S., *TPAMI Oct. 2020 2437-2452*
Vasconcelos, N., see Dixit, M., *TPAMI Dec. 2020 3102-3118*
Vasconcelos, N., see Cai, Z., *TPAMI Sept. 2020 2195-2211*
Vedaldi, A., see Novotny, D., *TPAMI Feb. 2020 261-275*
Vedaldi, A., see Balntas, V., *TPAMI Nov. 2020 2825-2841*
Veeraraghavan, A., see Boominathan, V., *TPAMI July 2020 1618-1629*
Veksler, O., Efficient Graph Cut Optimization for Full CRFs with Quantized Edges; *TPAMI April 2020 1005-1012*
Vento, M., see Carletti, V., *TPAMI Sept. 2020 2113-2132*
Verma, A., see Haefner, B., *TPAMI Oct. 2020 2453-2464*
Vetterli, M., see Scholefield, A., *TPAMI Sept. 2020 2321-2326*
Vezzani, R., see Borghi, G., *TPAMI March 2020 596-609*
Vidal, R., see Haeffele, B.D., *TPAMI June 2020 1468-1482*
Vinogradskaya, J., Bischoff, B., Achterhold, J., Koller, T., and Peters, J., Numerical Quadrature for Probabilistic Policy Search; *TPAMI Jan. 2020 164-175*
Vondrick, C., see Monfort, M., *TPAMI Feb. 2020 502-508*

W

Waltner, G., see Opitz, M., *TPAMI Feb. 2020 276-290*
Wan, J., see Escalera, S., *TPAMI May 2020 1021-1024*
Wan, Q., see Panetta, K., *TPAMI March 2020 509-520*
Wan, R., Shi, B., Li, H., Duan, L., Tan, A., and Kot, A.C., CoRRN: Cooperative Reflection Removal Network; *TPAMI Dec. 2020 2969-2982*
Wang, B., see Zhang, W., *TPAMI Dec. 2020 3088-3101*
Wang, C., Wu, M., Wang, Z., Wang, L., Sheng, H., and Yu, J., Neural Opacity Point Cloud; *TPAMI July 2020 1570-1581*
Wang, C., see Tang, P., *TPAMI May 2020 1272-1278*
Wang, D., see Zhao, W., *TPAMI Aug. 2020 1884-1897*
Wang, F., Xue, N., Zhang, Y., Xia, G., and Pelillo, M., A Functional Representation for Graph Matching; *TPAMI Nov. 2020 2737-2754*
Wang, G., see Liu, J., *TPAMI Feb. 2020 494-501*
Wang, G., see Liu, J., *TPAMI June 2020 1453-1467*
Wang, G., see Hu, P., *TPAMI Aug. 2020 1957-1967*
Wang, G., see Liu, J., *TPAMI Oct. 2020 2684-2701*
Wang, J., see Tang, P., *TPAMI May 2020 1272-1278*
Wang, K., Lin, L., Jiang, C., Qian, C., and Wei, P., 3D Human Pose Machines with Self-Supervised Learning; *TPAMI May 2020 1069-1082*
Wang, K., see Yang, J., *TPAMI June 2020 1537-1544*
Wang, K., see Shi, Y., *TPAMI Nov. 2020 2809-2824*
Wang, L., see Wang, C., *TPAMI July 2020 1570-1581*
Wang, L., see Huang, Y., *TPAMI March 2020 636-650*
Wang, L., see Liu, X., *TPAMI May 2020 1191-1204*
Wang, L., see Liu, X., *TPAMI June 2020 1303-1316*
Wang, L., see Chang, J., *TPAMI April 2020 809-823*
Wang, L., see Chang, J., *TPAMI Nov. 2020 2874-2886*
Wang, L., see Zhang, D., *TPAMI Sept. 2020 2287-2305*
Wang, M., see Zhang, Z., *TPAMI July 2020 1741-1754*
Wang, M., see Fu, Y., *TPAMI Dec. 2020 3136-3152*
Wang, P., see Luo, C., *TPAMI Oct. 2020 2624-2641*
Wang, P., see Huang, X., *TPAMI Oct. 2020 2702-2719*
Wang, P., see Cheng, X., *TPAMI Oct. 2020 2361-2379*
Wang, Q., Chen, M., Nie, F., and Li, X., Detecting Coherent Groups in Crowd Scenes by Multiview Clustering; *TPAMI Jan. 2020 46-58*
Wang, Q., see Gao, J., *TPAMI April 2020 939-955*
Wang, S., see Li, D., *TPAMI June 2020 1424-1438*
Wang, S., see Zuo, X., *TPAMI Oct. 2020 2720-2734*
Wang, S., Zheng, Z., Yin, S., Yang, J., and Ji, Q., A Novel Dynamic Model Capturing Spatial and Temporal Patterns for Facial Expression Analysis; *TPAMI Sept. 2020 2082-2095*
Wang, W., see Huang, Y., *TPAMI March 2020 636-650*
Wang, W., see Liu, Y., *TPAMI May 2020 1083-1096*
Wang, W., Shen, J., Dong, X., Borji, A., and Yang, R., Inferring Salient Objects from Human Fixations; *TPAMI Aug. 2020 1913-1927*

Wang, X., see Tang, P., *TPAMI Jan. 2020 176-191*
Wang, X., see Tang, P., *TPAMI May 2020 1272-1278*
Wang, X., see Zou, D., *TPAMI June 2020 1501-1514*
Wang, X., see Fu, Y., *TPAMI Dec. 2020 3136-3152*
Wang, Y., see Luo, W., *TPAMI June 2020 1317-1332*
Wang, Y., see Shi, J., *TPAMI June 2020 1362-1376*
Wang, Y., see Dong, M., *TPAMI June 2020 1522-1529*
Wang, Y., see Luo, C., *TPAMI Oct. 2020 2624-2641*
Wang, Y., see Ji, R., *TPAMI Oct. 2020 2410-2422*
Wang, Z., see Wang, C., *TPAMI July 2020 1570-1581*
Wang, Z., see Gao, H., *TPAMI May 2020 1218-1227*
Wang, Z., see Lyu, X., *TPAMI Aug. 2020 2024-2037*
Wang, Z., see Ma, K., *TPAMI April 2020 851-864*
Wei, P., see Wang, K., *TPAMI May 2020 1069-1082*
Wei, X., see Chen, Y., *TPAMI July 2020 1654-1669*
Wei, X., Shen, H., and Kleinsteuber, M., Trace Quotient with Sparsity Priors for Learning Low Dimensional Image Representations; *TPAMI Dec. 2020 3119-3135*
Wei, Y., Tang, Y., and McNicholas, P.D., Flexible High-Dimensional Unsupervised Learning with Missing Data; *TPAMI March 2020 610-621*
Weinzaepfel, P., see Rogez, G., *TPAMI May 2020 1146-1161*
Weng, Z., see Luo, G., *TPAMI June 2020 1289-1302*
Wetzstein, G., see Martel, J.N.P., *TPAMI July 2020 1642-1653*
Wohlhart, P., see Oberweger, M., *TPAMI Aug. 2020 1898-1912*
Wolf, L., see Polyak, A., *TPAMI Feb. 2020 444-459*
Woo, S., see Kim, D., *TPAMI May 2020 1038-1052*
Wu, A., see Yu, H., *TPAMI April 2020 956-973*
Wu, E., see Hu, J., *TPAMI Aug. 2020 2011-2023*
Wu, F., see Chen, C., *TPAMI Dec. 2020 3071-3087*
Wu, M., see Wang, C., *TPAMI July 2020 1570-1581*
Wu, Q., see Huang, Y., *TPAMI March 2020 636-650*
Wu, Q., see Ma, K., *TPAMI April 2020 851-864*
Wu, Q.M.J., see Yang, Y., *TPAMI Nov. 2020 2912-2925*
Wu, S., see Liu, H., *TPAMI March 2020 679-693*
Wu, Y., see Ji, R., *TPAMI Oct. 2020 2410-2422*
Wu, Y., see Meng, G., *TPAMI April 2020 793-808*
Wu, Y., see Su, B., *TPAMI Nov. 2020 2842-2857*
Wu, Y., see Zhou, J., *TPAMI Nov. 2020 2858-2873*
Wu, Y.N., see Xie, J., *TPAMI Jan. 2020 27-45*
Wu, Z., see Li, K., *TPAMI Dec. 2020 2996-3010*

X

Xia, G., see Wang, F., *TPAMI Nov. 2020 2737-2754*
Xiang, C., see Ramesh, B., *TPAMI Nov. 2020 2767-2780*
Xiang, S., see Chang, J., *TPAMI April 2020 809-823*
Xiang, S., see Meng, G., *TPAMI April 2020 793-808*
Xiang, S., see Chang, J., *TPAMI Nov. 2020 2874-2886*
Xiang, T., see Qian, X., *TPAMI Feb. 2020 371-385*
Xiang, T., see Liu, F., *TPAMI Feb. 2020 460-474*
Xiao, H., Kang, B., Liu, Y., Zhang, M., and Feng, J., Online Meta Adaptation for Fast Video Object Segmentation; *TPAMI May 2020 1205-1217*
Xie, J., Lu, Y., Gao, R., Zhu, S., and Wu, Y.N., Cooperative Training of Descriptor and Generator Networks; *TPAMI Jan. 2020 27-45*
Xie, Y., see Zhang, C., *TPAMI Jan. 2020 86-99*
Xing, J., see Gao, J., *TPAMI April 2020 939-955*
Xiong, D., see Zhang, B., *TPAMI Jan. 2020 154-163*
Xiong, Z., see Chen, C., *TPAMI Dec. 2020 3071-3087*
Xu, C., see Zhang, Z., *TPAMI Oct. 2020 2608-2623*
Xu, D., see Zhang, D., *TPAMI July 2020 1755-1769*
Xu, D., see Zhang, C., *TPAMI Jan. 2020 86-99*
Xu, D., see Zhang, D., *TPAMI Feb. 2020 475-489*
Xu, D., see Pilzer, A., *TPAMI Oct. 2020 2380-2395*
Xu, L., Su, Z., Han, L., Yu, T., Liu, Y., and Fang, L., UnstructuredFusion: Real-time 4D Geometry and Texture Reconstruction Using Commercial RGBD Cameras; *TPAMI Oct. 2020 2508-2522*
Xu, W., see Luo, C., *TPAMI Oct. 2020 2624-2641*

Xu, Z., see Yang, Y., *TPAMI March 2020* 521-538
Xue, J., see Dong, M., *TPAMI June 2020* 1522-1529
Xue, N., see Wang, F., *TPAMI Nov. 2020* 2737-2754
Xue, X., see Shen, Z., *TPAMI Feb. 2020* 398-412
Xue, X., see Qian, X., *TPAMI Feb. 2020* 371-385
Xue, X., see Fu, Y., *TPAMI Dec. 2020* 3136-3152

Y

Yamasaki, R., and Tanaka, T., Properties of Mean Shift; *TPAMI Sept. 2020* 2273-2286
Yan, S., see Yang, W., *TPAMI June 2020* 1377-1393
Yan, S., see Lu, C., *TPAMI April 2020* 925-938
Yan, S., see Zhang, R., *TPAMI April 2020* 909-924
Yan, T., see Monfort, M., *TPAMI Feb. 2020* 502-508
Yang, H., see Ramesh, B., *TPAMI Nov. 2020* 2767-2780
Yang, J., see Chen, Y., *TPAMI July 2020* 1654-1669
Yang, J., Liang, J., Wang, K., Rosin, P.L., and Yang, M., Subspace Clustering via Good Neighbors; *TPAMI June 2020* 1537-1544
Yang, J., see Lyu, X., *TPAMI Aug. 2020* 2024-2037
Yang, J., see Zhang, Z., *TPAMI Oct. 2020* 2608-2623
Yang, J., see Wang, S., *TPAMI Sept. 2020* 2082-2095
Yang, L., see Zhang, D., *TPAMI Feb. 2020* 475-489
Yang, M., see Yang, J., *TPAMI June 2020* 1537-1544
Yang, M., see Li, D., *TPAMI June 2020* 1424-1438
Yang, R., see Wang, W., *TPAMI Aug. 2020* 1913-1927
Yang, R., see Huang, X., *TPAMI Oct. 2020* 2702-2719
Yang, R., see Zuo, X., *TPAMI Oct. 2020* 2720-2734
Yang, R., see Cheng, X., *TPAMI Oct. 2020* 2361-2379
Yang, W., see Liu, F., *TPAMI Feb. 2020* 460-474
Yang, W., Tan, R.T., Feng, J., Guo, Z., Yan, S., and Liu, J., Joint Rain Detection and Removal from a Single Image with Contextualized Deep Networks; *TPAMI June 2020* 1377-1393
Yang, X., see Sun, D., *TPAMI June 2020* 1408-1423
Yang, X., see Dong, M., *TPAMI June 2020* 1522-1529
Yang, X., Liu, Z., and Qiao, H., A Continuation Method for Graph Matching Based Feature Correspondence; *TPAMI Aug. 2020* 1809-1822
Yang, Y., Sun, J., Li, H., and Xu, Z., ADMM-CSNet: A Deep Learning Approach for Image Compressive Sensing; *TPAMI March 2020* 521-538
Yang, Y., Wu, Q.M.J., Feng, X., and Akilan, T., Recomputation of the Dense Layers for Performance Improvement of DCNN; *TPAMI Nov. 2020* 2912-2925
Yang, Z., Li, Q., Liu, W., and Lv, J., Shared Multi-View Data Representation for Multi-Domain Event Detection; *TPAMI May 2020* 1243-1256
Yang, Z., see Luo, C., *TPAMI Oct. 2020* 2624-2641
Yashunin, D.A., see Malkov, Y.A., *TPAMI April 2020* 824-836
Ye, H., Zhan, D., Li, N., and Jiang, Y., Learning Multiple Local Metrics: Global Consideration Helps; *TPAMI July 2020* 1698-1712
Ye, J., see Zhou, M., *TPAMI July 2020* 1594-1605
Ye, J., Qi, G., Zhuang, N., Hu, H., and Hua, K.A., Learning Compact Features for Human Activity Recognition Via Probabilistic First-Take-All; *TPAMI Jan. 2020* 126-139
Ye, J., see Chen, Y., *TPAMI Sept. 2020* 2133-2147
Ye, Z., see Liu, Y., *TPAMI July 2020* 1798-1805
Yeh, M., and Li, Y., Multilabel Deep Visual-Semantic Embedding; *TPAMI June 2020* 1530-1536
Yeung, S., see Mo, Z., *TPAMI July 2020* 1670-1684
Yin, J., see Liu, X., *TPAMI May 2020* 1191-1204
Yin, J., see Liu, X., *TPAMI June 2020* 1303-1316
Yin, S., see Wang, S., *TPAMI Sept. 2020* 2082-2095
Yong, H., see Ma, K., *TPAMI April 2020* 851-864
Youcef-Toumi, K., see Bennamoun, M., *TPAMI Oct. 2020* 2329-2332
Young, S.S., see Zhou, M., *TPAMI July 2020* 1594-1605
Yu, H., Wu, A., and Zheng, W., Unsupervised Person Re-Identification by Deep Asymmetric Metric Embedding; *TPAMI April 2020* 956-973
Yu, J., see Zhou, M., *TPAMI July 2020* 1594-1605
Yu, J., see Wang, C., *TPAMI July 2020* 1570-1581

Yu, J., and Blaschko, M.B., The Lovász Hinge: A Novel Convex Surrogate for Submodular Losses; *TPAMI March 2020* 735-748
Yu, K., Liu, L., Li, J., Ding, W., and Le, T.D., Multi-Source Causal Feature Selection; *TPAMI Sept. 2020* 2240-2256
Yu, S., Giraldo, L.G.S., Jenssen, R., and Principe, J.C., Multivariate Extension of Matrix-Based Rényi's α -Order Entropy Functional; *TPAMI Nov. 2020* 2960-2966
Yu, T., Zhao, J., Zheng, Z., Guo, K., Dai, Q., Li, H., Pons-Moll, G., and Liu, Y., DoubleFusion: Real-Time Capture of Human Performances with Inner Body Shapes from a Single Depth Sensor; *TPAMI Oct. 2020* 2523-2539
Yu, T., see Xu, L., *TPAMI Oct. 2020* 2508-2522
Yu, X., Fernando, B., Hartley, R., and Porikli, F., Semantic Face Hallucination: Super-Resolving Very Low-Resolution Face Images with Supplementary Attributes; *TPAMI Nov. 2020* 2926-2943
Yu, X., Shiri, F., Ghanem, B., and Porikli, F., Can We See More? Joint Frontalization and Hallucination of Unaligned Tiny Faces; *TPAMI Sept. 2020* 2148-2164
Yuan, H., see Gao, H., *TPAMI May 2020* 1218-1227
Yuan, J., see Hong, W., *TPAMI July 2020* 1783-1790
Yuan, X., see Panetta, K., *TPAMI March 2020* 509-520
Yuille, A., see Tang, P., *TPAMI Jan. 2020* 176-191
Yuille, A., see Luo, C., *TPAMI Oct. 2020* 2624-2641

Z

Zabatani, A., Surazhsky, V., Sperling, E., Moshe, S.B., Menashe, O., Silver, D.H., Karni, Z., Bronstein, A.M., Bronstein, M.M., and Kimmel, R., Intel® RealSense™ SR300 Coded Light Depth Camera; *TPAMI Oct. 2020* 2333-2345
Zanca, D., Melacci, S., and Gori, M., Gravitational Laws of Focus of Attention; *TPAMI Dec. 2020* 2983-2995
Zeng, D., see Liu, F., *TPAMI March 2020* 664-678
Zeng, W., see Tang, P., *TPAMI May 2020* 1272-1278
Zha, Z., see Chen, C., *TPAMI Dec. 2020* 3071-3087
Zhan, D., see Ye, H., *TPAMI July 2020* 1698-1712
Zhang, B., Xiong, D., and Su, J., Neural Machine Translation with Deep Attention; *TPAMI Jan. 2020* 154-163
Zhang, C., Fu, H., Hu, Q., Cao, X., Xie, Y., Tao, D., and Xu, D., Generalized Latent Multi-View Subspace Clustering; *TPAMI Jan. 2020* 86-99
Zhang, D., Han, J., Zhang, Y., and Xu, D., Synthesizing Supervision for Learning Deep Saliency Network without Human Annotation; *TPAMI July 2020* 1755-1769
Zhang, D., Han, J., Yang, L., and Xu, D., SPFTN: A Joint Learning Framework for Localizing and Segmenting Objects in Weakly Labeled Videos; *TPAMI Feb. 2020* 475-489
Zhang, D., Wang, L., Zhang, L., Dai, B.T., and Shen, H.T., The Gap of Semantic Parsing: A Survey on Automatic Math Word Problem Solvers; *TPAMI Sept. 2020* 2287-2305
Zhang, J., see Jiang, L., *TPAMI Oct. 2020* 2552-2566
Zhang, J., see Lian, C., *TPAMI April 2020* 880-893
Zhang, L., see Gu, S., *TPAMI Oct. 2020* 2437-2452
Zhang, L., see Ma, K., *TPAMI April 2020* 851-864
Zhang, L., see Zhang, D., *TPAMI Sept. 2020* 2287-2305
Zhang, M., see Xiao, H., *TPAMI May 2020* 1205-1217
Zhang, Q., see Chang, J., *TPAMI Nov. 2020* 2874-2886
Zhang, R., Zhu, S., Shen, T., Zhou, L., Luo, Z., Fang, T., and Quan, L., Distributed Very Large Scale Bundle Adjustment by Global Camera Consensus; *TPAMI Feb. 2020* 291-303
Zhang, R., Tang, S., Zhang, Y., Li, J., and Yan, S., Perspective-Adaptive Convolutions for Scene Parsing; *TPAMI April 2020* 909-924
Zhang, S., see Ramesh, B., *TPAMI Nov. 2020* 2767-2780
Zhang, T., see Luo, W., *TPAMI June 2020* 1317-1332
Zhang, W., Wang, B., Ma, L., and Liu, W., Reconstruct and Represent Video Contents for Captioning via Reinforcement Learning; *TPAMI Dec. 2020* 3088-3101
Zhang, Y., see Zhang, D., *TPAMI July 2020* 1755-1769
Zhang, Y., see Adeli, E., *TPAMI July 2020* 1713-1728

- Zhang, Y.**, David, P., Foroosh, H., and Gong, B., A Curriculum Domain Adaptation Approach to the Semantic Segmentation of Urban Scenes; *TPAMI Aug. 2020 1823-1841*
- Zhang, Y.**, see Zhang, R., *TPAMI April 2020 909-924*
- Zhang, Y.**, see Wang, F., *TPAMI Nov. 2020 2737-2754*
- Zhang, Z.**, Wang, M., and Nehorai, A., Optimal Transport in Reproducing Kernel Hilbert Spaces: Theory and Applications; *TPAMI July 2020 1741-1754*
- Zhang, Z.**, Cui, Z., Xu, C., Jie, Z., Li, X., and Yang, J., Joint Task-Recursive Learning for RGB-D Scene Understanding; *TPAMI Oct. 2020 2608-2623*
- Zhao, F.**, see Zhao, W., *TPAMI Aug. 2020 1884-1897*
- Zhao, J.**, Kneip, L., He, Y., and Ma, J., Minimal Case Relative Pose Computation Using Ray-Point-Ray Features; *TPAMI May 2020 1176-1190*
- Zhao, J.**, see Yu, T., *TPAMI Oct. 2020 2523-2539*
- Zhao, Q.**, see Liu, F., *TPAMI March 2020 664-678*
- Zhao, W.**, Zhao, F., Wang, D., and Lu, H., Defocus Blur Detection via Multi-Stream Bottom-Top-Bottom Network; *TPAMI Aug. 2020 1884-1897*
- Zheng, J.**, see Zuo, X., *TPAMI Oct. 2020 2720-2734*
- Zheng, W.**, see Yu, H., *TPAMI April 2020 956-973*
- Zheng, Z.**, see Yu, T., *TPAMI Oct. 2020 2523-2539*
- Zheng, Z.**, see Wang, S., *TPAMI Sept. 2020 2082-2095*
- Zhong, F.**, see Luo, W., *TPAMI June 2020 1317-1332*
- Zhou, B.**, see Monfort, M., *TPAMI Feb. 2020 502-508*
- Zhou, D.**, see Huang, X., *TPAMI Oct. 2020 2702-2719*
- Zhou, G.**, see Nauata, N., *TPAMI May 2020 1257-1271*
- Zhou, J.**, see Liu, H., *TPAMI March 2020 679-693*
- Zhou, J.**, and Wu, Y., Learning Visual Instance Retrieval from Failure: Efficient Online Local Metric Adaptation from Negative Samples; *TPAMI Nov. 2020 2858-2873*
- Zhou, L.**, see Zhang, R., *TPAMI Feb. 2020 291-303*
- Zhou, M.**, Ding, Y., Ji, Y., Young, S.S., Yu, J., and Ye, J., Shape and Reflectance Reconstruction Using Concentric Multi-Spectral Light Field; *TPAMI July 2020 1594-1605*
- Zhu, E.**, see Liu, X., *TPAMI May 2020 1191-1204*
- Zhu, E.**, see Liu, X., *TPAMI June 2020 1303-1316*
- Zhu, L.**, see Hu, X., *TPAMI Nov. 2020 2795-2808*
- Zhu, S.**, see Xie, J., *TPAMI Jan. 2020 27-45*
- Zhu, S.**, see Zhang, R., *TPAMI Feb. 2020 291-303*
- Zhu, X.**, see Li, M., *TPAMI July 2020 1770-1782*
- Zhu, X.**, see Liu, X., *TPAMI May 2020 1191-1204*
- Zhu, X.**, see Liu, X., *TPAMI June 2020 1303-1316*
- Zhu, Y.**, see Luo, G., *TPAMI June 2020 1289-1302*
- Zhuang, N.**, see Ye, J., *TPAMI Jan. 2020 126-139*
- Zibulevsky, M.**, see Shamaï, G., *TPAMI Jan. 2020 74-85*
- Zimek, A.**, see Iglesias, F., *TPAMI Sept. 2020 2096-2112*
- Zisserman, A.**, see Parkhi, O.M., *TPAMI April 2020 780-792*
- Zollhofer, M.**, see Tewari, A., *TPAMI Feb. 2020 357-370*
- Zou, D.**, Chen, X., Cao, G., and Wang, X., Unsupervised Video Matting via Sparse and Low-Rank Representation; *TPAMI June 2020 1501-1514*
- Zseby, T.**, see Iglesias, F., *TPAMI Sept. 2020 2096-2112*
- Zunic, J.**, and Rosin, P.L., Measuring Shapes with Desired Convex Polygons; *TPAMI June 2020 1394-1407*
- Zuo, W.**, see Gu, S., *TPAMI Oct. 2020 2437-2452*
- Zuo, X.**, Wang, S., Zheng, J., Pan, Z., and Yang, R., Detailed Surface Geometry and Albedo Recovery from RGB-D Video under Natural Illumination; *TPAMI Oct. 2020 2720-2734*
- Aggregates**
Local-Aggregation Graph Networks. *Chang, J.*, +, *TPAMI Nov. 2020 2874-2886*
- Albedo**
Detailed Surface Geometry and Albedo Recovery from RGB-D Video under Natural Illumination. *Zuo, X.*, +, *TPAMI Oct. 2020 2720-2734*
- Algebra**
Persistence Paths and Signature Features in Topological Data Analysis. *Chevyrev, I.*, +, *TPAMI Jan. 2020 192-202*
- Angular measurement**
Distance Surface for Event-Based Optical Flow. *Almatrafi, M.*, +, *TPAMI July 2020 1547-1556*
- Approximation algorithms**
Matched Filters for Noisy Induced Subgraph Detection. *Sussman, D.L.*, +, *TPAMI Nov. 2020 2887-2900*
MOSES: A Streaming Algorithm for Linear Dimensionality Reduction. *Eftekhari, A.*, +, *TPAMI Nov. 2020 2901-2911*
- Approximation theory**
A Continuation Method for Graph Matching Based Feature Correspondence. *Yang, X.*, +, *TPAMI Aug. 2020 1809-1822*
Aggregated Wasserstein Distance and State Registration for Hidden Markov Models. *Chen, Y.*, +, *TPAMI Sept. 2020 2133-2147*
Efficient and Robust Approximate Nearest Neighbor Search Using Hierarchical Navigable Small World Graphs. *Malkov, Y.A.*, +, *TPAMI April 2020 824-836*
Efficient Graph Cut Optimization for Full CRFs with Quantized Edges. *Veksler, O.*, *TPAMI April 2020 1005-1012*
Efficient Inter-Geodesic Distance Computation and Fast Classical Scaling. *Shamaï, G.*, +, *TPAMI Jan. 2020 74-85*
Fast Cross-Validation for Kernel-Based Algorithms. *Liu, Y.*, +, *TPAMI May 2020 1083-1096*
Generic Primitive Detection in Point Clouds Using Novel Minimal Quadric Fits. *Birdal, T.*, +, *TPAMI June 2020 1333-1347*
Photometric Stereo in Participating Media Using an Analytical Solution for Shape-Dependent Forward Scatter. *Fujimura, Y.*, +, *TPAMI March 2020 708-719*
Structured Low-Rank Matrix Factorization: Global Optimality, Algorithms, and Applications. *Haeffele, B.D.*, +, *TPAMI June 2020 1468-1482*
- Artificial intelligence**
Pictionary-Style Word Guessing on Hand-Drawn Object Sketches: Dataset, Analysis and Deep Network Models. *Sarvadevabhatla, R.K.*, +, *TPAMI Jan. 2020 221-231*
The Gap of Semantic Parsing: A Survey on Automatic Math Word Problem Solvers. *Zhang, D.*, +, *TPAMI Sept. 2020 2287-2305*
- Augmented reality**
A Curriculum Domain Adaptation Approach to the Semantic Segmentation of Urban Scenes. *Zhang, Y.*, +, *TPAMI Aug. 2020 1823-1841*
Real-Time RGB-D Camera Pose Estimation in Novel Scenes Using a Relocalisation Cascade. *Cavallari, T.*, +, *TPAMI Oct. 2020 2465-2477*
- Automobiles**
The ApolloScape Open Dataset for Autonomous Driving and Its Application. *Huang, X.*, +, *TPAMI Oct. 2020 2702-2719*
- Autoregressive processes**
Recurrent Temporal Aggregation Framework for Deep Video Inpainting. *Kim, D.*, +, *TPAMI May 2020 1038-1052*
- Avatars**
Unsupervised Generation of Free-Form and Parameterized Avatars. *Polyak, A.*, +, *TPAMI Feb. 2020 444-459*

SUBJECT INDEX

A

Acceleration

On the Convergence of Learning-Based Iterative Methods for Nonconvex Inverse Problems. *Liu, R.*, +, *TPAMI Dec. 2020 3027-3039*

Affine transforms

Discrete-Continuous Transformation Matching for Dense Semantic Correspondence. *Kim, S.*, +, *TPAMI Jan. 2020 59-73*

+ Check author entry for coauthors

B

Batch processing (computers)

Training Faster by Separating Modes of Variation in Batch-Normalized Models. *Kalayeh, M.M.*, +, *TPAMI June 2020 1483-1500*

Bayes methods

Bayesian Neural Networks with Weight Sharing Using Dirichlet Processes. *Roth, W.*, +, *TPAMI Jan. 2020 246-252*
Hierarchical Bayesian Inverse Lighting of Portraits with a Virtual Light Stage. *Shahlaei, D.*, +, *TPAMI April 2020 865-879*

Hyperspectral Recovery from RGB Images using Gaussian Processes. *Akhtar, N.*, +, *TPAMI Jan. 2020 100-113*

Learning of Gaussian Processes in Distributed and Communication Limited Systems. *Tavassolipour, M.*, +, *TPAMI Aug. 2020 1928-1941*

Belief networks

A Novel Dynamic Model Capturing Spatial and Temporal Patterns for Facial Expression Analysis. *Wang, S.*, +, *TPAMI Sept. 2020 2082-2095*

Benchmark testing

H-Patches: A Benchmark and Evaluation of Handcrafted and Learned Local Descriptors. *Balntas, V.*, +, *TPAMI Nov. 2020 2825-2841*

Direction-Aware Spatial Context Features for Shadow Detection and Removal. *Hu, X.*, +, *TPAMI Nov. 2020 2795-2808*

Toward Bridging the Simulated-to-Real Gap: Benchmarking Super-Resolution on Real Data. *Kohler, T.*, +, *TPAMI Nov. 2020 2944-2959*

Binary codes

Deep Variational and Structural Hashing. *Liong, V.E.*, +, *TPAMI March 2020 580-595*

Online Nearest Neighbor Search Using Hamming Weight Trees. *Eghbali, S.*, +, *TPAMI July 2020 1729-1740*

Biology computing

Multi-Source Causal Feature Selection. *Yu, K.*, +, *TPAMI Sept. 2020 2240-2256*

Biomechanics

Learning and Tracking the 3D Body Shape of Freely Moving Infants from RGB-D sequences. *Hesse, N.*, +, *TPAMI Oct. 2020 2540-2551*

Biomedical measurement

Learning and Tracking the 3D Body Shape of Freely Moving Infants from RGB-D sequences. *Hesse, N.*, +, *TPAMI Oct. 2020 2540-2551*

Biomedical MRI

Hierarchical Fully Convolutional Network for Joint Atrophy Localization and Alzheimer's Disease Diagnosis Using Structural MRI. *Lian, C.*, +, *TPAMI April 2020 880-893*

Weighted Manifold Alignment using Wave Kernel Signatures for Aligning Medical Image Datasets. *Clough, J.R.*, +, *TPAMI April 2020 988-997*

Biomedical optical imaging

On Detection of Faint Edges in Noisy Images. *Ofir, N.*, +, *TPAMI April 2020 894-908*

One-Bit Time-Resolved Imaging. *Bhandari, A.*, +, *TPAMI July 2020 1630-1641*

Biometrics (access control)

Contactless Biometric Identification Using 3D Finger Knuckle Patterns. *Cheng, K.H.M.*, +, *TPAMI Aug. 2020 1868-1883*

iDeLog: Iterative Dual Spatial and Kinematic Extraction of Sigma-Lognormal Parameters. *Ferrer, M.A.*, +, *TPAMI Jan. 2020 114-125*

Boltzmann machines

A Novel Dynamic Model Capturing Spatial and Temporal Patterns for Facial Expression Analysis. *Wang, S.*, +, *TPAMI Sept. 2020 2082-2095*

Brain models

Hierarchical Fully Convolutional Network for Joint Atrophy Localization and Alzheimer's Disease Diagnosis Using Structural MRI. *Lian, C.*, +, *TPAMI April 2020 880-893*

Brightness

Gravitational Laws of Focus of Attention. *Zanca, D.*, +, *TPAMI Dec. 2020 2983-2995*

C

Calibration

Ambiguity-Free Radiometric Calibration for Internet Photo Collections. *Mo, Z.*, +, *TPAMI July 2020 1670-1684*

Globally Optimal Inlier Set Maximization for Atlanta World Understanding. *Joo, K.*, +, *TPAMI Oct. 2020 2656-2669*

Intel® RealSense™ SR300 Coded Light Depth Camera. *Zabatani, A.*, +, *TPAMI Oct. 2020 2333-2345*

Learning and Tracking the 3D Body Shape of Freely Moving Infants from RGB-D sequences. *Hesse, N.*, +, *TPAMI Oct. 2020 2540-2551*

Semi-Calibrated Photometric Stereo. *Cho, D.*, +, *TPAMI Jan. 2020 232-245*

UnstructuredFusion: Realtime 4D Geometry and Texture Reconstruction Using Commercial RGBD Cameras. *Xu, L.*, +, *TPAMI Oct. 2020 2508-2522*

Unsupervised Deep Visual-Inertial Odometry with Online Error Correction for RGB-D Imagery. *Shamwell, E.J.*, +, *TPAMI Oct. 2020 2478-2493*

Cameras

A Disocclusion inpainting Framework for Depth-Based View Synthesis. *Luo, G.*, +, *TPAMI June 2020 1289-1302*

Baselines Extraction from Curved Document Images via Slope Fields Recovery. *Meng, G.*, +, *TPAMI April 2020 793-808*

Bound and Conquer: Improving Triangulation by Enforcing Consistency. *Scholefield, A.*, +, *TPAMI Sept. 2020 2321-2326*

DART: Distribution Aware Retinal Transform for Event-Based Cameras. *Ramesh, B.*, +, *TPAMI Nov. 2020 2767-2780*

Deep Slow Motion Video Reconstruction With Hybrid Imaging System. *Paliwal, A.*, +, *TPAMI July 2020 1557-1569*

Distance Surface for Event-Based Optical Flow. *Almatrafi, M.*, +, *TPAMI July 2020 1547-1556*

Distributed Very Large Scale Bundle Adjustment by Global Camera Consensus. *Zhang, R.*, +, *TPAMI Feb. 2020 291-303*

DoubleFusion: Real-Time Capture of Human Performances with Inner Body Shapes from a Single Depth Sensor. *Yu, T.*, +, *TPAMI Oct. 2020 2523-2539*

Every Pixel Counts ++: Joint Learning of Geometry and Motion with 3D Holistic Understanding. *Luo, C.*, +, *TPAMI Oct. 2020 2624-2641*

Face-from-Depth for Head Pose Estimation on Depth Images. *Borghi, G.*, +, *TPAMI March 2020 596-609*

Force from Motion: Decoding Control Force of Activity in a First-Person Video. *Park, H.S.*, +, *TPAMI March 2020 622-635*

Globally-Optimal Inlier Set Maximisation for Camera Pose and Correspondence Estimation. *Campbell, D.*, +, *TPAMI Feb. 2020 328-342*

Guest Editors' Introduction to the Special Issue on RGB-D Vision: Methods and Applications. *Bennamoun, M.*, +, *TPAMI Oct. 2020 2329-2332*

Intel® RealSense™ SR300 Coded Light Depth Camera. *Zabatani, A.*, +, *TPAMI Oct. 2020 2333-2345*

Leader-Based Multi-Scale Attention Deep Architecture for Person Re-Identification. *Qian, X.*, +, *TPAMI Feb. 2020 371-385*

Learned Dynamic Guidance for Depth Image Reconstruction. *Gu, S.*, +, *TPAMI Oct. 2020 2437-2452*

Neural Sensors: Learning Pixel Exposures for HDR Imaging and Video Compressive Sensing With Programmable Sensors. *Martel, J.N.P.*, +, *TPAMI July 2020 1642-1653*

NTU RGB+D 120: A Large-Scale Benchmark for 3D Human Activity Understanding. *Liu, J.*, +, *TPAMI Oct. 2020 2684-2701*

Real-Time RGB-D Camera Pose Estimation in Novel Scenes Using a Relocalisation Cascade. *Cavallari, T.*, +, *TPAMI Oct. 2020 2465-2477*

Rolling Shutter Camera Absolute Pose. *Albl, C.*, +, *TPAMI June 2020 1439-1452*

Shape and Reflectance Reconstruction Using Concentric Multi-Spectral Light Field. *Zhou, M.*, +, *TPAMI July 2020 1594-1605*

Snapshot Compressive ToF+Spectral Imaging via Optimized Color-Coded Apertures. *Rueda-Chacon, H.*, +, *TPAMI Oct. 2020 2346-2360*

SurfelMeshing: Online Surfel-Based Mesh Reconstruction. *Schops, T.*, +, *TPAMI Oct. 2020 2494-2507*

SweepCam — Depth-Aware Lensless Imaging Using Programmable Masks. *Hua, Y.*, +, *TPAMI July 2020 1606-1617*

The ApolloScape Open Dataset for Autonomous Driving and Its Application. *Huang, X.*, +, *TPAMI Oct. 2020 2702-2719*

Toward Bridging the Simulated-to-Real Gap: Benchmarking Super-Resolution on Real Data. *Kohler, T.*, +, *TPAMI Nov. 2020 2944-2959*

UnstructuredFusion: Realtime 4D Geometry and Texture Reconstruction Using Commercial RGBD Cameras. *Xu, L.*, +, *TPAMI Oct. 2020 2508-2522*

Unsupervised Deep Visual-Inertial Odometry with Online Error Correction for RGB-D Imagery. *Shamwell, E.J.*, +, *TPAMI Oct. 2020 2478-2493*

Unsupervised Learning of a Hierarchical Spiking Neural Network for Optical Flow Estimation: From Events to Global Motion Perception. *Paredes-Valles, F.*, +, *TPAMI Aug. 2020 2051-2064*

- Unsupervised Person Re-Identification by Deep Asymmetric Metric Embedding. *Yu, H.*, +, *TPAMI April 2020 956-973*
- Cinematography**
- Can We See More? Joint Frontalization and Hallucination of Unaligned Tiny Faces. *Yu, X.*, +, *TPAMI Sept. 2020 2148-2164*
- CMOS image sensors**
- PhlatCam: Designed Phase-Mask Based Thin Lensless Camera. *Boominathan, V.*, +, *TPAMI July 2020 1618-1629*
- Collaborative filtering**
- Heterogeneous Recommendation via Deep Low-Rank Sparse Collective Factorization. *Jiang, S.*, +, *TPAMI May 2020 1097-1111*
- Complexity theory**
- One Shot Segmentation: Unifying Rigid Detection and Non-Rigid Segmentation Using Elastic Regularization. *Nascimento, J.C.*, +, *TPAMI Dec. 2020 3054-3070*
- Compressed sensing**
- ADMM-CSNet: A Deep Learning Approach for Image Compressive Sensing. *Yang, Y.*, +, *TPAMI March 2020 521-538*
- Neural Sensors: Learning Pixel Exposures for HDR Imaging and Video Compressive Sensing With Programmable Sensors. *Martel, J.N.P.*, +, *TPAMI July 2020 1642-1653*
- Computational complexity**
- Efficient Inter-Geodesic Distance Computation and Fast Classical Scaling. *Shamai, G.*, +, *TPAMI Jan. 2020 74-85*
- Generic Primitive Detection in Point Clouds Using Novel Minimal Quadric Fits. *Birdal, T.*, +, *TPAMI June 2020 1333-1347*
- Learning Complexity-Aware Cascades for Pedestrian Detection. *Cai, Z.*, +, *TPAMI Sept. 2020 2195-2211*
- The Lovász Hinge: A Novel Convex Surrogate for Submodular Losses. *Yu, J.*, +, *TPAMI March 2020 735-748*
- Computational geometry**
- Efficient Inter-Geodesic Distance Computation and Fast Classical Scaling. *Shamai, G.*, +, *TPAMI Jan. 2020 74-85*
- Generic Primitive Detection in Point Clouds Using Novel Minimal Quadric Fits. *Birdal, T.*, +, *TPAMI June 2020 1333-1347*
- Hierarchical Surface Prediction. *Hane, C.*, +, *TPAMI June 2020 1348-1361*
- Hyperbolic Wasserstein Distance for Shape Indexing. *Shi, J.*, +, *TPAMI June 2020 1362-1376*
- Large-Scale Urban Reconstruction with Tensor Clustering and Global Boundary Refinement. *Poullis, C.*, *TPAMI May 2020 1132-1145*
- Neural Opacity Point Cloud. *Wang, C.*, +, *TPAMI July 2020 1570-1581*
- Revisiting Projective Structure from Motion: A Robust and Efficient Incremental Solution. *Magerand, L.*, +, *TPAMI Feb. 2020 430-443*
- SurfelMeshing: Online Surfel-Based Mesh Reconstruction. *Schops, T.*, +, *TPAMI Oct. 2020 2494-2507*
- Computational modeling**
- Gravitational Laws of Focus of Attention. *Zanca, D.*, +, *TPAMI Dec. 2020 2983-2995*
- Guest Editorial: Image and Video Inpainting and Denoising. *Escalera, S.*, +, *TPAMI May 2020 1021-1024*
- Real-World Image Denoising with Deep Boosting. *Chen, C.*, +, *TPAMI Dec. 2020 3071-3087*
- Semantic Fisher Scores for Task Transfer: Using Objects to Classify Scenes. *Dixit, M.*, +, *TPAMI Dec. 2020 3102-3118*
- Computer games**
- Pictionary-Style Word Guessing on Hand-Drawn Object Sketches: Dataset, Analysis and Deep Network Models. *Sarvadevabhatla, R.K.*, +, *TPAMI Jan. 2020 221-231*
- Computer graphics**
- A Curriculum Domain Adaptation Approach to the Semantic Segmentation of Urban Scenes. *Zhang, Y.*, +, *TPAMI Aug. 2020 1823-1841*
- Generic Primitive Detection in Point Clouds Using Novel Minimal Quadric Fits. *Birdal, T.*, +, *TPAMI June 2020 1333-1347*
- Computer vision**
- 3D Human Pose Machines with Self-Supervised Learning. *Wang, K.*, +, *TPAMI May 2020 1069-1082*
- A Comprehensive Analysis of Deep Regression. *Lathuiliere, S.*, +, *TPAMI Sept. 2020 2065-2081*
- A Continuation Method for Graph Matching Based Feature Correspondence. *Yang, X.*, +, *TPAMI Aug. 2020 1809-1822*
- Adversarial Learning of Structure-Aware Fully Convolutional Networks for Landmark Localization. *Chen, Y.*, +, *TPAMI July 2020 1654-1669*
- Asymmetric Mapping Quantization for Nearest Neighbor Search. *Hong, W.*, +, *TPAMI July 2020 1783-1790*
- Capturing the Geometry of Object Categories from Video Supervision. *Novotny, D.*, +, *TPAMI Feb. 2020 261-275*
- Clouds of Oriented Gradients for 3D Detection of Objects, Surfaces, and Indoor Scene Layouts. *Ren, Z.*, +, *TPAMI Oct. 2020 2670-2683*
- Context Based Emotion Recognition Using EMOTIC Dataset. *Kosti, R.*, +, *TPAMI Nov. 2020 2755-2766*
- CoRRN: Cooperative Reflection Removal Network. *Wan, R.*, +, *TPAMI Dec. 2020 2969-2982*
- Deep Neural Network Compression by In-Parallel Pruning-Quantization. *Tung, F.*, +, *TPAMI March 2020 568-579*
- Globally Optimal Inlier Set Maximization for Atlanta World Understanding. *Joo, K.*, +, *TPAMI Oct. 2020 2656-2669*
- Globally-Optimal Inlier Set Maximisation for Camera Pose and Correspondence Estimation. *Campbell, D.*, +, *TPAMI Feb. 2020 328-342*
- Guest Editorial: Image and Video Inpainting and Denoising. *Escalera, S.*, +, *TPAMI May 2020 1021-1024*
- Guest Editors' Introduction to the Special Issue on RGB-D Vision: Methods and Applications. *Bennamoun, M.*, +, *TPAMI Oct. 2020 2329-2332*
- Hyperbolic Wasserstein Distance for Shape Indexing. *Shi, J.*, +, *TPAMI June 2020 1362-1376*
- Joint Rain Detection and Removal from a Single Image with Contextualized Deep Networks. *Yang, W.*, +, *TPAMI June 2020 1377-1393*
- Large-Scale Urban Reconstruction with Tensor Clustering and Global Boundary Refinement. *Poullis, C.*, *TPAMI May 2020 1132-1145*
- LCR-Net++: Multi-Person 2D and 3D Pose Detection in Natural Images. *Rogez, G.*, +, *TPAMI May 2020 1146-1161*
- Learning Depth with Convolutional Spatial Propagation Network. *Cheng, X.*, +, *TPAMI Oct. 2020 2361-2379*
- Learning Raw Image Reconstruction-Aware Deep Image Compressors. *Punnappurath, A.*, +, *TPAMI April 2020 1013-1019*
- Learning with Privileged Information via Adversarial Discriminative Modality Distillation. *Garcia, N.C.*, +, *TPAMI Oct. 2020 2581-2593*
- Light Field Super-Resolution Using a Low-Rank Prior and Deep Convolutional Neural Networks. *Farrugia, R.A.*, +, *TPAMI May 2020 1162-1175*
- Local Deformable 3D Reconstruction with Cartan's Connections. *Parashar, S.*, +, *TPAMI Dec. 2020 3011-3026*
- Matched Filters for Noisy Induced Subgraph Detection. *Sussman, D.L.*, +, *TPAMI Nov. 2020 2887-2900*
- Models Matter, So Does Training: An Empirical Study of CNNs for Optical Flow Estimation. *Sun, D.*, +, *TPAMI June 2020 1408-1423*
- Motion Segmentation & Multiple Object Tracking by Correlation Co-Clustering. *Keuper, M.*, +, *TPAMI Jan. 2020 140-153*
- Mutually Guided Image Filtering. *Guo, X.*, +, *TPAMI March 2020 694-707*
- Person Recognition in Personal Photo Collections. *Oh, S.J.*, +, *TPAMI Jan. 2020 203-220*
- Real-Time RGB-D Camera Pose Estimation in Novel Scenes Using a Localisation Cascade. *Cavallari, T.*, +, *TPAMI Oct. 2020 2465-2477*
- Recognizing Material Properties from Images. *Schwartz, G.*, +, *TPAMI Aug. 2020 1981-1995*
- Rolling Shutter Camera Absolute Pose. *Albl, C.*, +, *TPAMI June 2020 1439-1452*
- Significance of Softmax-Based Features in Comparison to Distance Metric Learning-Based Features. *Horiguchi, S.*, +, *TPAMI May 2020 1279-1285*
- Sparse Coding of Shape Trajectories for Facial Expression and Action Recognition. *Tanfous, A.B.*, +, *TPAMI Oct. 2020 2594-2607*
- Subspace Clustering via Good Neighbors. *Yang, J.*, +, *TPAMI June 2020 1537-1544*
- The ApolloScape Open Dataset for Autonomous Driving and Its Application. *Huang, X.*, +, *TPAMI Oct. 2020 2702-2719*
- Unsupervised Domain Adaptation for Depth Prediction from Images. *Tonioni, A.*, +, *TPAMI Oct. 2020 2396-2409*

- Unsupervised Learning of a Hierarchical Spiking Neural Network for Optical Flow Estimation: From Events to Global Motion Perception. *Paredes-Valles, F.*, +, *TPAMI Aug. 2020 2051-2064*
- Computerized instrumentation**
- Ambiguity-Free Radiometric Calibration for Internet Photo Collections. *Mo, Z.*, +, *TPAMI July 2020 1670-1684*
- Concave programming**
- A Continuation Method for Graph Matching Based Feature Correspondence. *Yang, X.*, +, *TPAMI Aug. 2020 1809-1822*
- Convergence**
- A Simple and Fast Algorithm for L1-Norm Kernel PCA. *Kim, C.*, +, *TPAMI Aug. 2020 1842-1855*
- On the Convergence of Learning-Based Iterative Methods for Nonconvex Inverse Problems. *Liu, R.*, +, *TPAMI Dec. 2020 3027-3039*
- Convex programming**
- A Continuation Method for Graph Matching Based Feature Correspondence. *Yang, X.*, +, *TPAMI Aug. 2020 1809-1822*
- Absent Multiple Kernel Learning Algorithms. *Liu, X.*, +, *TPAMI June 2020 1303-1316*
- Logistic Regression Confined by Cardinality-Constrained Sample and Feature Selection. *Adeli, E.*, +, *TPAMI July 2020 1713-1728*
- Structured Low-Rank Matrix Factorization: Global Optimality, Algorithms, and Applications. *Haefele, B.D.*, +, *TPAMI June 2020 1468-1482*
- Tensor Graphical Model: Non-Convex Optimization and Statistical Inference. *Lyu, X.*, +, *TPAMI Aug. 2020 2024-2037*
- Tensor Robust Principal Component Analysis with a New Tensor Nuclear Norm. *Lu, C.*, +, *TPAMI April 2020 925-938*
- The Lovász Hinge: A Novel Convex Surrogate for Submodular Losses. *Yu, J.*, +, *TPAMI March 2020 735-748*
- Convolution**
- Deep Variational and Structural Hashing. *Liong, V.E.*, +, *TPAMI March 2020 580-595*
- Local-Aggregation Graph Networks. *Chang, J.*, +, *TPAMI Nov. 2020 2874-2886*
- Convolutional neural nets**
- A Comprehensive Analysis of Deep Regression. *Lathuiliere, S.*, +, *TPAMI Sept. 2020 2065-2081*
- A Curriculum Domain Adaptation Approach to the Semantic Segmentation of Urban Scenes. *Zhang, Y.*, +, *TPAMI Aug. 2020 1823-1841*
- Automated Video Face Labelling for Films and TV Material. *Parkhi, O.M.*, +, *TPAMI April 2020 780-792*
- Border-Peeling Clustering. *Averbuch-Elor, H.*, +, *TPAMI July 2020 1791-1797*
- Can We See More? Joint Frontalization and Hallucination of Unaligned Tiny Faces. *Yu, X.*, +, *TPAMI Sept. 2020 2148-2164*
- Confidence Propagation through CNNs for Guided Sparse Depth Regression. *Eldesokey, A.*, +, *TPAMI Oct. 2020 2423-2436*
- Cooperative Training of Descriptor and Generator Networks. *Xie, J.*, +, *TPAMI Jan. 2020 27-45*
- Deep Metric Learning with BIER: Boosting Independent Embeddings Robustly. *Opitz, M.*, +, *TPAMI Feb. 2020 276-290*
- Defining Image Memorability Using the Visual Memory Schema. *Akagunduz, E.*, +, *TPAMI Sept. 2020 2165-2178*
- Discrete-Continuous Transformation Matching for Dense Semantic Correspondence. *Kim, S.*, +, *TPAMI Jan. 2020 59-73*
- End-to-End Active Object Tracking and Its Real-World Deployment via Reinforcement Learning. *Luo, W.*, +, *TPAMI June 2020 1317-1332*
- Face-from-Depth for Head Pose Estimation on Depth Images. *Borghi, G.*, +, *TPAMI March 2020 596-609*
- Feature Boosting Network For 3D Pose Estimation. *Liu, J.*, +, *TPAMI Feb. 2020 494-501*
- Focal Loss for Dense Object Detection. *Lin, T.*, +, *TPAMI Feb. 2020 318-327*
- Generalized Feedback Loop for Joint Hand-Object Pose Estimation. *Oberweger, M.*, +, *TPAMI Aug. 2020 1898-1912*
- Guided Attention Inference Network. *Li, K.*, +, *TPAMI Dec. 2020 2996-3010*
- Recomputation of the Dense Layers for Performance Improvement of DCNN. *Yang, Y.*, +, *TPAMI Nov. 2020 2912-2925*
- Hierarchical Surface Prediction. *Hane, C.*, +, *TPAMI June 2020 1348-1361*
- High-Fidelity Monocular Face Reconstruction Based on an Unsupervised Model-Based Face Autoencoder. *Tewari, A.*, +, *TPAMI Feb. 2020 357-370*
- Image and Sentence Matching via Semantic Concepts and Order Learning. *Huang, Y.*, +, *TPAMI March 2020 636-650*
- Inferring Salient Objects from Human Fixations. *Wang, W.*, +, *TPAMI Aug. 2020 1913-1927*
- Learning Depth with Convolutional Spatial Propagation Network. *Cheng, X.*, +, *TPAMI Oct. 2020 2361-2379*
- Learning More Universal Representations for Transfer-Learning. *Tamaazousti, Y.*, +, *TPAMI Sept. 2020 2212-2224*
- Light Field Super-Resolution Using a Low-Rank Prior and Deep Convolutional Neural Networks. *Farrugia, R.A.*, +, *TPAMI May 2020 1162-1175*
- Mask R-CNN. *He, K.*, +, *TPAMI Feb. 2020 386-397*
- Models Matter, So Does Training: An Empirical Study of CNNs for Optical Flow Estimation. *Sun, D.*, +, *TPAMI June 2020 1408-1423*
- Multilabel Deep Visual-Semantic Embedding. *Yeh, M.*, +, *TPAMI June 2020 1530-1536*
- On Multi-Layer Basis Pursuit, Efficient Algorithms and Convolutional Neural Networks. *Sulam, J.*, +, *TPAMI Aug. 2020 1968-1980*
- Online Meta Adaptation for Fast Video Object Segmentation. *Xiao, H.*, +, *TPAMI May 2020 1205-1217*
- PCL: Proposal Cluster Learning for Weakly Supervised Object Detection. *Tang, P.*, +, *TPAMI Jan. 2020 176-191*
- Perspective-Adaptive Convolutions for Scene Parsing. *Zhang, R.*, +, *TPAMI April 2020 909-924*
- Pixel Transposed Convolutional Networks. *Gao, H.*, +, *TPAMI May 2020 1218-1227*
- RefineNet: Multi-Path Refinement Networks for Dense Prediction. *Lin, G.*, +, *TPAMI May 2020 1228-1242*
- Robust RGB-D Face Recognition Using Attribute-Aware Loss. *Jiang, L.*, +, *TPAMI Oct. 2020 2552-2566*
- Skeleton-Based Online Action Prediction Using Scale Selection Network. *Liu, J.*, +, *TPAMI June 2020 1453-1467*
- Squeeze-and-Excitation Networks. *Hu, J.*, +, *TPAMI Aug. 2020 2011-2023*
- The Whole Is More Than Its Parts? From Explicit to Implicit Pose Normalization. *Simon, M.*, +, *TPAMI March 2020 749-763*
- Training Faster by Separating Modes of Variation in Batch-Normalized Models. *Kalayeh, M.M.*, +, *TPAMI June 2020 1483-1500*
- Unsupervised Learning of a Hierarchical Spiking Neural Network for Optical Flow Estimation: From Events to Global Motion Perception. *Paredes-Valles, F.*, +, *TPAMI Aug. 2020 2051-2064*
- Weakly Supervised Learning with Multi-Stream CNN-LSTM-HMMs to Discover Sequential Parallelism in Sign Language Videos. *Koller, O.*, +, *TPAMI Sept. 2020 2306-2320*
- Cooperative systems**
- CoRRN: Cooperative Reflection Removal Network. *Wan, R.*, +, *TPAMI Dec. 2020 2969-2982*
- Correlation**
- Matched Filters for Noisy Induced Subgraph Detection. *Sussman, D.L.*, +, *TPAMI Nov. 2020 2887-2900*
- A Disocclusion Inpainting Framework for Depth-Based View Synthesis. *Luo, G.*, +, *TPAMI June 2020 1289-1302*
- Covariance matrices**
- Hierarchical Gaussian Descriptors with Application to Person Re-Identification. *Matsukawa, T.*, +, *TPAMI Sept. 2020 2179-2194*
- Optimal Transport in Reproducing Kernel Hilbert Spaces: Theory and Applications. *Zhang, Z.*, +, *TPAMI July 2020 1741-1754*
- Tensor Graphical Model: Non-Convex Optimization and Statistical Inference. *Lyu, X.*, +, *TPAMI Aug. 2020 2024-2037*
- Cryptography**
- Deep Variational and Structural Hashing. *Liong, V.E.*, +, *TPAMI March 2020 580-595*

D

Data analysis

- Flexible High-Dimensional Unsupervised Learning with Missing Data. *Wei, Y.*, +, *TPAMI March 2020 610-621*
- Learning Local Metrics and Influential Regions for Classification. *Dong, M.*, +, *TPAMI June 2020 1522-1529*
- Multi-Source Causal Feature Selection. *Yu, K.*, +, *TPAMI Sept. 2020 2240-2256*
- Persistence Paths and Signature Features in Topological Data Analysis. *Chevyrev, I.*, +, *TPAMI Jan. 2020 192-202*

Data compression

- ADMM-CSNet: A Deep Learning Approach for Image Compressive Sensing. *Yang, Y.*, +, *TPAMI March 2020 521-538*
- Deep Neural Network Compression by In-Parallel Pruning-Quantization. *Tung, F.*, +, *TPAMI March 2020 568-579*
- Extracting Geometric Structures in Images with Delaunay Point Processes. *Favreau, J.*, +, *TPAMI April 2020 837-850*
- Learning Raw Image Reconstruction-Aware Deep Image Compressors. *Punnapurath, A.*, +, *TPAMI April 2020 1013-1019*

Data handling

- Absent Multiple Kernel Learning Algorithms. *Liu, X.*, +, *TPAMI June 2020 1303-1316*

Data mining

- Absolute Cluster Validity. *Iglesias, F.*, +, *TPAMI Sept. 2020 2096-2112*
- Heterogeneous Recommendation via Deep Low-Rank Sparse Collective Factorization. *Jiang, S.*, +, *TPAMI May 2020 1097-1111*
- Multi-Source Causal Feature Selection. *Yu, K.*, +, *TPAMI Sept. 2020 2240-2256*
- Progressive Representation Adaptation for Weakly Supervised Object Localization. *Li, D.*, +, *TPAMI June 2020 1424-1438*
- Unsupervised Person Re-Identification by Deep Asymmetric Metric Embedding. *Yu, H.*, +, *TPAMI April 2020 956-973*

Data models

- Learning Low-Dimensional Temporal Representations with Latent Alignments. *Su, B.*, +, *TPAMI Nov. 2020 2842-2857*

Data structures

- Absolute Cluster Validity. *Iglesias, F.*, +, *TPAMI Sept. 2020 2096-2112*
- Flexible High-Dimensional Unsupervised Learning with Missing Data. *Wei, Y.*, +, *TPAMI March 2020 610-621*
- Shared Multi-View Data Representation for Multi-Domain Event Detection. *Yang, Z.*, +, *TPAMI May 2020 1243-1256*

Data visualization

- Deep Neural Network Compression by In-Parallel Pruning-Quantization. *Tung, F.*, +, *TPAMI March 2020 568-579*
- The Whole Is More Than Its Parts? From Explicit to Implicit Pose Normalization. *Simon, M.*, +, *TPAMI March 2020 749-763*

Databases

- Context Based Emotion Recognition Using EMOTIC Dataset. *Kosti, R.*, +, *TPAMI Nov. 2020 2755-2766*
- Toward Bridging the Simulated-to-Real Gap: Benchmarking Super-Resolution on Real Data. *Kohler, T.*, +, *TPAMI Nov. 2020 2944-2959*

Decoding

- Reconstruct and Represent Video Contents for Captioning via Reinforcement Learning. *Zhang, W.*, +, *TPAMI Dec. 2020 3088-3101*

Deep learning

- CoRRN: Cooperative Reflection Removal Network. *Wan, R.*, +, *TPAMI Dec. 2020 2969-2982*
- On the Robustness of Semantic Segmentation Models to Adversarial Attacks. *Arnab, A.*, +, *TPAMI Dec. 2020 3040-3053*
- One Shot Segmentation: Unifying Rigid Detection and Non-Rigid Segmentation Using Elastic Regularization. *Nascimento, J.C.*, +, *TPAMI Dec. 2020 3054-3070*
- Recomputation of the Dense Layers for Performance Improvement of DCNN. *Yang, Y.*, +, *TPAMI Nov. 2020 2912-2925*

Deformable models

- Local Deformable 3D Reconstruction with Cartan's Connections. *Parashar, S.*, +, *TPAMI Dec. 2020 3011-3026*

Detectors

- H-Patches: A Benchmark and Evaluation of Handcrafted and Learned Local Descriptors. *Baltas, V.*, +, *TPAMI Nov. 2020 2825-2841*

Differential equations

- Baselines Extraction from Curved Document Images via Slope Fields Recovery. *Meng, G.*, +, *TPAMI April 2020 793-808*

Differential geometry

- Efficient Inter-Geodesic Distance Computation and Fast Classical Scaling. *Shamai, G.*, +, *TPAMI Jan. 2020 74-85*

Digital signatures

- iDeLog: Iterative Dual Spatial and Kinematic Extraction of Sigma-Lognormal Parameters. *Ferrer, M.A.*, +, *TPAMI Jan. 2020 114-125*
- Persistence Paths and Signature Features in Topological Data Analysis. *Chevyrev, I.*, +, *TPAMI Jan. 2020 192-202*

Dimensionality reduction

- Learning Low-Dimensional Temporal Representations with Latent Alignments. *Su, B.*, +, *TPAMI Nov. 2020 2842-2857*
- MOSES: A Streaming Algorithm for Linear Dimensionality Reduction. *Eftekhari, A.*, +, *TPAMI Nov. 2020 2901-2911*

Diseases

- Hierarchical Fully Convolutional Network for Joint Atrophy Localization and Alzheimer's Disease Diagnosis Using Structural MRI. *Lian, C.*, +, *TPAMI April 2020 880-893*
- Hyperbolic Wasserstein Distance for Shape Indexing. *Shi, J.*, +, *TPAMI June 2020 1362-1376*
- Logistic Regression Confined by Cardinality-Constrained Sample and Feature Selection. *Adeli, E.*, +, *TPAMI July 2020 1713-1728*
- Multi-Source Causal Feature Selection. *Yu, K.*, +, *TPAMI Sept. 2020 2240-2256*

Distance measurement

- Unsupervised Deep Visual-Inertial Odometry with Online Error Correction for RGB-D Imagery. *Shamwell, E.J.*, +, *TPAMI Oct. 2020 2478-2493*

Distributed algorithms

- Learning of Gaussian Processes in Distributed and Communication Limited Systems. *Tavassolipour, M.*, +, *TPAMI Aug. 2020 1928-1941*

Distributed processing

- Distributed Very Large Scale Bundle Adjustment by Global Camera Consensus. *Zhang, R.*, +, *TPAMI Feb. 2020 291-303*

Document image processing

- Baselines Extraction from Curved Document Images via Slope Fields Recovery. *Meng, G.*, +, *TPAMI April 2020 793-808*

E

Edge detection

- Baselines Extraction from Curved Document Images via Slope Fields Recovery. *Meng, G.*, +, *TPAMI April 2020 793-808*
- On Detection of Faint Edges in Noisy Images. *Ofir, N.*, +, *TPAMI April 2020 894-908*

Eigenvalues and eigenfunctions

- Approximate Fisher Information Matrix to Characterize the Training of Deep Neural Networks. *Liao, Z.*, +, *TPAMI Jan. 2020 15-26*

Embedded systems

- Intel® RealSense™ SR300 Coded Light Depth Camera. *Zabatani, A.*, +, *TPAMI Oct. 2020 2333-2345*

Emotion recognition

- A Novel Dynamic Model Capturing Spatial and Temporal Patterns for Facial Expression Analysis. *Wang, S.*, +, *TPAMI Sept. 2020 2082-2095*
- A Novel Geometric Framework on Gram Matrix Trajectories for Human Behavior Understanding. *Kacem, A.*, +, *TPAMI Jan. 2020 1-14*
- Context Based Emotion Recognition Using EMOTIC Dataset. *Kosti, R.*, +, *TPAMI Nov. 2020 2755-2766*

Entertainment

- Automated Video Face Labelling for Films and TV Material. *Parkhi, O.M.*, +, *TPAMI April 2020 780-792*

Entropy

- Context-Aware Query Selection for Active Learning in Event Recognition. *Hasan, M.*, +, *TPAMI March 2020 554-567*

Focal Loss for Dense Object Detection. *Lin, T.*, +, *TPAMI Feb. 2020 318-327*
 Multivariate Extension of Matrix-Based Rényi's α -Order Entropy Functional. *Yu, S.*, +, *TPAMI Nov. 2020 2960-2966*

Estimation

MOSES: A Streaming Algorithm for Linear Dimensionality Reduction. *Eftekhari, A.*, +, *TPAMI Nov. 2020 2901-2911*
 Multivariate Extension of Matrix-Based Rényi's α -Order Entropy Functional. *Yu, S.*, +, *TPAMI Nov. 2020 2960-2966*

Estimation theory

Shape and Reflectance Reconstruction Using Concentric Multi-Spectral Light Field. *Zhou, M.*, +, *TPAMI July 2020 1594-1605*

Expectation-maximization algorithms

Detailed Surface Geometry and Albedo Recovery from RGB-D Video under Natural Illumination. *Zuo, X.*, +, *TPAMI Oct. 2020 2720-2734*
 Flexible High-Dimensional Unsupervised Learning with Missing Data. *Wei, Y.*, +, *TPAMI March 2020 610-621*
 Properties of Mean Shift. *Yamasaki, R.*, +, *TPAMI Sept. 2020 2273-2286*

Extrapolation

A Temporally-Aware Interpolation Network for Video Frame Inpainting. *Szeio, R.*, +, *TPAMI May 2020 1053-1068*

F

Face

Context Based Emotion Recognition Using EMOTIC Dataset. *Kosti, R.*, +, *TPAMI Nov. 2020 2755-2766*
 Deep Imbalanced Learning for Face Recognition and Attribute Prediction. *Huang, C.*, +, *TPAMI Nov. 2020 2781-2794*
 Face Hallucination by Attentive Sequence Optimization with Reinforcement Learning. *Shi, Y.*, +, *TPAMI Nov. 2020 2809-2824*
 Semantic Face Hallucination: Super-Resolving Very Low-Resolution Face Images with Supplementary Attributes. *Yu, X.*, +, *TPAMI Nov. 2020 2926-2943*

Face recognition

A Comprehensive Database for Benchmarking Imaging Systems. *Panetta, K.*, +, *TPAMI March 2020 509-520*
 A Novel Dynamic Model Capturing Spatial and Temporal Patterns for Facial Expression Analysis. *Wang, S.*, +, *TPAMI Sept. 2020 2082-2095*
 A Novel Geometric Framework on Gram Matrix Trajectories for Human Behavior Understanding. *Kacem, A.*, +, *TPAMI Jan. 2020 1-14*
 Adversarial Cross-Spectral Face Completion for NIR-VIS Face Recognition. *He, R.*, +, *TPAMI May 2020 1025-1037*
 Adversarial Learning of Structure-Aware Fully Convolutional Networks for Landmark Localization. *Chen, Y.*, +, *TPAMI July 2020 1654-1669*
 Age from Faces in the Deep Learning Revolution. *Carletti, V.*, +, *TPAMI Sept. 2020 2113-2132*
 Automated Video Face Labelling for Films and TV Material. *Parkhi, O.M.*, +, *TPAMI April 2020 780-792*
 Can We See More? Joint Frontalization and Hallucination of Unaligned Tiny Faces. *Yu, X.*, +, *TPAMI Sept. 2020 2148-2164*
 Context Based Emotion Recognition Using EMOTIC Dataset. *Kosti, R.*, +, *TPAMI Nov. 2020 2755-2766*
 Deep Imbalanced Learning for Face Recognition and Attribute Prediction. *Huang, C.*, +, *TPAMI Nov. 2020 2781-2794*
 Differential 3D Facial Recognition: Adding 3D to Your State-of-the-Art 2D Method. *Martino, J.M.D.*, +, *TPAMI July 2020 1582-1593*
 Face-from-Depth for Head Pose Estimation on Depth Images. *Borghi, G.*, +, *TPAMI March 2020 596-609*
 Hierarchical Bayesian Inverse Lighting of Portraits with a Virtual Light Stage. *Shahlaei, D.*, +, *TPAMI April 2020 865-879*
 High-Fidelity Monocular Face Reconstruction Based on an Unsupervised Model-Based Face Autoencoder. *Tewari, A.*, +, *TPAMI Feb. 2020 357-370*
 Hyperbolic Wasserstein Distance for Shape Indexing. *Shi, J.*, +, *TPAMI June 2020 1362-1376*
 Intel® RealSense™ SR300 Coded Light Depth Camera. *Zabatani, A.*, +, *TPAMI Oct. 2020 2333-2345*
 Joint Face Alignment and 3D Face Reconstruction with Application to Face Recognition. *Liu, F.*, +, *TPAMI March 2020 664-678*

Learning Reasoning-Decision Networks for Robust Face Alignment. *Liu, H.*, +, *TPAMI March 2020 679-693*
 Person Recognition in Personal Photo Collections. *Oh, S.J.*, +, *TPAMI Jan. 2020 203-220*

Robust RGB-D Face Recognition Using Attribute-Aware Loss. *Jiang, L.*, +, *TPAMI Oct. 2020 2552-2566*

Sparse Coding of Shape Trajectories for Facial Expression and Action Recognition. *Tanfous, A.B.*, +, *TPAMI Oct. 2020 2594-2607*

Facial features

Semantic Face Hallucination: Super-Resolving Very Low-Resolution Face Images with Supplementary Attributes. *Yu, X.*, +, *TPAMI Nov. 2020 2926-2943*

Feature extraction

H-Patches: A Benchmark and Evaluation of Handcrafted and Learned Local Descriptors. *Balntas, V.*, +, *TPAMI Nov. 2020 2825-2841*
 A Continuation Method for Graph Matching Based Feature Correspondence. *Yang, X.*, +, *TPAMI Aug. 2020 1809-1822*
 A Disocclusion Inpainting Framework for Depth-Based View Synthesis. *Luo, G.*, +, *TPAMI June 2020 1289-1302*
 A Novel Geometric Framework on Gram Matrix Trajectories for Human Behavior Understanding. *Kacem, A.*, +, *TPAMI Jan. 2020 1-14*
 Adversarial Action Prediction Networks. *Kong, Y.*, +, *TPAMI March 2020 539-553*
 Adversarial Cross-Spectral Face Completion for NIR-VIS Face Recognition. *He, R.*, +, *TPAMI May 2020 1025-1037*
 Automated Video Face Labelling for Films and TV Material. *Parkhi, O.M.*, +, *TPAMI April 2020 780-792*
 Baselines Extraction from Curved Document Images via Slope Fields Recovery. *Meng, G.*, +, *TPAMI April 2020 793-808*
 Clouds of Oriented Gradients for 3D Detection of Objects, Surfaces, and Indoor Scene Layouts. *Ren, Z.*, +, *TPAMI Oct. 2020 2670-2683*
 Contactless Biometric Identification Using 3D Finger Knuckle Patterns. *Cheng, K.H.M.*, +, *TPAMI Aug. 2020 1868-1883*
 CoRRN: Cooperative Reflection Removal Network. *Wan, R.*, +, *TPAMI Dec. 2020 2969-2982*
 DART: Distribution Aware Retinal Transform for Event-Based Cameras. *Ramesh, B.*, +, *TPAMI Nov. 2020 2767-2780*
 Deep Variational and Structural Hashing. *Liong, V.E.*, +, *TPAMI March 2020 580-595*
 Defocus Blur Detection via Multi-Stream Bottom-Top-Bottom Network. *Zhao, W.*, +, *TPAMI Aug. 2020 1884-1897*
 Detecting Coherent Groups in Crowd Scenes by Multiview Clustering. *Wang, Q.*, +, *TPAMI Jan. 2020 46-58*
 Differential 3D Facial Recognition: Adding 3D to Your State-of-the-Art 2D Method. *Martino, J.M.D.*, +, *TPAMI July 2020 1582-1593*
 Direction-Aware Spatial Context Features for Shadow Detection and Removal. *Hu, X.*, +, *TPAMI Nov. 2020 2795-2808*
 Feature Boosting Network For 3D Pose Estimation. *Liu, J.*, +, *TPAMI Feb. 2020 494-501*
 Generic Primitive Detection in Point Clouds Using Novel Minimal Quadric Fits. *Birdal, T.*, +, *TPAMI June 2020 1333-1347*
 Hierarchical Fully Convolutional Network for Joint Atrophy Localization and Alzheimer's Disease Diagnosis Using Structural MRI. *Lian, C.*, +, *TPAMI April 2020 880-893*
 Hierarchical Gaussian Descriptors with Application to Person Re-Identification. *Matsukawa, T.*, +, *TPAMI Sept. 2020 2179-2194*
 Hierarchical LSTMs with Adaptive Attention for Visual Captioning. *Gao, L.*, +, *TPAMI May 2020 1112-1131*
 High-Fidelity Monocular Face Reconstruction Based on an Unsupervised Model-Based Face Autoencoder. *Tewari, A.*, +, *TPAMI Feb. 2020 357-370*
 Inferring Salient Objects from Human Fixations. *Wang, W.*, +, *TPAMI Aug. 2020 1913-1927*
 Intel® RealSense™ SR300 Coded Light Depth Camera. *Zabatani, A.*, +, *TPAMI Oct. 2020 2333-2345*
 Joint Task-Recursive Learning for RGB-D Scene Understanding. *Zhang, Z.*, +, *TPAMI Oct. 2020 2608-2623*

- Leader-Based Multi-Scale Attention Deep Architecture for Person Re-Identification. *Qian, X.*, +, *TPAMI Feb. 2020 371-385*
- Learning Compact Features for Human Activity Recognition Via Probabilistic First-Take-All. *Ye, J.*, +, *TPAMI Jan. 2020 126-139*
- Learning Low-Dimensional Temporal Representations with Latent Alignments. *Su, B.*, +, *TPAMI Nov. 2020 2842-2857*
- Learning Visual Instance Retrieval from Failure: Efficient Online Local Metric Adaptation from Negative Samples. *Zhou, J.*, +, *TPAMI Nov. 2020 2858-2873*
- Learning with Privileged Information via Adversarial Discriminative Modality Distillation. *Garcia, N.C.*, +, *TPAMI Oct. 2020 2581-2593*
- Local-LDA: Open-Ended Learning of Latent Topics for 3D Object Recognition. *Kasaei, S.H.*, +, *TPAMI Oct. 2020 2567-2580*
- Minimal Case Relative Pose Computation Using Ray-Point-Ray Features. *Zhao, J.*, +, *TPAMI May 2020 1176-1190*
- Multi-Source Causal Feature Selection. *Yu, K.*, +, *TPAMI Sept. 2020 2240-2256*
- Neural Opacity Point Cloud. *Wang, C.*, +, *TPAMI July 2020 1570-1581*
- NTU RGB+D 120: A Large-Scale Benchmark for 3D Human Activity Understanding. *Liu, J.*, +, *TPAMI Oct. 2020 2684-2701*
- Object Detection in Videos by High Quality Object Linking. *Tang, P.*, +, *TPAMI May 2020 1272-1278*
- Online Nearest Neighbor Search Using Hamming Weight Trees. *Eghbali, S.*, +, *TPAMI July 2020 1729-1740*
- Person Recognition in Personal Photo Collections. *Oh, S.J.*, +, *TPAMI Jan. 2020 203-220*
- Perspective-Adaptive Convolutions for Scene Parsing. *Zhang, R.*, +, *TPAMI April 2020 909-924*
- Pixel Transposed Convolutional Networks. *Gao, H.*, +, *TPAMI May 2020 1218-1227*
- Real-Time RGB-D Camera Pose Estimation in Novel Scenes Using a Localisation Cascade. *Cavallari, T.*, +, *TPAMI Oct. 2020 2465-2477*
- Recognizing Material Properties from Images. *Schwartz, G.*, +, *TPAMI Aug. 2020 1981-1995*
- RefineNet: Multi-Path Refinement Networks for Dense Prediction. *Lin, G.*, +, *TPAMI May 2020 1228-1242*
- Semantic Face Hallucination: Super-Resolving Very Low-Resolution Face Images with Supplementary Attributes. *Yu, X.*, +, *TPAMI Nov. 2020 2926-2943*
- Semi-Supervised Adversarial Monocular Depth Estimation. *Ji, R.*, +, *TPAMI Oct. 2020 2410-2422*
- Significance of Softmax-Based Features in Comparison to Distance Metric Learning-Based Features. *Horiguchi, S.*, +, *TPAMI May 2020 1279-1285*
- Sparse Coding of Shape Trajectories for Facial Expression and Action Recognition. *Tanfous, A.B.*, +, *TPAMI Oct. 2020 2594-2607*
- Structured Label Inference for Visual Understanding. *Nauata, N.*, +, *TPAMI May 2020 1257-1271*
- Unsupervised Learning of a Hierarchical Spiking Neural Network for Optical Flow Estimation: From Events to Global Motion Perception. *Paredes-Valles, F.*, +, *TPAMI Aug. 2020 2051-2064*
- Unsupervised Person Re-Identification by Deep Asymmetric Metric Embedding. *Yu, H.*, +, *TPAMI April 2020 956-973*
- Unsupervised Video Matting via Sparse and Low-Rank Representation. *Zou, D.*, +, *TPAMI June 2020 1501-1514*
- Feature selection**
- Logistic Regression Confined by Cardinality-Constrained Sample and Feature Selection. *Adeli, E.*, +, *TPAMI July 2020 1713-1728*
- Multi-Source Causal Feature Selection. *Yu, K.*, +, *TPAMI Sept. 2020 2240-2256*
- Skeleton-Based Online Action Prediction Using Scale Selection Network. *Liu, J.*, +, *TPAMI June 2020 1453-1467*
- Feedforward neural networks**
- Bayesian Neural Networks with Weight Sharing Using Dirichlet Processes. *Roth, W.*, +, *TPAMI Jan. 2020 246-252*
- File organization**
- Deep Variational and Structural Hashing. *Liong, V.E.*, +, *TPAMI March 2020 580-595*
- Filtering theory**
- On Detection of Faint Edges in Noisy Images. *Ofir, N.*, +, *TPAMI April 2020 894-908*
- Fingerprint identification**
- Contactless Biometric Identification Using 3D Finger Knuckle Patterns. *Cheng, K.H.M.*, +, *TPAMI Aug. 2020 1868-1883*
- Function approximation**
- End-to-End Active Object Tracking and Its Real-World Deployment via Reinforcement Learning. *Luo, W.*, +, *TPAMI June 2020 1317-1332*
- Local-Aggregation Graph Networks. *Chang, J.*, +, *TPAMI Nov. 2020 2874-2886*
- Fuzzy set theory**
- Neural Opacity Point Cloud. *Wang, C.*, +, *TPAMI July 2020 1570-1581*
- G**
- Game theory**
- Group Maximum Differentiation Competition: Model Comparison with Few Samples. *Ma, K.*, +, *TPAMI April 2020 851-864*
- Gaussian distribution**
- Aggregated Wasserstein Distance and State Registration for Hidden Markov Models. *Chen, Y.*, +, *TPAMI Sept. 2020 2133-2147*
- Hierarchical Gaussian Descriptors with Application to Person Re-Identification. *Matsukawa, T.*, +, *TPAMI Sept. 2020 2179-2194*
- Optimal Transport in Reproducing Kernel Hilbert Spaces: Theory and Applications. *Zhang, Z.*, +, *TPAMI July 2020 1741-1754*
- Properties of Mean Shift. *Yamasaki, R.*, +, *TPAMI Sept. 2020 2273-2286*
- Training Faster by Separating Modes of Variation in Batch-Normalized Models. *Kalayeh, M.M.*, +, *TPAMI June 2020 1483-1500*
- Gaussian processes**
- A Continuation Method for Graph Matching Based Feature Correspondence. *Yang, X.*, +, *TPAMI Aug. 2020 1809-1822*
- Aggregated Wasserstein Distance and State Registration for Hidden Markov Models. *Chen, Y.*, +, *TPAMI Sept. 2020 2133-2147*
- Efficient Graph Cut Optimization for Full CRFs with Quantized Edges. *Vek-sler, O.*, *TPAMI April 2020 1005-1012*
- Flexible High-Dimensional Unsupervised Learning with Missing Data. *Wei, Y.*, +, *TPAMI March 2020 610-621*
- Hierarchical Gaussian Descriptors with Application to Person Re-Identification. *Matsukawa, T.*, +, *TPAMI Sept. 2020 2179-2194*
- Hyperspectral Recovery from RGB Images using Gaussian Processes. *Akhtar, N.*, +, *TPAMI Jan. 2020 100-113*
- Learning of Gaussian Processes in Distributed and Communication Limited Systems. *Tavassolipour, M.*, +, *TPAMI Aug. 2020 1928-1941*
- Tracking-by-Fusion via Gaussian Process Regression Extended to Transfer Learning. *Gao, J.*, +, *TPAMI April 2020 939-955*
- Genetics**
- Multi-Source Causal Feature Selection. *Yu, K.*, +, *TPAMI Sept. 2020 2240-2256*
- Geographic information systems**
- A Curriculum Domain Adaptation Approach to the Semantic Segmentation of Urban Scenes. *Zhang, Y.*, +, *TPAMI Aug. 2020 1823-1841*
- Geometry**
- A Novel Geometric Framework on Gram Matrix Trajectories for Human Behavior Understanding. *Kacem, A.*, +, *TPAMI Jan. 2020 1-14*
- DoubleFusion: Real-Time Capture of Human Performances with Inner Body Shapes from a Single Depth Sensor. *Yu, T.*, +, *TPAMI Oct. 2020 2523-2539*
- Every Pixel Counts ++: Joint Learning of Geometry and Motion with 3D Holistic Understanding. *Luo, C.*, +, *TPAMI Oct. 2020 2624-2641*
- Hierarchical Bayesian Inverse Lighting of Portraits with a Virtual Light Stage. *Shahlaei, D.*, +, *TPAMI April 2020 865-879*
- UnstructuredFusion: Realtime 4D Geometry and Texture Reconstruction Using Commercial RGBD Cameras. *Xu, L.*, +, *TPAMI Oct. 2020 2508-2522*
- Geophysical image processing**
- Approximate Sparse Multinomial Logistic Regression for Classification. *Kayabol, K.*, *TPAMI Feb. 2020 490-493*

Geophysical signal processing

Hyperspectral Recovery from RGB Images using Gaussian Processes. *Akhtar, N.*, +, *TPAMI Jan. 2020 100-113*

Gesture recognition

Intel® RealSense™ SR300 Coded Light Depth Camera. *Zabatani, A.*, +, *TPAMI Oct. 2020 2333-2345*

Weakly Supervised Learning with Multi-Stream CNN-LSTM-HMMs to Discover Sequential Parallelism in Sign Language Videos. *Koller, O.*, +, *TPAMI Sept. 2020 2306-2320*

Global Positioning System

The ApolloScape Open Dataset for Autonomous Driving and Its Application. *Huang, X.*, +, *TPAMI Oct. 2020 2702-2719*

Gradient methods

Clouds of Oriented Gradients for 3D Detection of Objects, Surfaces, and Indoor Scene Layouts. *Ren, Z.*, +, *TPAMI Oct. 2020 2670-2683*

Deep Metric Learning with BIER: Boosting Independent Embeddings Robustly. *Opitz, M.*, +, *TPAMI Feb. 2020 276-290*

Generic Primitive Detection in Point Clouds Using Novel Minimal Quadric Fits. *Birdal, T.*, +, *TPAMI June 2020 1333-1347*

Heterogeneous Recommendation via Deep Low-Rank Sparse Collective Factorization. *Jiang, S.*, +, *TPAMI May 2020 1097-1111*

Learning Reasoning-Decision Networks for Robust Face Alignment. *Liu, H.*, +, *TPAMI March 2020 679-693*

Learning Representations for Neural Network-Based Classification Using the Information Bottleneck Principle. *Amjad, R.A.*, +, *TPAMI Sept. 2020 2225-2239*

Logistic Regression Confined by Cardinality-Constrained Sample and Feature Selection. *Adeli, E.*, +, *TPAMI July 2020 1713-1728*

Properties of Mean Shift. *Yamasaki, R.*, +, *TPAMI Sept. 2020 2273-2286*

Grammars

The Gap of Semantic Parsing: A Survey on Automatic Math Word Problem Solvers. *Zhang, D.*, +, *TPAMI Sept. 2020 2287-2305*

Graph theory

A Continuation Method for Graph Matching Based Feature Correspondence. *Yang, X.*, +, *TPAMI Aug. 2020 1809-1822*

Distributed Very Large Scale Bundle Adjustment by Global Camera Consensus. *Zhang, R.*, +, *TPAMI Feb. 2020 291-303*

DoubleFusion: Real-Time Capture of Human Performances with Inner Body Shapes from a Single Depth Sensor. *Yu, T.*, +, *TPAMI Oct. 2020 2523-2539*

Efficient and Robust Approximate Nearest Neighbor Search Using Hierarchical Navigable Small World Graphs. *Malkov, Y.A.*, +, *TPAMI April 2020 824-836*

Efficient Graph Cut Optimization for Full CRFs with Quantized Edges. *Veksel, O.*, *TPAMI April 2020 1005-1012*

Joint Segmentation and Path Classification of Curvilinear Structures. *Mosinska, A.*, +, *TPAMI June 2020 1515-1521*

Structured Label Inference for Visual Understanding. *Nauata, N.*, +, *TPAMI May 2020 1257-1271*

Visibility Graphs for Image Processing. *Iacovacci, J.*, +, *TPAMI April 2020 974-987*

Weighted Manifold Alignment using Wave Kernel Signatures for Aligning Medical Image Datasets. *Clough, J.R.*, +, *TPAMI April 2020 988-997*

Graphics processing units

Generalized Feedback Loop for Joint Hand-Object Pose Estimation. *Oberweger, M.*, +, *TPAMI Aug. 2020 1898-1912*

Unsupervised Learning of a Hierarchical Spiking Neural Network for Optical Flow Estimation: From Events to Global Motion Perception. *Paredes-Valles, F.*, +, *TPAMI Aug. 2020 2051-2064*

Gravity

Gravitational Laws of Focus of Attention. *Zanca, D.*, +, *TPAMI Dec. 2020 2983-2995*

H**Handicapped aids**

Weakly Supervised Learning with Multi-Stream CNN-LSTM-HMMs to Discover Sequential Parallelism in Sign Language Videos. *Koller, O.*, +, *TPAMI Sept. 2020 2306-2320*

Hardware

Toward Bridging the Simulated-to-Real Gap: Benchmarking Super-Resolution on Real Data. *Kohler, T.*, +, *TPAMI Nov. 2020 2944-2959*

Hidden Markov models

A Hybrid RNN-HMM Approach for Weakly Supervised Temporal Action Segmentation. *Kuehne, H.*, +, *TPAMI April 2020 765-779*

Aggregated Wasserstein Distance and State Registration for Hidden Markov Models. *Chen, Y.*, +, *TPAMI Sept. 2020 2133-2147*

Learning Low-Dimensional Temporal Representations with Latent Alignments. *Su, B.*, +, *TPAMI Nov. 2020 2842-2857*

Weakly Supervised Learning with Multi-Stream CNN-LSTM-HMMs to Discover Sequential Parallelism in Sign Language Videos. *Koller, O.*, +, *TPAMI Sept. 2020 2306-2320*

Hilbert spaces

Back to the Future: Radial Basis Function Network Revisited. *Que, Q.*, +, *TPAMI Aug. 2020 1856-1867*

Optimal Transport in Reproducing Kernel Hilbert Spaces: Theory and Applications. *Zhang, Z.*, +, *TPAMI July 2020 1741-1754*

Hough transforms

Generic Primitive Detection in Point Clouds Using Novel Minimal Quadric Fits. *Birdal, T.*, +, *TPAMI June 2020 1333-1347*

Human computer interaction

Sparse Coding of Shape Trajectories for Facial Expression and Action Recognition. *Tanfous, A.B.*, +, *TPAMI Oct. 2020 2594-2607*

Hyperbolic equations

Hyperbolic Wasserstein Distance for Shape Indexing. *Shi, J.*, +, *TPAMI June 2020 1362-1376*

I**Image annotation**

Progressive Representation Adaptation for Weakly Supervised Object Localization. *Li, D.*, +, *TPAMI June 2020 1424-1438*

Image capture

Intel® RealSense™ SR300 Coded Light Depth Camera. *Zabatani, A.*, +, *TPAMI Oct. 2020 2333-2345*

Image classification

A Hybrid RNN-HMM Approach for Weakly Supervised Temporal Action Segmentation. *Kuehne, H.*, +, *TPAMI April 2020 765-779*

A Novel Geometric Framework on Gram Matrix Trajectories for Human Behavior Understanding. *Kacem, A.*, +, *TPAMI Jan. 2020 1-14*

Approximate Fisher Information Matrix to Characterize the Training of Deep Neural Networks. *Liao, Z.*, +, *TPAMI Jan. 2020 15-26*

Approximate Sparse Multinomial Logistic Regression for Classification. *Kayabol, K.*, *TPAMI Feb. 2020 490-493*

Clouds of Oriented Gradients for 3D Detection of Objects, Surfaces, and Indoor Scene Layouts. *Ren, Z.*, +, *TPAMI Oct. 2020 2670-2683*

Defocus Blur Detection via Multi-Stream Bottom-Top-Bottom Network. *Zhao, W.*, +, *TPAMI Aug. 2020 1884-1897*

Focal Loss for Dense Object Detection. *Lin, T.*, +, *TPAMI Feb. 2020 318-327*

Hierarchical Fully Convolutional Network for Joint Atrophy Localization and Alzheimer's Disease Diagnosis Using Structural MRI. *Lian, C.*, +, *TPAMI April 2020 880-893*

Hyperbolic Wasserstein Distance for Shape Indexing. *Shi, J.*, +, *TPAMI June 2020 1362-1376*

Joint Segmentation and Path Classification of Curvilinear Structures. *Mosinska, A.*, +, *TPAMI June 2020 1515-1521*

LCR-Net++: Multi-Person 2D and 3D Pose Detection in Natural Images. *Rogez, G.*, +, *TPAMI May 2020 1146-1161*

Learning More Universal Representations for Transfer-Learning. *Tamaazousti, Y.*, +, *TPAMI Sept. 2020 2212-2224*

Learning with Privileged Information via Adversarial Discriminative Modality Distillation. *Garcia, N.C.*, +, *TPAMI Oct. 2020 2581-2593*

Logistic Regression Confined by Cardinality-Constrained Sample and Feature Selection. *Adeli, E.*, +, *TPAMI July 2020 1713-1728*

Multilabel Deep Visual-Semantic Embedding. *Yeh, M.*, +, *TPAMI June 2020 1530-1536*

- Object Detection from Scratch with Deep Supervision. *Shen, Z., +, TPAMI Feb. 2020 398-412*
- Open Set Domain Adaptation for Image and Action Recognition. *Panareda Busto, P., +, TPAMI Feb. 2020 413-429*
- Optimal Transport in Reproducing Kernel Hilbert Spaces: Theory and Applications. *Zhang, Z., +, TPAMI July 2020 1741-1754*
- PCL: Proposal Cluster Learning for Weakly Supervised Object Detection. *Tang, P., +, TPAMI Jan. 2020 176-191*
- Perspective-Adaptive Convolutions for Scene Parsing. *Zhang, R., +, TPAMI April 2020 909-924*
- Progressive Representation Adaptation for Weakly Supervised Object Localization. *Li, D., +, TPAMI June 2020 1424-1438*
- Real-Time RGB-D Camera Pose Estimation in Novel Scenes Using a Relocalisation Cascade. *Cavallari, T., +, TPAMI Oct. 2020 2465-2477*
- Recognizing Material Properties from Images. *Schwartz, G., +, TPAMI Aug. 2020 1981-1995*
- RefineNet: Multi-Path Refinement Networks for Dense Prediction. *Lin, G., +, TPAMI May 2020 1228-1242*
- Structured Label Inference for Visual Understanding. *Nauata, N., +, TPAMI May 2020 1257-1271*
- The Whole Is More Than Its Parts? From Explicit to Implicit Pose Normalization. *Simon, M., +, TPAMI March 2020 749-763*
- Training Faster by Separating Modes of Variation in Batch-Normalized Models. *Kalayeh, M.M., +, TPAMI June 2020 1483-1500*
- Unsupervised Domain Adaptation for Depth Prediction from Images. *Tonioni, A., +, TPAMI Oct. 2020 2396-2409*
- Visibility Graphs for Image Processing. *Iacovacci, J., +, TPAMI April 2020 974-987*
- Weakly Supervised Learning with Multi-Stream CNN-LSTM-HMMs to Discover Sequential Parallelism in Sign Language Videos. *Koller, O., +, TPAMI Sept. 2020 2306-2320*
- Image coding**
- ADMM-CSNet: A Deep Learning Approach for Image Compressive Sensing. *Yang, Y., +, TPAMI March 2020 521-538*
- Defining Image Memorability Using the Visual Memory Schema. *Akagunduz, E., +, TPAMI Sept. 2020 2165-2178*
- Extracting Geometric Structures in Images with Delaunay Point Processes. *Favreau, J., +, TPAMI April 2020 837-850*
- Learning Raw Image Reconstruction-Aware Deep Image Compressors. *Punnappurath, A., +, TPAMI April 2020 1013-1019*
- PhlatCam: Designed Phase-Mask Based Thin Lensless Camera. *Boominathan, V., +, TPAMI July 2020 1618-1629*
- Snapshot Compressive ToF+Spectral Imaging via Optimized Color-Coded Apertures. *Rueda-Chacon, H., +, TPAMI Oct. 2020 2346-2360*
- Image color analysis**
- Ambiguity-Free Radiometric Calibration for Internet Photo Collections. *Mo, Z., +, TPAMI July 2020 1670-1684*
- Clouds of Oriented Gradients for 3D Detection of Objects, Surfaces, and Indoor Scene Layouts. *Ren, Z., +, TPAMI Oct. 2020 2670-2683*
- Confidence Propagation through CNNs for Guided Sparse Depth Regression. *Eldesokey, A., +, TPAMI Oct. 2020 2423-2436*
- Detailed Surface Geometry and Albedo Recovery from RGB-D Video under Natural Illumination. *Zuo, X., +, TPAMI Oct. 2020 2720-2734*
- Direction-Aware Spatial Context Features for Shadow Detection and Removal. *Hu, X., +, TPAMI Nov. 2020 2795-2808*
- Every Pixel Counts ++: Joint Learning of Geometry and Motion with 3D Holistic Understanding. *Luo, C., +, TPAMI Oct. 2020 2624-2641*
- Face-from-Depth for Head Pose Estimation on Depth Images. *Borghini, G., +, TPAMI March 2020 596-609*
- Feature Boosting Network For 3D Pose Estimation. *Liu, J., +, TPAMI Feb. 2020 494-501*
- Guest Editors' Introduction to the Special Issue on RGB-D Vision: Methods and Applications. *Bennamoun, M., +, TPAMI Oct. 2020 2329-2332*
- Hiding Images within Images. *Baluja, S., TPAMI July 2020 1685-1697*
- Hierarchical Bayesian Inverse Lighting of Portraits with a Virtual Light Stage. *Shahlaei, D., +, TPAMI April 2020 865-879*
- Hierarchical Surface Prediction. *Hane, C., +, TPAMI June 2020 1348-1361*
- High-Fidelity Monocular Face Reconstruction Based on an Unsupervised Model-Based Face Autoencoder. *Tewari, A., +, TPAMI Feb. 2020 357-370*
- Hyperspectral Recovery from RGB Images using Gaussian Processes. *Akhtar, N., +, TPAMI Jan. 2020 100-113*
- Intel® RealSense™ SR300 Coded Light Depth Camera. *Zabatani, A., +, TPAMI Oct. 2020 2333-2345*
- Joint Task-Recursive Learning for RGB-D Scene Understanding. *Zhang, Z., +, TPAMI Oct. 2020 2608-2623*
- Learned Dynamic Guidance for Depth Image Reconstruction. *Gu, S., +, TPAMI Oct. 2020 2437-2452*
- Learning and Tracking the 3D Body Shape of Freely Moving Infants from RGB-D sequences. *Hesse, N., +, TPAMI Oct. 2020 2540-2551*
- Learning Depth with Convolutional Spatial Propagation Network. *Cheng, X., +, TPAMI Oct. 2020 2361-2379*
- Learning Raw Image Reconstruction-Aware Deep Image Compressors. *Punnappurath, A., +, TPAMI April 2020 1013-1019*
- Learning with Privileged Information via Adversarial Discriminative Modality Distillation. *Garcia, N.C., +, TPAMI Oct. 2020 2581-2593*
- Mutually Guided Image Filtering. *Guo, X., +, TPAMI March 2020 694-707*
- Photometric Depth Super-Resolution. *Haefner, B., +, TPAMI Oct. 2020 2453-2464*
- Providing a Single Ground-Truth for Illuminant Estimation for the Color-Checker Dataset. *Hemrit, G., +, TPAMI May 2020 1286-1287*
- Real-Time RGB-D Camera Pose Estimation in Novel Scenes Using a Relocalisation Cascade. *Cavallari, T., +, TPAMI Oct. 2020 2465-2477*
- ROAM: A Rich Object Appearance Model with Application to Rotoscoping. *Perez-Rua, J., +, TPAMI Aug. 2020 1996-2010*
- Robust RGB-D Face Recognition Using Attribute-Aware Loss. *Jiang, L., +, TPAMI Oct. 2020 2552-2566*
- Semi-Supervised Adversarial Monocular Depth Estimation. *Ji, R., +, TPAMI Oct. 2020 2410-2422*
- Single Image Dehazing Using Haze-Lines. *Berman, D., +, TPAMI March 2020 720-734*
- Snapshot Compressive ToF+Spectral Imaging via Optimized Color-Coded Apertures. *Rueda-Chacon, H., +, TPAMI Oct. 2020 2346-2360*
- Structured Label Inference for Visual Understanding. *Nauata, N., +, TPAMI May 2020 1257-1271*
- SurfelMeshing: Online Surfel-Based Mesh Reconstruction. *Schops, T., +, TPAMI Oct. 2020 2494-2507*
- Unsupervised Video Matting via Sparse and Low-Rank Representation. *Zou, D., +, TPAMI June 2020 1501-1514*
- Zig-Zag Network for Semantic Segmentation of RGB-D Images. *Lin, D., +, TPAMI Oct. 2020 2642-2655*
- Image denoising**
- On Detection of Faint Edges in Noisy Images. *Ofir, N., +, TPAMI April 2020 894-908*
- Progressive Representation Adaptation for Weakly Supervised Object Localization. *Li, D., +, TPAMI June 2020 1424-1438*
- Real-World Image Denoising with Deep Boosting. *Chen, C., +, TPAMI Dec. 2020 3071-3087*
- Single Image Dehazing Using Haze-Lines. *Berman, D., +, TPAMI March 2020 720-734*
- Tensor Robust Principal Component Analysis with a New Tensor Nuclear Norm. *Lu, C., +, TPAMI April 2020 925-938*
- Image enhancement**
- Feature Boosting Network For 3D Pose Estimation. *Liu, J., +, TPAMI Feb. 2020 494-501*
- Learned Dynamic Guidance for Depth Image Reconstruction. *Gu, S., +, TPAMI Oct. 2020 2437-2452*
- Single Image Dehazing Using Haze-Lines. *Berman, D., +, TPAMI March 2020 720-734*
- Image filtering**
- Discrete-Continuous Transformation Matching for Dense Semantic Correspondence. *Kim, S., +, TPAMI Jan. 2020 59-73*
- Mutually Guided Image Filtering. *Guo, X., +, TPAMI March 2020 694-707*
- Tracking-by-Fusion via Gaussian Process Regression Extended to Transfer Learning. *Gao, J., +, TPAMI April 2020 939-955*

Visibility Graphs for Image Processing. *Iacovacci, J.*, +, *TPAMI April 2020* 974-987

Image fusion

Progressive Fusion for Unsupervised Binocular Depth Estimation Using Cycled Networks. *Pilzer, A.*, +, *TPAMI Oct. 2020* 2380-2395

Tracking-by-Fusion via Gaussian Process Regression Extended to Transfer Learning. *Gao, J.*, +, *TPAMI April 2020* 939-955

Image matching

H-Patches: A Benchmark and Evaluation of Handcrafted and Learned Local Descriptors. *Balntas, V.*, +, *TPAMI Nov. 2020* 2825-2841

A Continuation Method for Graph Matching Based Feature Correspondence. *Yang, X.*, +, *TPAMI Aug. 2020* 1809-1822

Adversarial Cross-Spectral Face Completion for NIR-VIS Face Recognition. *He, R.*, +, *TPAMI May 2020* 1025-1037

Contactless Biometric Identification Using 3D Finger Knuckle Patterns. *Cheng, K.H.M.*, +, *TPAMI Aug. 2020* 1868-1883

Detailed Surface Geometry and Albedo Recovery from RGB-D Video under Natural Illumination. *Zuo, X.*, +, *TPAMI Oct. 2020* 2720-2734

Discrete-Continuous Transformation Matching for Dense Semantic Correspondence. *Kim, S.*, +, *TPAMI Jan. 2020* 59-73

Every Pixel Counts ++: Joint Learning of Geometry and Motion with 3D Holistic Understanding. *Luo, C.*, +, *TPAMI Oct. 2020* 2624-2641

Globally-Optimal Inlier Set Maximisation for Camera Pose and Correspondence Estimation. *Campbell, D.*, +, *TPAMI Feb. 2020* 328-342

Image and Sentence Matching via Semantic Concepts and Order Learning. *Huang, Y.*, +, *TPAMI March 2020* 636-650

Learning Depth with Convolutional Spatial Propagation Network. *Cheng, X.*, +, *TPAMI Oct. 2020* 2361-2379

Real-Time RGB-D Camera Pose Estimation in Novel Scenes Using a Localisation Cascade. *Cavallari, T.*, +, *TPAMI Oct. 2020* 2465-2477

Unsupervised Domain Adaptation for Depth Prediction from Images. *Tonioni, A.*, +, *TPAMI Oct. 2020* 2396-2409

Unsupervised Person Re-Identification by Deep Asymmetric Metric Embedding. *Yu, H.*, +, *TPAMI April 2020* 956-973

Weighted Manifold Alignment using Wave Kernel Signatures for Aligning Medical Image Datasets. *Clough, J.R.*, +, *TPAMI April 2020* 988-997

Image motion analysis

3D Human Pose Machines with Self-Supervised Learning. *Wang, K.*, +, *TPAMI May 2020* 1069-1082

Detecting Coherent Groups in Crowd Scenes by Multiview Clustering. *Wang, Q.*, +, *TPAMI Jan. 2020* 46-58

Distance Surface for Event-Based Optical Flow. *Almatrafi, M.*, +, *TPAMI July 2020* 1547-1556

Distributed Very Large Scale Bundle Adjustment by Global Camera Consensus. *Zhang, R.*, +, *TPAMI Feb. 2020* 291-303

DoubleFusion: Real-Time Capture of Human Performances with Inner Body Shapes from a Single Depth Sensor. *Yu, T.*, +, *TPAMI Oct. 2020* 2523-2539

Every Pixel Counts ++: Joint Learning of Geometry and Motion with 3D Holistic Understanding. *Luo, C.*, +, *TPAMI Oct. 2020* 2624-2641

Force from Motion: Decoding Control Force of Activity in a First-Person Video. *Park, H.S.*, +, *TPAMI March 2020* 622-635

Learning and Tracking the 3D Body Shape of Freely Moving Infants from RGB-D sequences. *Hesse, N.*, +, *TPAMI Oct. 2020* 2540-2551

Learning with Privileged Information via Adversarial Discriminative Modality Distillation. *Garcia, N.C.*, +, *TPAMI Oct. 2020* 2581-2593

Motion Segmentation & Multiple Object Tracking by Correlation Co-Clustering. *Keuper, M.*, +, *TPAMI Jan. 2020* 140-153

Motion-Guided Cascaded Refinement Network for Video Object Segmentation. *Hu, P.*, +, *TPAMI Aug. 2020* 1957-1967

NTU RGB+D 120: A Large-Scale Benchmark for 3D Human Activity Understanding. *Liu, J.*, +, *TPAMI Oct. 2020* 2684-2701

Object Detection in Videos by High Quality Object Linking. *Tang, P.*, +, *TPAMI May 2020* 1272-1278

Online Meta Adaptation for Fast Video Object Segmentation. *Xiao, H.*, +, *TPAMI May 2020* 1205-1217

Recurrent Temporal Aggregation Framework for Deep Video Inpainting. *Kim, D.*, +, *TPAMI May 2020* 1038-1052

ROAM: A Rich Object Appearance Model with Application to Rotoscoping. *Perez-Rua, J.*, +, *TPAMI Aug. 2020* 1996-2010

Rolling Shutter Camera Absolute Pose. *Albl, C.*, +, *TPAMI June 2020* 1439-1452

Skeleton-Based Online Action Prediction Using Scale Selection Network. *Liu, J.*, +, *TPAMI June 2020* 1453-1467

Sparse Coding of Shape Trajectories for Facial Expression and Action Recognition. *Tanfous, A.B.*, +, *TPAMI Oct. 2020* 2594-2607

Structured Label Inference for Visual Understanding. *Nauata, N.*, +, *TPAMI May 2020* 1257-1271

UnstructuredFusion: Realtime 4D Geometry and Texture Reconstruction Using Commercial RGBD Cameras. *Xu, L.*, +, *TPAMI Oct. 2020* 2508-2522

Image processing

Inverse Visual Question Answering: A New Benchmark and VQA Diagnosis Tool. *Liu, F.*, +, *TPAMI Feb. 2020* 460-474

Ranking-Preserving Cross-Source Learning for Image Retargeting Quality Assessment. *Liu, Y.*, +, *TPAMI July 2020* 1798-1805

Trace Quotient with Sparsity Priors for Learning Low Dimensional Image Representations. *Wei, X.*, +, *TPAMI Dec. 2020* 3119-3135

Unsupervised Tracklet Person Re-Identification. *Li, M.*, +, *TPAMI July 2020* 1770-1782

Image recognition

Back to the Future: Radial Basis Function Network Revisited. *Que, Q.*, +, *TPAMI Aug. 2020* 1856-1867

Defining Image Memorability Using the Visual Memory Schema. *Akagunduz, E.*, +, *TPAMI Sept. 2020* 2165-2178

NTU RGB+D 120: A Large-Scale Benchmark for 3D Human Activity Understanding. *Liu, J.*, +, *TPAMI Oct. 2020* 2684-2701

On the Robustness of Semantic Segmentation Models to Adversarial Attacks. *Arnab, A.*, +, *TPAMI Dec. 2020* 3040-3053

Vocabulary-Informed Zero-Shot and Open-Set Learning. *Fu, Y.*, +, *TPAMI Dec. 2020* 3136-3152

Image reconstruction

ADMM-CSNet: A Deep Learning Approach for Image Compressive Sensing. *Yang, Y.*, +, *TPAMI March 2020* 521-538

Bound and Conquer: Improving Triangulation by Enforcing Consistency. *Scholefield, A.*, +, *TPAMI Sept. 2020* 2321-2326

Can We See More? Joint Frontalization and Hallucination of Unaligned Tiny Faces. *Yu, X.*, +, *TPAMI Sept. 2020* 2148-2164

Deep Slow Motion Video Reconstruction With Hybrid Imaging System. *Paliwal, A.*, +, *TPAMI July 2020* 1557-1569

Defining Image Memorability Using the Visual Memory Schema. *Akagunduz, E.*, +, *TPAMI Sept. 2020* 2165-2178

Detailed Surface Geometry and Albedo Recovery from RGB-D Video under Natural Illumination. *Zuo, X.*, +, *TPAMI Oct. 2020* 2720-2734

DoubleFusion: Real-Time Capture of Human Performances with Inner Body Shapes from a Single Depth Sensor. *Yu, T.*, +, *TPAMI Oct. 2020* 2523-2539

Every Pixel Counts ++: Joint Learning of Geometry and Motion with 3D Holistic Understanding. *Luo, C.*, +, *TPAMI Oct. 2020* 2624-2641

Face Hallucination by Attentive Sequence Optimization with Reinforcement Learning. *Shi, Y.*, +, *TPAMI Nov. 2020* 2809-2824

Force from Motion: Decoding Control Force of Activity in a First-Person Video. *Park, H.S.*, +, *TPAMI March 2020* 622-635

Guest Editors' Introduction to the Special Section on Computational Photography. *Chakrabarti, A.*, +, *TPAMI July 2020* 1545-1546

Hierarchical Bayesian Inverse Lighting of Portraits with a Virtual Light Stage. *Shahlaei, D.*, +, *TPAMI April 2020* 865-879

High-Fidelity Monocular Face Reconstruction Based on an Unsupervised Model-Based Face Autoencoder. *Tewari, A.*, +, *TPAMI Feb. 2020* 357-370

Intel® RealSense™ SR300 Coded Light Depth Camera. *Zabatani, A.*, +, *TPAMI Oct. 2020* 2333-2345

Joint Face Alignment and 3D Face Reconstruction with Application to Face Recognition. *Liu, F.*, +, *TPAMI March 2020* 664-678

Large-Scale Urban Reconstruction with Tensor Clustering and Global Boundary Refinement. *Poullis, C.*, *TPAMI May 2020* 1132-1145

Learned Dynamic Guidance for Depth Image Reconstruction. *Gu, S., +, TPAMI Oct. 2020 2437-2452*

Learning and Tracking the 3D Body Shape of Freely Moving Infants from RGB-D sequences. *Hesse, N., +, TPAMI Oct. 2020 2540-2551*

Learning Raw Image Reconstruction-Aware Deep Image Compressors. *Punnapurath, A., +, TPAMI April 2020 1013-1019*

Light Field Super-Resolution Using a Low-Rank Prior and Deep Convolutional Neural Networks. *Farrugia, R.A., +, TPAMI May 2020 1162-1175*

Local Deformable 3D Reconstruction with Cartan's Connections. *Parashar, S., +, TPAMI Dec. 2020 3011-3026*

One-Bit Time-Resolved Imaging. *Bhandari, A., +, TPAMI July 2020 1630-1641*

PhlatCam: Designed Phase-Mask Based Thin Lensless Camera. *Boominathan, V., +, TPAMI July 2020 1618-1629*

Photometric Depth Super-Resolution. *Haefner, B., +, TPAMI Oct. 2020 2453-2464*

Photometric Stereo in Participating Media Using an Analytical Solution for Shape-Dependent Forward Scatter. *Fujimura, Y., +, TPAMI March 2020 708-719*

Reconstruct and Represent Video Contents for Captioning via Reinforcement Learning. *Zhang, W., +, TPAMI Dec. 2020 3088-3101*

Revisiting Projective Structure from Motion: A Robust and Efficient Incremental Solution. *Magerand, L., +, TPAMI Feb. 2020 430-443*

Semantic Face Hallucination: Super-Resolving Very Low-Resolution Face Images with Supplementary Attributes. *Yu, X., +, TPAMI Nov. 2020 2926-2943*

Shape and Reflectance Reconstruction Using Concentric Multi-Spectral Light Field. *Zhou, M., +, TPAMI July 2020 1594-1605*

Snapshot Compressive ToF+Spectral Imaging via Optimized Color-Coded Apertures. *Rueda-Chacon, H., +, TPAMI Oct. 2020 2346-2360*

SurfelMeshing: Online Surfel-Based Mesh Reconstruction. *Schops, T., +, TPAMI Oct. 2020 2494-2507*

SweepCam — Depth-Aware Lensless Imaging Using Programmable Masks. *Hua, Y., +, TPAMI July 2020 1606-1617*

UnstructuredFusion: Realtime 4D Geometry and Texture Reconstruction Using Commercial RGBD Cameras. *Xu, L., +, TPAMI Oct. 2020 2508-2522*

Weighted Manifold Alignment using Wave Kernel Signatures for Aligning Medical Image Datasets. *Clough, J.R., +, TPAMI April 2020 988-997*

Image representation

3D Human Pose Machines with Self-Supervised Learning. *Wang, K., +, TPAMI May 2020 1069-1082*

A Novel Geometric Framework on Gram Matrix Trajectories for Human Behavior Understanding. *Kacem, A., +, TPAMI Jan. 2020 1-14*

Adversarial Action Prediction Networks. *Kong, Y., +, TPAMI March 2020 539-553*

Capturing the Geometry of Object Categories from Video Supervision. *Novotny, D., +, TPAMI Feb. 2020 261-275*

Defocus Blur Detection via Multi-Stream Bottom-Top-Bottom Network. *Zhao, W., +, TPAMI Aug. 2020 1884-1897*

Feature Boosting Network For 3D Pose Estimation. *Liu, J., +, TPAMI Feb. 2020 494-501*

Hierarchical Fully Convolutional Network for Joint Atrophy Localization and Alzheimer's Disease Diagnosis Using Structural MRI. *Lian, C., +, TPAMI April 2020 880-893*

Hierarchical Gaussian Descriptors with Application to Person Re-Identification. *Matsukawa, T., +, TPAMI Sept. 2020 2179-2194*

Hierarchical LSTMs with Adaptive Attention for Visual Captioning. *Gao, L., +, TPAMI May 2020 1112-1131*

Image and Sentence Matching via Semantic Concepts and Order Learning. *Huang, Y., +, TPAMI March 2020 636-650*

Leader-Based Multi-Scale Attention Deep Architecture for Person Re-Identification. *Qian, X., +, TPAMI Feb. 2020 371-385*

Learned Dynamic Guidance for Depth Image Reconstruction. *Gu, S., +, TPAMI Oct. 2020 2437-2452*

Learning Depth with Convolutional Spatial Propagation Network. *Cheng, X., +, TPAMI Oct. 2020 2361-2379*

Learning More Universal Representations for Transfer-Learning. *Tamaazousti, Y., +, TPAMI Sept. 2020 2212-2224*

Learning with Privileged Information via Adversarial Discriminative Modality Distillation. *Garcia, N.C., +, TPAMI Oct. 2020 2581-2593*

Multilabel Deep Visual-Semantic Embedding. *Yeh, M., +, TPAMI June 2020 1530-1536*

NTU RGB+D 120: A Large-Scale Benchmark for 3D Human Activity Understanding. *Liu, J., +, TPAMI Oct. 2020 2684-2701*

Object Detection from Scratch with Deep Supervision. *Shen, Z., +, TPAMI Feb. 2020 398-412*

Progressive Representation Adaptation for Weakly Supervised Object Localization. *Li, D., +, TPAMI June 2020 1424-1438*

Real-Time RGB-D Camera Pose Estimation in Novel Scenes Using a Localisation Cascade. *Cavallari, T., +, TPAMI Oct. 2020 2465-2477*

Shape and Reflectance Reconstruction Using Concentric Multi-Spectral Light Field. *Zhou, M., +, TPAMI July 2020 1594-1605*

Skeleton-Based Online Action Prediction Using Scale Selection Network. *Liu, J., +, TPAMI June 2020 1453-1467*

Sparse Coding of Shape Trajectories for Facial Expression and Action Recognition. *Tanfous, A.B., +, TPAMI Oct. 2020 2594-2607*

Squeeze-and-Excitation Networks. *Hu, J., +, TPAMI Aug. 2020 2011-2023*

Structured Label Inference for Visual Understanding. *Nauata, N., +, TPAMI May 2020 1257-1271*

SurfelMeshing: Online Surfel-Based Mesh Reconstruction. *Schops, T., +, TPAMI Oct. 2020 2494-2507*

Unsupervised Person Re-Identification by Deep Asymmetric Metric Embedding. *Yu, H., +, TPAMI April 2020 956-973*

Unsupervised Video Matting via Sparse and Low-Rank Representation. *Zou, D., +, TPAMI June 2020 1501-1514*

Image resolution

Can We See More? Joint Frontalization and Hallucination of Unaligned Tiny Faces. *Yu, X., +, TPAMI Sept. 2020 2148-2164*

Deep Slow Motion Video Reconstruction With Hybrid Imaging System. *Paliwal, A., +, TPAMI July 2020 1557-1569*

Efficient Graph Cut Optimization for Full CRFs with Quantized Edges. *Vekler, O., TPAMI April 2020 1005-1012*

Face Hallucination by Attentive Sequence Optimization with Reinforcement Learning. *Shi, Y., +, TPAMI Nov. 2020 2809-2824*

Hierarchical Surface Prediction. *Hane, C., +, TPAMI June 2020 1348-1361*

Intel® RealSense™ SR300 Coded Light Depth Camera. *Zabatani, A., +, TPAMI Oct. 2020 2333-2345*

Learned Dynamic Guidance for Depth Image Reconstruction. *Gu, S., +, TPAMI Oct. 2020 2437-2452*

Light Field Super-Resolution Using a Low-Rank Prior and Deep Convolutional Neural Networks. *Farrugia, R.A., +, TPAMI May 2020 1162-1175*

One-Bit Time-Resolved Imaging. *Bhandari, A., +, TPAMI July 2020 1630-1641*

PhlatCam: Designed Phase-Mask Based Thin Lensless Camera. *Boominathan, V., +, TPAMI July 2020 1618-1629*

Photometric Depth Super-Resolution. *Haefner, B., +, TPAMI Oct. 2020 2453-2464*

Pixel Transposed Convolutional Networks. *Gao, H., +, TPAMI May 2020 1218-1227*

RefineNet: Multi-Path Refinement Networks for Dense Prediction. *Lin, G., +, TPAMI May 2020 1228-1242*

Single Image Dehazing Using Haze-Lines. *Berman, D., +, TPAMI March 2020 720-734*

Snapshot Compressive ToF+Spectral Imaging via Optimized Color-Coded Apertures. *Rueda-Chacon, H., +, TPAMI Oct. 2020 2346-2360*

SweepCam — Depth-Aware Lensless Imaging Using Programmable Masks. *Hua, Y., +, TPAMI July 2020 1606-1617*

Image restoration

A Disocclusion Inpainting Framework for Depth-Based View Synthesis. *Luo, G., +, TPAMI June 2020 1289-1302*

Defocus Blur Detection via Multi-Stream Bottom-Top-Bottom Network. *Zhao, W., +, TPAMI Aug. 2020 1884-1897*

Face Hallucination by Attentive Sequence Optimization with Reinforcement Learning. *Shi, Y.*, +, *TPAMI Nov. 2020 2809-2824*

Joint Rain Detection and Removal from a Single Image with Contextualized Deep Networks. *Yang, W.*, +, *TPAMI June 2020 1377-1393*

Real-World Image Denoising with Deep Boosting. *Chen, C.*, +, *TPAMI Dec. 2020 3071-3087*

Single Image Dehazing Using Haze-Lines. *Berman, D.*, +, *TPAMI March 2020 720-734*

Image retrieval

Asymmetric Mapping Quantization for Nearest Neighbor Search. *Hong, W.*, +, *TPAMI July 2020 1783-1790*

Deep Metric Learning with BIER: Boosting Independent Embeddings Robustly. *Opitz, M.*, +, *TPAMI Feb. 2020 276-290*

Deep Variational and Structural Hashing. *Liong, V.E.*, +, *TPAMI March 2020 580-595*

Learning Visual Instance Retrieval from Failure: Efficient Online Local Metric Adaptation from Negative Samples. *Zhou, J.*, +, *TPAMI Nov. 2020 2858-2873*

Image sampling

Can We See More? Joint Frontalization and Hallucination of Unaligned Tiny Faces. *Yu, X.*, +, *TPAMI Sept. 2020 2148-2164*

Cooperative Training of Descriptor and Generator Networks. *Xie, J.*, +, *TPAMI Jan. 2020 27-45*

High-Fidelity Monocular Face Reconstruction Based on an Unsupervised Model-Based Face Autoencoder. *Tewari, A.*, +, *TPAMI Feb. 2020 357-370*

Light Field Super-Resolution Using a Low-Rank Prior and Deep Convolutional Neural Networks. *Farrugia, R.A.*, +, *TPAMI May 2020 1162-1175*

Photometric Depth Super-Resolution. *Haefner, B.*, +, *TPAMI Oct. 2020 2453-2464*

Pixel Transposed Convolutional Networks. *Gao, H.*, +, *TPAMI May 2020 1218-1227*

Image segmentation

A Curriculum Domain Adaptation Approach to the Semantic Segmentation of Urban Scenes. *Zhang, Y.*, +, *TPAMI Aug. 2020 1823-1841*

A Hybrid RNN-HMM Approach for Weakly Supervised Temporal Action Segmentation. *Kuehne, H.*, +, *TPAMI April 2020 765-779*

Clouds of Oriented Gradients for 3D Detection of Objects, Surfaces, and Indoor Scene Layouts. *Ren, Z.*, +, *TPAMI Oct. 2020 2670-2683*

Confidence Propagation through CNNs for Guided Sparse Depth Regression. *Eldesokey, A.*, +, *TPAMI Oct. 2020 2423-2436*

Deep Imbalanced Learning for Face Recognition and Attribute Prediction. *Huang, C.*, +, *TPAMI Nov. 2020 2781-2794*

Defocus Blur Detection via Multi-Stream Bottom-Top-Bottom Network. *Zhao, W.*, +, *TPAMI Aug. 2020 1884-1897*

Efficient Graph Cut Optimization for Full CRFs with Quantized Edges. *Veksler, O.*, *TPAMI April 2020 1005-1012*

Every Pixel Counts ++: Joint Learning of Geometry and Motion with 3D Holistic Understanding. *Luo, C.*, +, *TPAMI Oct. 2020 2624-2641*

Focal Loss for Dense Object Detection. *Lin, T.*, +, *TPAMI Feb. 2020 318-327*

Guided Attention Inference Network. *Li, K.*, +, *TPAMI Dec. 2020 2996-3010*

Inferring Salient Objects from Human Fixations. *Wang, W.*, +, *TPAMI Aug. 2020 1913-1927*

Joint Segmentation and Path Classification of Curvilinear Structures. *Mosinska, A.*, +, *TPAMI June 2020 1515-1521*

Joint Task-Recursive Learning for RGB-D Scene Understanding. *Zhang, Z.*, +, *TPAMI Oct. 2020 2608-2623*

Large-Scale Urban Reconstruction with Tensor Clustering and Global Boundary Refinement. *Poullis, C.*, *TPAMI May 2020 1132-1145*

Learning Depth with Convolutional Spatial Propagation Network. *Cheng, X.*, +, *TPAMI Oct. 2020 2361-2379*

Mask R-CNN. *He, K.*, +, *TPAMI Feb. 2020 386-397*

Motion Segmentation & Multiple Object Tracking by Correlation Co-Clustering. *Keuper, M.*, +, *TPAMI Jan. 2020 140-153*

Motion-Guided Cascaded Refinement Network for Video Object Segmentation. *Hu, P.*, +, *TPAMI Aug. 2020 1957-1967*

Object Detection in Videos by High Quality Object Linking. *Tang, P.*, +, *TPAMI May 2020 1272-1278*

On the Robustness of Semantic Segmentation Models to Adversarial Attacks. *Arnab, A.*, +, *TPAMI Dec. 2020 3040-3053*

One Shot Segmentation: Unifying Rigid Detection and Non-Rigid Segmentation Using Elastic Regularization. *Nascimento, J.C.*, +, *TPAMI Dec. 2020 3054-3070*

Online Meta Adaptation for Fast Video Object Segmentation. *Xiao, H.*, +, *TPAMI May 2020 1205-1217*

Pixel Transposed Convolutional Networks. *Gao, H.*, +, *TPAMI May 2020 1218-1227*

Progressive Representation Adaptation for Weakly Supervised Object Localization. *Li, D.*, +, *TPAMI June 2020 1424-1438*

RefineNet: Multi-Path Refinement Networks for Dense Prediction. *Lin, G.*, +, *TPAMI May 2020 1228-1242*

ROAM: A Rich Object Appearance Model with Application to Rotoscoping. *Perez-Rua, J.*, +, *TPAMI Aug. 2020 1996-2010*

Semi-Supervised Adversarial Monocular Depth Estimation. *Ji, R.*, +, *TPAMI Oct. 2020 2410-2422*

SPFTN: A Joint Learning Framework for Localizing and Segmenting Objects in Weakly Labeled Videos. *Zhang, D.*, +, *TPAMI Feb. 2020 475-489*

Synthesizing Supervision for Learning Deep Saliency Network without Human Annotation. *Zhang, D.*, +, *TPAMI July 2020 1755-1769*

The ApolloScape Open Dataset for Autonomous Driving and Its Application. *Huang, X.*, +, *TPAMI Oct. 2020 2702-2719*

Unsupervised Video Matting via Sparse and Low-Rank Representation. *Zou, D.*, +, *TPAMI June 2020 1501-1514*

Zig-Zag Network for Semantic Segmentation of RGB-D Images. *Lin, D.*, +, *TPAMI Oct. 2020 2642-2655*

Image sensors

Clouds of Oriented Gradients for 3D Detection of Objects, Surfaces, and Indoor Scene Layouts. *Ren, Z.*, +, *TPAMI Oct. 2020 2670-2683*

Distance Surface for Event-Based Optical Flow. *Almatrafi, M.*, +, *TPAMI July 2020 1547-1556*

Globally-Optimal Inlier Set Maximisation for Camera Pose and Correspondence Estimation. *Campbell, D.*, +, *TPAMI Feb. 2020 328-342*

Intel® RealSense™ SR300 Coded Light Depth Camera. *Zabatani, A.*, +, *TPAMI Oct. 2020 2333-2345*

Joint Task-Recursive Learning for RGB-D Scene Understanding. *Zhang, Z.*, +, *TPAMI Oct. 2020 2608-2623*

Learned Dynamic Guidance for Depth Image Reconstruction. *Gu, S.*, +, *TPAMI Oct. 2020 2437-2452*

Light Field Super-Resolution Using a Low-Rank Prior and Deep Convolutional Neural Networks. *Farrugia, R.A.*, +, *TPAMI May 2020 1162-1175*

Neural Sensors: Learning Pixel Exposures for HDR Imaging and Video Compressive Sensing With Programmable Sensors. *Martel, J.N.P.*, +, *TPAMI July 2020 1642-1653*

Real-Time RGB-D Camera Pose Estimation in Novel Scenes Using a Relocalisation Cascade. *Cavallari, T.*, +, *TPAMI Oct. 2020 2465-2477*

Rolling Shutter Camera Absolute Pose. *Albl, C.*, +, *TPAMI June 2020 1439-1452*

Semi-Calibrated Photometric Stereo. *Cho, D.*, +, *TPAMI Jan. 2020 232-245*

Snapshot Compressive ToF+Spectral Imaging via Optimized Color-Coded Apertures. *Rueda-Chacon, H.*, +, *TPAMI Oct. 2020 2346-2360*

SweepCam — Depth-Aware Lensless Imaging Using Programmable Masks. *Hua, Y.*, +, *TPAMI July 2020 1606-1617*

The ApolloScape Open Dataset for Autonomous Driving and Its Application. *Huang, X.*, +, *TPAMI Oct. 2020 2702-2719*

Unsupervised Learning of a Hierarchical Spiking Neural Network for Optical Flow Estimation: From Events to Global Motion Perception. *Paredes-Valles, F.*, +, *TPAMI Aug. 2020 2051-2064*

Image sequences

A Novel Geometric Framework on Gram Matrix Trajectories for Human Behavior Understanding. *Kacem, A.*, +, *TPAMI Jan. 2020 1-14*

Capturing the Geometry of Object Categories from Video Supervision. *Novotny, D.*, +, *TPAMI Feb. 2020 261-275*

Detailed Surface Geometry and Albedo Recovery from RGB-D Video under Natural Illumination. *Zuo, X.*, +, *TPAMI Oct. 2020 2720-2734*

- Distance Surface for Event-Based Optical Flow. *Almatrafi, M.*, +, *TPAMI July 2020 1547-1556*
- DoubleFusion: Real-Time Capture of Human Performances with Inner Body Shapes from a Single Depth Sensor. *Yu, T.*, +, *TPAMI Oct. 2020 2523-2539*
- Every Pixel Counts ++: Joint Learning of Geometry and Motion with 3D Holistic Understanding. *Luo, C.*, +, *TPAMI Oct. 2020 2624-2641*
- Light Field Super-Resolution Using a Low-Rank Prior and Deep Convolutional Neural Networks. *Farrugia, R.A.*, +, *TPAMI May 2020 1162-1175*
- Models Matter, So Does Training: An Empirical Study of CNNs for Optical Flow Estimation. *Sun, D.*, +, *TPAMI June 2020 1408-1423*
- Motion-Guided Cascaded Refinement Network for Video Object Segmentation. *Hu, P.*, +, *TPAMI Aug. 2020 1957-1967*
- Object Detection in Videos by High Quality Object Linking. *Tang, P.*, +, *TPAMI May 2020 1272-1278*
- Online Meta Adaptation for Fast Video Object Segmentation. *Xiao, H.*, +, *TPAMI May 2020 1205-1217*
- Recurrent Temporal Aggregation Framework for Deep Video Inpainting. *Kim, D.*, +, *TPAMI May 2020 1038-1052*
- Skeleton-Based Online Action Prediction Using Scale Selection Network. *Liu, J.*, +, *TPAMI June 2020 1453-1467*
- Sparse Coding of Shape Trajectories for Facial Expression and Action Recognition. *Tanfous, A.B.*, +, *TPAMI Oct. 2020 2594-2607*
- UnstructuredFusion: Realtime 4D Geometry and Texture Reconstruction Using Commercial RGBD Cameras. *Xu, L.*, +, *TPAMI Oct. 2020 2508-2522*
- Unsupervised Learning of a Hierarchical Spiking Neural Network for Optical Flow Estimation: From Events to Global Motion Perception. *Paredes-Valles, F.*, +, *TPAMI Aug. 2020 2051-2064*
- Image texture**
- Adversarial Cross-Spectral Face Completion for NIR-VIS Face Recognition. *He, R.*, +, *TPAMI May 2020 1025-1037*
- Bound and Conquer: Improving Triangulation by Enforcing Consistency. *Scholefield, A.*, +, *TPAMI Sept. 2020 2321-2326*
- Hierarchical Bayesian Inverse Lighting of Portraits with a Virtual Light Stage. *Shahlaei, D.*, +, *TPAMI April 2020 865-879*
- Hierarchical Gaussian Descriptors with Application to Person Re-Identification. *Matsukawa, T.*, +, *TPAMI Sept. 2020 2179-2194*
- Intel® RealSense™ SR300 Coded Light Depth Camera. *Zabatani, A.*, +, *TPAMI Oct. 2020 2333-2345*
- UnstructuredFusion: Realtime 4D Geometry and Texture Reconstruction Using Commercial RGBD Cameras. *Xu, L.*, +, *TPAMI Oct. 2020 2508-2522*
- Image watermarking**
- Hiding Images within Images. *Baluja, S.*, *TPAMI July 2020 1685-1697*
- Indexing**
- Learning to Index for Nearest Neighbor Search. *Chiu, C.*, +, *TPAMI Aug. 2020 1942-1956*
- Inertial navigation**
- Unsupervised Deep Visual-Inertial Odometry with Online Error Correction for RGB-D Imagery. *Shamwell, E.J.*, +, *TPAMI Oct. 2020 2478-2493*
- Inference mechanisms**
- Context-Aware Query Selection for Active Learning in Event Recognition. *Hasan, M.*, +, *TPAMI March 2020 554-567*
- Learning Reasoning-Decision Networks for Robust Face Alignment. *Liu, H.*, +, *TPAMI March 2020 679-693*
- Structured Label Inference for Visual Understanding. *Nauata, N.*, +, *TPAMI May 2020 1257-1271*
- Towards Efficient U-Nets: A Coupled and Quantized Approach. *Tang, Z.*, +, *TPAMI Aug. 2020 2038-2050*
- Infrared imaging**
- A Comprehensive Database for Benchmarking Imaging Systems. *Panetta, K.*, +, *TPAMI March 2020 509-520*
- Interactive systems**
- Pictionary-Style Word Guessing on Hand-Drawn Object Sketches: Dataset, Analysis and Deep Network Models. *Sarvadevabhatla, R.K.*, +, *TPAMI Jan. 2020 221-231*
- Internet**
- Ambiguity-Free Radiometric Calibration for Internet Photo Collections. *Mo, Z.*, +, *TPAMI July 2020 1670-1684*
- Shared Multi-View Data Representation for Multi-Domain Event Detection. *Yang, Z.*, +, *TPAMI May 2020 1243-1256*
- Interpolation**
- A Temporally-Aware Interpolation Network for Video Frame Inpainting. *Szeto, R.*, +, *TPAMI May 2020 1053-1068*
- Deep Slow Motion Video Reconstruction With Hybrid Imaging System. *Paliwal, A.*, +, *TPAMI July 2020 1557-1569*
- Inverse problems**
- Inverse Visual Question Answering: A New Benchmark and VQA Diagnosis Tool. *Liu, F.*, +, *TPAMI Feb. 2020 460-474*
- On the Convergence of Learning-Based Iterative Methods for Nonconvex Inverse Problems. *Liu, R.*, +, *TPAMI Dec. 2020 3027-3039*
- Iterative algorithms**
- On the Convergence of Learning-Based Iterative Methods for Nonconvex Inverse Problems. *Liu, R.*, +, *TPAMI Dec. 2020 3027-3039*
- Iterative methods**
- Absent Multiple Kernel Learning Algorithms. *Liu, X.*, +, *TPAMI June 2020 1303-1316*
- Approximate Sparse Multinomial Logistic Regression for Classification. *Kayabol, K.*, *TPAMI Feb. 2020 490-493*
- Cooperative Training of Descriptor and Generator Networks. *Xie, J.*, +, *TPAMI Jan. 2020 27-45*
- Deep Self-Evolution Clustering. *Chang, J.*, +, *TPAMI April 2020 809-823*
- Discrete-Continuous Transformation Matching for Dense Semantic Correspondence. *Kim, S.*, +, *TPAMI Jan. 2020 59-73*
- Multiple Kernelk-Means with Incomplete Kernels. *Liu, X.*, +, *TPAMI May 2020 1191-1204*
- Numerical Quadrature for Probabilistic Policy Search. *Vinogradskaya, J.*, +, *TPAMI Jan. 2020 164-175*
- On Multi-Layer Basis Pursuit, Efficient Algorithms and Convolutional Neural Networks. *Sulam, J.*, +, *TPAMI Aug. 2020 1968-1980*
- On the Convergence of Learning-Based Iterative Methods for Nonconvex Inverse Problems. *Liu, R.*, +, *TPAMI Dec. 2020 3027-3039*
- PCL: Proposal Cluster Learning for Weakly Supervised Object Detection. *Tang, P.*, +, *TPAMI Jan. 2020 176-191*
- PhlatCam: Designed Phase-Mask Based Thin Lensless Camera. *Boominathan, V.*, +, *TPAMI July 2020 1618-1629*
- Properties of Mean Shift. *Yamasaki, R.*, +, *TPAMI Sept. 2020 2273-2286*
- ROAM: A Rich Object Appearance Model with Application to Rotoscoping. *Perez-Rua, J.*, +, *TPAMI Aug. 2020 1996-2010*
- Tensor Graphical Model: Non-Convex Optimization and Statistical Inference. *Lyu, X.*, +, *TPAMI Aug. 2020 2024-2037*
- Towards Efficient U-Nets: A Coupled and Quantized Approach. *Tang, Z.*, +, *TPAMI Aug. 2020 2038-2050*
- K**
- Kernel**
- Multivariate Extension of Matrix-Based Rényi's α -Order Entropy Functional. *Yu, S.*, +, *TPAMI Nov. 2020 2960-2966*
- Kinematics**
- iDeLog: Iterative Dual Spatial and Kinematic Extraction of Sigma-Lognormal Parameters. *Ferrer, M.A.*, +, *TPAMI Jan. 2020 114-125*
- L**
- Language translation**
- Neural Machine Translation with Deep Attention. *Zhang, B.*, +, *TPAMI Jan. 2020 154-163*
- Laplace equations**
- Local-Aggregation Graph Networks. *Chang, J.*, +, *TPAMI Nov. 2020 2874-2886*
- Learning (artificial intelligence)**
- 3D Human Pose Machines with Self-Supervised Learning. *Wang, K.*, +, *TPAMI May 2020 1069-1082*

- A Comprehensive Database for Benchmarking Imaging Systems. *Panetta, K., +, TPAMI March 2020 509-520*
- A Curriculum Domain Adaptation Approach to the Semantic Segmentation of Urban Scenes. *Zhang, Y., +, TPAMI Aug. 2020 1823-1841*
- A Novel Dynamic Model Capturing Spatial and Temporal Patterns for Facial Expression Analysis. *Wang, S., +, TPAMI Sept. 2020 2082-2095*
- Absent Multiple Kernel Learning Algorithms. *Liu, X., +, TPAMI June 2020 1303-1316*
- ADMM-CSNet: A Deep Learning Approach for Image Compressive Sensing. *Yang, Y., +, TPAMI March 2020 521-538*
- Adversarial Action Prediction Networks. *Kong, Y., +, TPAMI March 2020 539-553*
- Adversarial Learning of Structure-Aware Fully Convolutional Networks for Landmark Localization. *Chen, Y., +, TPAMI July 2020 1654-1669*
- Age from Faces in the Deep Learning Revolution. *Carletti, V., +, TPAMI Sept. 2020 2113-2132*
- Approximate Fisher Information Matrix to Characterize the Training of Deep Neural Networks. *Liao, Z., +, TPAMI Jan. 2020 15-26*
- Approximate Sparse Multinomial Logistic Regression for Classification. *Kayabol, K., TPAMI Feb. 2020 490-493*
- Automated Video Face Labelling for Films and TV Material. *Parkhi, O.M., +, TPAMI April 2020 780-792*
- Back to the Future: Radial Basis Function Network Revisited. *Que, Q., +, TPAMI Aug. 2020 1856-1867*
- Border-Peeling Clustering. *Averbuch-Elor, H., +, TPAMI July 2020 1791-1797*
- Clouds of Oriented Gradients for 3D Detection of Objects, Surfaces, and Indoor Scene Layouts. *Ren, Z., +, TPAMI Oct. 2020 2670-2683*
- Confidence Propagation through CNNs for Guided Sparse Depth Regression. *Eldesokey, A., +, TPAMI Oct. 2020 2423-2436*
- Context-Aware Query Selection for Active Learning in Event Recognition. *Hasan, M., +, TPAMI March 2020 554-567*
- Cooperative Training of Descriptor and Generator Networks. *Xie, J., +, TPAMI Jan. 2020 27-45*
- Deep Metric Learning with BIER: Boosting Independent Embeddings Robustly. *Opitz, M., +, TPAMI Feb. 2020 276-290*
- Deep Neural Network Compression by In-Parallel Pruning-Quantization. *Tung, F., +, TPAMI March 2020 568-579*
- Deep Self-Evolution Clustering. *Chang, J., +, TPAMI April 2020 809-823*
- Deep Slow Motion Video Reconstruction With Hybrid Imaging System. *Paliwal, A., +, TPAMI July 2020 1557-1569*
- Deep Variational and Structural Hashing. *Liong, V.E., +, TPAMI March 2020 580-595*
- Defining Image Memorability Using the Visual Memory Schema. *Akagunduz, E., +, TPAMI Sept. 2020 2165-2178*
- Defocus Blur Detection via Multi-Stream Bottom-Top-Bottom Network. *Zhao, W., +, TPAMI Aug. 2020 1884-1897*
- Denoising Autoencoders for Overgeneralization in Neural Networks. *Spigler, G., TPAMI April 2020 998-1004*
- End-to-End Active Object Tracking and Its Real-World Deployment via Reinforcement Learning. *Luo, W., +, TPAMI June 2020 1317-1332*
- Every Pixel Counts ++: Joint Learning of Geometry and Motion with 3D Holistic Understanding. *Luo, C., +, TPAMI Oct. 2020 2624-2641*
- Fast Cross-Validation for Kernel-Based Algorithms. *Liu, Y., +, TPAMI May 2020 1083-1096*
- First-Person Activity Forecasting from Video with Online Inverse Reinforcement Learning. *Rhinehart, N., +, TPAMI Feb. 2020 304-317*
- Focal Loss for Dense Object Detection. *Lin, T., +, TPAMI Feb. 2020 318-327*
- Generalized Feedback Loop for Joint Hand-Object Pose Estimation. *Oberweger, M., +, TPAMI Aug. 2020 1898-1912*
- Hiding Images within Images. *Baluja, S., TPAMI July 2020 1685-1697*
- Hierarchical Fully Convolutional Network for Joint Atrophy Localization and Alzheimer's Disease Diagnosis Using Structural MRI. *Lian, C., +, TPAMI April 2020 880-893*
- Image and Sentence Matching via Semantic Concepts and Order Learning. *Huang, Y., +, TPAMI March 2020 636-650*
- Incremental Learning Through Deep Adaptation. *Rosenfeld, A., +, TPAMI March 2020 651-663*
- Inferring Salient Objects from Human Fixations. *Wang, W., +, TPAMI Aug. 2020 1913-1927*
- Inverse Visual Question Answering: A New Benchmark and VQA Diagnosis Tool. *Liu, F., +, TPAMI Feb. 2020 460-474*
- Joint Rain Detection and Removal from a Single Image with Contextualized Deep Networks. *Yang, W., +, TPAMI June 2020 1377-1393*
- Joint Task-Recursive Learning for RGB-D Scene Understanding. *Zhang, Z., +, TPAMI Oct. 2020 2608-2623*
- LCR-Net++: Multi-Person 2D and 3D Pose Detection in Natural Images. *Rogez, G., +, TPAMI May 2020 1146-1161*
- Leader-Based Multi-Scale Attention Deep Architecture for Person Re-Identification. *Qian, X., +, TPAMI Feb. 2020 371-385*
- Learned Dynamic Guidance for Depth Image Reconstruction. *Gu, S., +, TPAMI Oct. 2020 2437-2452*
- Learning and Tracking the 3D Body Shape of Freely Moving Infants from RGB-D sequences. *Hesse, N., +, TPAMI Oct. 2020 2540-2551*
- Learning Compact Features for Human Activity Recognition Via Probabilistic First-Take-All. *Ye, J., +, TPAMI Jan. 2020 126-139*
- Learning Complexity-Aware Cascades for Pedestrian Detection. *Cai, Z., +, TPAMI Sept. 2020 2195-2211*
- Learning Depth with Convolutional Spatial Propagation Network. *Cheng, X., +, TPAMI Oct. 2020 2361-2379*
- Learning Local Metrics and Influential Regions for Classification. *Dong, M., +, TPAMI June 2020 1522-1529*
- Learning More Universal Representations for Transfer-Learning. *Tamaazousti, Y., +, TPAMI Sept. 2020 2212-2224*
- Learning Multiple Local Metrics: Global Consideration Helps. *Ye, H., +, TPAMI July 2020 1698-1712*
- Learning of Gaussian Processes in Distributed and Communication Limited Systems. *Tavassolipour, M., +, TPAMI Aug. 2020 1928-1941*
- Learning Raw Image Reconstruction-Aware Deep Image Compressors. *Punnappurath, A., +, TPAMI April 2020 1013-1019*
- Learning Reasoning-Decision Networks for Robust Face Alignment. *Liu, H., +, TPAMI March 2020 679-693*
- Learning Representations for Neural Network-Based Classification Using the Information Bottleneck Principle. *Amjad, R.A., +, TPAMI Sept. 2020 2225-2239*
- Learning to Index for Nearest Neighbor Search. *Chiu, C., +, TPAMI Aug. 2020 1942-1956*
- Learning with Privileged Information via Adversarial Discriminative Modality Distillation. *Garcia, N.C., +, TPAMI Oct. 2020 2581-2593*
- Light Field Super-Resolution Using a Low-Rank Prior and Deep Convolutional Neural Networks. *Farrugia, R.A., +, TPAMI May 2020 1162-1175*
- Local-LDA: Open-Ended Learning of Latent Topics for 3D Object Recognition. *Kasaei, S.H., +, TPAMI Oct. 2020 2567-2580*
- Logistic Regression Confined by Cardinality-Constrained Sample and Feature Selection. *Adeli, E., +, TPAMI July 2020 1713-1728*
- Motion-Guided Cascaded Refinement Network for Video Object Segmentation. *Hu, P., +, TPAMI Aug. 2020 1957-1967*
- Multilabel Deep Visual-Semantic Embedding. *Yeh, M., +, TPAMI June 2020 1530-1536*
- Multiple Kernelk-Means with Incomplete Kernels. *Liu, X., +, TPAMI May 2020 1191-1204*
- NTU RGB+D 120: A Large-Scale Benchmark for 3D Human Activity Understanding. *Liu, J., +, TPAMI Oct. 2020 2684-2701*
- Object Detection from Scratch with Deep Supervision. *Shen, Z., +, TPAMI Feb. 2020 398-412*
- On Multi-Layer Basis Pursuit, Efficient Algorithms and Convolutional Neural Networks. *Sulam, J., +, TPAMI Aug. 2020 1968-1980*
- Online Meta Adaptation for Fast Video Object Segmentation. *Xiao, H., +, TPAMI May 2020 1205-1217*
- Persistence Paths and Signature Features in Topological Data Analysis. *Chevyrev, I., +, TPAMI Jan. 2020 192-202*
- Perspective-Adaptive Convolutions for Scene Parsing. *Zhang, R., +, TPAMI April 2020 909-924*

- Ranking-Preserving Cross-Source Learning for Image Retargeting Quality Assessment. *Liu, Y., +, TPAMI July 2020 1798-1805*
- Real-Time RGB-D Camera Pose Estimation in Novel Scenes Using a Localisation Cascade. *Cavallari, T., +, TPAMI Oct. 2020 2465-2477*
- Recognizing Material Properties from Images. *Schwartz, G., +, TPAMI Aug. 2020 1981-1995*
- Recurrent Temporal Aggregation Framework for Deep Video Inpainting. *Kim, D., +, TPAMI May 2020 1038-1052*
- Robust RGB-D Face Recognition Using Attribute-Aware Loss. *Jiang, L., +, TPAMI Oct. 2020 2552-2566*
- Semi-Supervised Adversarial Monocular Depth Estimation. *Ji, R., +, TPAMI Oct. 2020 2410-2422*
- Significance of Softmax-Based Features in Comparison to Distance Metric Learning-Based Features. *Horiguchi, S., +, TPAMI May 2020 1279-1285*
- Skeleton-Based Online Action Prediction Using Scale Selection Network. *Liu, J., +, TPAMI June 2020 1453-1467*
- Sparse Coding of Shape Trajectories for Facial Expression and Action Recognition. *Tanfous, A.B., +, TPAMI Oct. 2020 2594-2607*
- SPFTN: A Joint Learning Framework for Localizing and Segmenting Objects in Weakly Labeled Videos. *Zhang, D., +, TPAMI Feb. 2020 475-489*
- Structured Label Inference for Visual Understanding. *Nauata, N., +, TPAMI May 2020 1257-1271*
- Structured Low-Rank Matrix Factorization: Global Optimality, Algorithms, and Applications. *Haefele, B.D., +, TPAMI June 2020 1468-1482*
- The ApolloScape Open Dataset for Autonomous Driving and Its Application. *Huang, X., +, TPAMI Oct. 2020 2702-2719*
- The Lovász Hinge: A Novel Convex Surrogate for Submodular Losses. *Yu, J., +, TPAMI March 2020 735-748*
- Tracking-by-Fusion via Gaussian Process Regression Extended to Transfer Learning. *Gao, J., +, TPAMI April 2020 939-955*
- Training Faster by Separating Modes of Variation in Batch-Normalized Models. *Kalayeh, M.M., +, TPAMI June 2020 1483-1500*
- Unsupervised Deep Visual-Inertial Odometry with Online Error Correction for RGB-D Imagery. *Shamwell, E.J., +, TPAMI Oct. 2020 2478-2493*
- Unsupervised Domain Adaptation for Depth Prediction from Images. *Tonioni, A., +, TPAMI Oct. 2020 2396-2409*
- Learning systems**
- Numerical Quadrature for Probabilistic Policy Search. *Vinogradska, J., +, TPAMI Jan. 2020 164-175*
- On the Convergence of Learning-Based Iterative Methods for Nonconvex Inverse Problems. *Liu, R., +, TPAMI Dec. 2020 3027-3039*
- On the Convergence of Learning-Based Iterative Methods for Nonconvex Inverse Problems. *Liu, R., +, TPAMI Dec. 2020 3027-3039*
- Trace Quotient with Sparsity Priors for Learning Low Dimensional Image Representations. *Wei, X., +, TPAMI Dec. 2020 3119-3135*
- Vocabulary-Informed Zero-Shot and Open-Set Learning. *Fu, Y., +, TPAMI Dec. 2020 3136-3152*
- Least squares approximations**
- Revisiting Projective Structure from Motion: A Robust and Efficient Incremental Solution. *Magerand, L., +, TPAMI Feb. 2020 430-443*
- Light sources**
- Shape and Reflectance Reconstruction Using Concentric Multi-Spectral Light Field. *Zhou, M., +, TPAMI July 2020 1594-1605*
- Lighting**
- Detailed Surface Geometry and Albedo Recovery from RGB-D Video under Natural Illumination. *Zuo, X., +, TPAMI Oct. 2020 2720-2734*
- Hierarchical Bayesian Inverse Lighting of Portraits with a Virtual Light Stage. *Shahlaei, D., +, TPAMI April 2020 865-879*
- Semi-Calibrated Photometric Stereo. *Cho, D., +, TPAMI Jan. 2020 232-245*
- Linear programming**
- A Functional Representation for Graph Matching. *Wang, F., +, TPAMI Nov. 2020 2737-2754*
- Automated Video Face Labelling for Films and TV Material. *Parkhi, O.M., +, TPAMI April 2020 780-792*
- Log normal distribution**
- iDeLog: Iterative Dual Spatial and Kinematic Extraction of Sigma-Lognormal Parameters. *Ferrer, M.A., +, TPAMI Jan. 2020 114-125*
- M**
- Machine learning**
- Multivariate Extension of Matrix-Based Rényi's α -Order Entropy Functional. *Yu, S., +, TPAMI Nov. 2020 2960-2966*
- Trace Quotient with Sparsity Priors for Learning Low Dimensional Image Representations. *Wei, X., +, TPAMI Dec. 2020 3119-3135*
- Machine learning algorithms**
- Trace Quotient with Sparsity Priors for Learning Low Dimensional Image Representations. *Wei, X., +, TPAMI Dec. 2020 3119-3135*
- Magnetic resonance imaging**
- ADMM-CSNet: A Deep Learning Approach for Image Compressive Sensing. *Yang, Y., +, TPAMI March 2020 521-538*
- Markov processes**
- Cooperative Training of Descriptor and Generator Networks. *Xie, J., +, TPAMI Jan. 2020 27-45*
- Extracting Geometric Structures in Images with Delaunay Point Processes. *Favreau, J., +, TPAMI April 2020 837-850*
- Learning Reasoning-Decision Networks for Robust Face Alignment. *Liu, H., +, TPAMI March 2020 679-693*
- Masks**
- PhlatCam: Designed Phase-Mask Based Thin Lensless Camera. *Boominathan, V., +, TPAMI July 2020 1618-1629*
- SweepCam — Depth-Aware Lensless Imaging Using Programmable Masks. *Hua, Y., +, TPAMI July 2020 1606-1617*
- Mathematical model**
- Gravitational Laws of Focus of Attention. *Zanca, D., +, TPAMI Dec. 2020 2983-2995*
- Local Deformable 3D Reconstruction with Cartan's Connections. *Parashar, S., +, TPAMI Dec. 2020 3011-3026*
- Recomputation of the Dense Layers for Performance Improvement of DCNN. *Yang, Y., +, TPAMI Nov. 2020 2912-2925*
- Mathematics computing**
- The Gap of Semantic Parsing: A Survey on Automatic Math Word Problem Solvers. *Zhang, D., +, TPAMI Sept. 2020 2287-2305*
- Matrix algebra**
- A Novel Geometric Framework on Gram Matrix Trajectories for Human Behavior Understanding. *Kacem, A., +, TPAMI Jan. 2020 1-14*
- Aggregated Wasserstein Distance and State Registration for Hidden Markov Models. *Chen, Y., +, TPAMI Sept. 2020 2133-2147*
- Approximate Fisher Information Matrix to Characterize the Training of Deep Neural Networks. *Liao, Z., +, TPAMI Jan. 2020 15-26*
- Globally Optimal Inlier Set Maximization for Atlanta World Understanding. *Joo, K., +, TPAMI Oct. 2020 2656-2669*
- Heterogeneous Recommendation via Deep Low-Rank Sparse Collective Factorization. *Jiang, S., +, TPAMI May 2020 1097-1111*
- Hierarchical Gaussian Descriptors with Application to Person Re-Identification. *Matsukawa, T., +, TPAMI Sept. 2020 2179-2194*
- Joint Face Alignment and 3D Face Reconstruction with Application to Face Recognition. *Liu, F., +, TPAMI March 2020 664-678*
- Multiple Kernel-Means with Incomplete Kernels. *Liu, X., +, TPAMI May 2020 1191-1204*
- Subspace Clustering via Good Neighbors. *Yang, J., +, TPAMI June 2020 1537-1544*
- Tensor Graphical Model: Non-Convex Optimization and Statistical Inference. *Lyu, X., +, TPAMI Aug. 2020 2024-2037*
- Tensor Robust Principal Component Analysis with a New Tensor Nuclear Norm. *Lu, C., +, TPAMI April 2020 925-938*
- Matrix decomposition**
- A Simple and Fast Algorithm for L1-Norm Kernel PCA. *Kim, C., +, TPAMI Aug. 2020 1842-1855*
- Heterogeneous Recommendation via Deep Low-Rank Sparse Collective Factorization. *Jiang, S., +, TPAMI May 2020 1097-1111*
- Structured Low-Rank Matrix Factorization: Global Optimality, Algorithms, and Applications. *Haefele, B.D., +, TPAMI June 2020 1468-1482*
- Maximum likelihood estimation**
- Aggregated Wasserstein Distance and State Registration for Hidden Markov Models. *Chen, Y., +, TPAMI Sept. 2020 2133-2147*

Bayesian Neural Networks with Weight Sharing Using Dirichlet Processes. Roth, W., +, *TPAMI Jan. 2020* 246-252

Cooperative Training of Descriptor and Generator Networks. Xie, J., +, *TPAMI Jan. 2020* 27-45

Tensor Graphical Model: Non-Convex Optimization and Statistical Inference. Lyu, X., +, *TPAMI Aug. 2020* 2024-2037

Measurement

A Functional Representation for Graph Matching. Wang, F., +, *TPAMI Nov. 2020* 2737-2754

Learning Visual Instance Retrieval from Failure: Efficient Online Local Metric Adaptation from Negative Samples. Zhou, J., +, *TPAMI Nov. 2020* 2858-2873

Medical computing

Multi-Source Causal Feature Selection. Yu, K., +, *TPAMI Sept. 2020* 2240-2256

Medical disorders

Learning and Tracking the 3D Body Shape of Freely Moving Infants from RGB-D sequences. Hesse, N., +, *TPAMI Oct. 2020* 2540-2551

Medical image processing

DoubleFusion: Real-Time Capture of Human Performances with Inner Body Shapes from a Single Depth Sensor. Yu, T., +, *TPAMI Oct. 2020* 2523-2539

Hierarchical Fully Convolutional Network for Joint Atrophy Localization and Alzheimer's Disease Diagnosis Using Structural MRI. Lian, C., +, *TPAMI April 2020* 880-893

Learning and Tracking the 3D Body Shape of Freely Moving Infants from RGB-D sequences. Hesse, N., +, *TPAMI Oct. 2020* 2540-2551

Logistic Regression Confined by Cardinality-Constrained Sample and Feature Selection. Adeli, E., +, *TPAMI July 2020* 1713-1728

On Detection of Faint Edges in Noisy Images. Ofir, N., +, *TPAMI April 2020* 894-908

One-Bit Time-Resolved Imaging. Bhandari, A., +, *TPAMI July 2020* 1630-1641

UnstructuredFusion: Realtime 4D Geometry and Texture Reconstruction Using Commercial RGBD Cameras. Xu, L., +, *TPAMI Oct. 2020* 2508-2522

Weighted Manifold Alignment using Wave Kernel Signatures for Aligning Medical Image Datasets. Clough, J.R., +, *TPAMI April 2020* 988-997

Meetings

Guest Editors' Introduction to the Special Section on Computational Photography. Chakrabarti, A., +, *TPAMI July 2020* 1545-1546

Mesh generation

Extracting Geometric Structures in Images with Delaunay Point Processes. Favreau, J., +, *TPAMI April 2020* 837-850

Hierarchical Surface Prediction. Hane, C., +, *TPAMI June 2020* 1348-1361

SurfelMeshing: Online Surfel-Based Mesh Reconstruction. Schops, T., +, *TPAMI Oct. 2020* 2494-2507

Message passing

Local-Aggregation Graph Networks. Chang, J., +, *TPAMI Nov. 2020* 2874-2886

Micromirrors

Snapshot Compressive ToF+Spectral Imaging via Optimized Color-Coded Apertures. Rueda-Chacon, H., +, *TPAMI Oct. 2020* 2346-2360

Minimization

Ambiguity-Free Radiometric Calibration for Internet Photo Collections. Mo, Z., +, *TPAMI July 2020* 1670-1684

Generalized Latent Multi-View Subspace Clustering. Zhang, C., +, *TPAMI Jan. 2020* 86-99

Learning Representations for Neural Network-Based Classification Using the Information Bottleneck Principle. Amjad, R.A., +, *TPAMI Sept. 2020* 2225-2239

Structured Low-Rank Matrix Factorization: Global Optimality, Algorithms, and Applications. Haefele, B.D., +, *TPAMI June 2020* 1468-1482

Tensor Graphical Model: Non-Convex Optimization and Statistical Inference. Lyu, X., +, *TPAMI Aug. 2020* 2024-2037

Mixture models

Training Faster by Separating Modes of Variation in Batch-Normalized Models. Kalayeh, M.M., +, *TPAMI June 2020* 1483-1500

Mobile robots

The ApolloScape Open Dataset for Autonomous Driving and Its Application. Huang, X., +, *TPAMI Oct. 2020* 2702-2719

Unsupervised Deep Visual-Inertial Odometry with Online Error Correction for RGB-D Imagery. Shamwell, E.J., +, *TPAMI Oct. 2020* 2478-2493

Monte Carlo methods

Aggregated Wasserstein Distance and State Registration for Hidden Markov Models. Chen, Y., +, *TPAMI Sept. 2020* 2133-2147

Cooperative Training of Descriptor and Generator Networks. Xie, J., +, *TPAMI Jan. 2020* 27-45

Extracting Geometric Structures in Images with Delaunay Point Processes. Favreau, J., +, *TPAMI April 2020* 837-850

Motion compensation

A Disocclusion inpainting Framework for Depth-Based View Synthesis. Luo, G., +, *TPAMI June 2020* 1289-1302

Motion estimation

Deep Slow Motion Video Reconstruction With Hybrid Imaging System. Paliwal, A., +, *TPAMI July 2020* 1557-1569

Detailed Surface Geometry and Albedo Recovery from RGB-D Video under Natural Illumination. Zuo, X., +, *TPAMI Oct. 2020* 2720-2734

DoubleFusion: Real-Time Capture of Human Performances with Inner Body Shapes from a Single Depth Sensor. Yu, T., +, *TPAMI Oct. 2020* 2523-2539

Every Pixel Counts ++: Joint Learning of Geometry and Motion with 3D Holistic Understanding. Luo, C., +, *TPAMI Oct. 2020* 2624-2641

Force from Motion: Decoding Control Force of Activity in a First-Person Video. Park, H.S., +, *TPAMI March 2020* 622-635

Motion segmentation

Learning Low-Dimensional Temporal Representations with Latent Alignments. Su, B., +, *TPAMI Nov. 2020* 2842-2857

Multiplexing

Shape and Reflectance Reconstruction Using Concentric Multi-Spectral Light Field. Zhou, M., +, *TPAMI July 2020* 1594-1605

Mutual information

Multivariate Extension of Matrix-Based Rényi's α -Order Entropy Functional. Yu, S., +, *TPAMI Nov. 2020* 2960-2966

N

Natural language processing

Hierarchical LSTMs with Adaptive Attention for Visual Captioning. Gao, L., +, *TPAMI May 2020* 1112-1131

Image and Sentence Matching via Semantic Concepts and Order Learning. Huang, Y., +, *TPAMI March 2020* 636-650

Neural Machine Translation with Deep Attention. Zhang, B., +, *TPAMI Jan. 2020* 154-163

The Gap of Semantic Parsing: A Survey on Automatic Math Word Problem Solvers. Zhang, D., +, *TPAMI Sept. 2020* 2287-2305

Natural scenes

Clouds of Oriented Gradients for 3D Detection of Objects, Surfaces, and Indoor Scene Layouts. Ren, Z., +, *TPAMI Oct. 2020* 2670-2683

Real-Time RGB-D Camera Pose Estimation in Novel Scenes Using a Localisation Cascade. Cavallari, T., +, *TPAMI Oct. 2020* 2465-2477

Nearest neighbor methods

Asymmetric Mapping Quantization for Nearest Neighbor Search. Hong, W., +, *TPAMI July 2020* 1783-1790

Efficient and Robust Approximate Nearest Neighbor Search Using Hierarchical Navigable Small World Graphs. Malkov, Y.A., +, *TPAMI April 2020* 824-836

Learning to Index for Nearest Neighbor Search. Chiu, C., +, *TPAMI Aug. 2020* 1942-1956

Online Nearest Neighbor Search Using Hamming Weight Trees. Eghbali, S., +, *TPAMI July 2020* 1729-1740

Neural network architecture

Deep Neural Network Compression by In-Parallel Pruning-Quantization. Tung, F., +, *TPAMI March 2020* 568-579

Progressive Fusion for Unsupervised Binocular Depth Estimation Using Cycled Networks. Pilzer, A., +, *TPAMI Oct. 2020* 2380-2395

The Whole Is More Than Its Parts? From Explicit to Implicit Pose Normalization. *Simon, M.*, +, *TPAMI March 2020 749-763*
 Training Faster by Separating Modes of Variation in Batch-Normalized Models. *Kalayeh, M.M.*, +, *TPAMI June 2020 1483-1500*

Neural networks

Adversarial Learning of Structure-Aware Fully Convolutional Networks for Landmark Localization. *Chen, Y.*, +, *TPAMI July 2020 1654-1669*
 Approximate Fisher Information Matrix to Characterize the Training of Deep Neural Networks. *Liao, Z.*, +, *TPAMI Jan. 2020 15-26*
 Capturing the Geometry of Object Categories from Video Supervision. *Novotny, D.*, +, *TPAMI Feb. 2020 261-275*
 Deep Self-Evolution Clustering. *Chang, J.*, +, *TPAMI April 2020 809-823*
 Denoising Autoencoders for Overgeneralization in Neural Networks. *Spigler, G.*, *TPAMI April 2020 998-1004*
 Generalized Latent Multi-View Subspace Clustering. *Zhang, C.*, +, *TPAMI Jan. 2020 86-99*
 Guided Attention Inference Network. *Li, K.*, +, *TPAMI Dec. 2020 2996-3010*
 Hiding Images within Images. *Baluja, S.*, *TPAMI July 2020 1685-1697*
 Hierarchical Binary CNNs for Landmark Localization with Limited Resources. *Bulat, A.*, +, *TPAMI Feb. 2020 343-356*
 Incremental Learning Through Deep Adaptation. *Rosenfeld, A.*, +, *TPAMI March 2020 651-663*
 Joint Rain Detection and Removal from a Single Image with Contextualized Deep Networks. *Yang, W.*, +, *TPAMI June 2020 1377-1393*
 Joint Task-Recursive Learning for RGB-D Scene Understanding. *Zhang, Z.*, +, *TPAMI Oct. 2020 2608-2623*
 Learning Complexity-Aware Cascades for Pedestrian Detection. *Cai, Z.*, +, *TPAMI Sept. 2020 2195-2211*
 Learning Representations for Neural Network-Based Classification Using the Information Bottleneck Principle. *Amjad, R.A.*, +, *TPAMI Sept. 2020 2225-2239*
 Learning to Index for Nearest Neighbor Search. *Chiu, C.*, +, *TPAMI Aug. 2020 1942-1956*
 Local-Aggregation Graph Networks. *Chang, J.*, +, *TPAMI Nov. 2020 2874-2886*
 Neural Machine Translation with Deep Attention. *Zhang, B.*, +, *TPAMI Jan. 2020 154-163*
 Neural Sensors: Learning Pixel Exposures for HDR Imaging and Video Compressive Sensing With Programmable Sensors. *Martel, J.N.P.*, +, *TPAMI July 2020 1642-1653*
 On the Robustness of Semantic Segmentation Models to Adversarial Attacks. *Arnab, A.*, +, *TPAMI Dec. 2020 3040-3053*
 Photometric Depth Super-Resolution. *Haefner, B.*, +, *TPAMI Oct. 2020 2453-2464*
 Pictionary-Style Word Guessing on Hand-Drawn Object Sketches: Dataset, Analysis and Deep Network Models. *Sarvadevabhatla, R.K.*, +, *TPAMI Jan. 2020 221-231*
 Ranking-Preserving Cross-Source Learning for Image Retargeting Quality Assessment. *Liu, Y.*, +, *TPAMI July 2020 1798-1805*
 Real-World Image Denoising with Deep Boosting. *Chen, C.*, +, *TPAMI Dec. 2020 3071-3087*
 Semantic Fisher Scores for Task Transfer: Using Objects to Classify Scenes. *Dixit, M.*, +, *TPAMI Dec. 2020 3102-3118*
 Semantic Fisher Scores for Task Transfer: Using Objects to Classify Scenes. *Dixit, M.*, +, *TPAMI Dec. 2020 3102-3118*
 Semi-Supervised Adversarial Monocular Depth Estimation. *Ji, R.*, +, *TPAMI Oct. 2020 2410-2422*
 Synthesizing Supervision for Learning Deep Saliency Network without Human Annotation. *Zhang, D.*, +, *TPAMI July 2020 1755-1769*
 Unsupervised Deep Visual-Inertial Odometry with Online Error Correction for RGB-D Imagery. *Shamwell, E.J.*, +, *TPAMI Oct. 2020 2478-2493*
 Unsupervised Person Re-Identification by Deep Asymmetric Metric Embedding. *Yu, H.*, +, *TPAMI April 2020 956-973*
 Unsupervised Tracklet Person Re-Identification. *Li, M.*, +, *TPAMI July 2020 1770-1782*
 Zig-Zag Network for Semantic Segmentation of RGB-D Images. *Lin, D.*, +, *TPAMI Oct. 2020 2642-2655*

Neurons

Recomputation of the Dense Layers for Performance Improvement of DCNN. *Yang, Y.*, +, *TPAMI Nov. 2020 2912-2925*

Neurophysiology

Learning and Tracking the 3D Body Shape of Freely Moving Infants from RGB-D sequences. *Hesse, N.*, +, *TPAMI Oct. 2020 2540-2551*

Noise measurement

Matched Filters for Noisy Induced Subgraph Detection. *Sussman, D.L.*, +, *TPAMI Nov. 2020 2887-2900*

Noise reduction

Real-World Image Denoising with Deep Boosting. *Chen, C.*, +, *TPAMI Dec. 2020 3071-3087*

Normal distribution

Tensor Graphical Model: Non-Convex Optimization and Statistical Inference. *Lyu, X.*, +, *TPAMI Aug. 2020 2024-2037*

O

Object detection

A Disocclusion inpainting Framework for Depth-Based View Synthesis. *Luo, G.*, +, *TPAMI June 2020 1289-1302*
 Capturing the Geometry of Object Categories from Video Supervision. *Novotny, D.*, +, *TPAMI Feb. 2020 261-275*
 Clouds of Oriented Gradients for 3D Detection of Objects, Surfaces, and Indoor Scene Layouts. *Ren, Z.*, +, *TPAMI Oct. 2020 2670-2683*
 Detecting Coherent Groups in Crowd Scenes by Multiview Clustering. *Wang, Q.*, +, *TPAMI Jan. 2020 46-58*
 End-to-End Active Object Tracking and Its Real-World Deployment via Reinforcement Learning. *Luo, W.*, +, *TPAMI June 2020 1317-1332*
 Every Pixel Counts ++: Joint Learning of Geometry and Motion with 3D Holistic Understanding. *Luo, C.*, +, *TPAMI Oct. 2020 2624-2641*
 Focal Loss for Dense Object Detection. *Lin, T.*, +, *TPAMI Feb. 2020 318-327*
 Generic Primitive Detection in Point Clouds Using Novel Minimal Quadric Fits. *Birdal, T.*, +, *TPAMI June 2020 1333-1347*
 Inferring Salient Objects from Human Fixations. *Wang, W.*, +, *TPAMI Aug. 2020 1913-1927*
 Joint Rain Detection and Removal from a Single Image with Contextualized Deep Networks. *Yang, W.*, +, *TPAMI June 2020 1377-1393*
 Joint Task-Recursive Learning for RGB-D Scene Understanding. *Zhang, Z.*, +, *TPAMI Oct. 2020 2608-2623*
 Learning Complexity-Aware Cascades for Pedestrian Detection. *Cai, Z.*, +, *TPAMI Sept. 2020 2195-2211*
 Learning Depth with Convolutional Spatial Propagation Network. *Cheng, X.*, +, *TPAMI Oct. 2020 2361-2379*
 Learning with Privileged Information via Adversarial Discriminative Modality Distillation. *Garcia, N.C.*, +, *TPAMI Oct. 2020 2581-2593*
 Mask R-CNN. *He, K.*, +, *TPAMI Feb. 2020 386-397*
 Motion Segmentation & Multiple Object Tracking by Correlation Co-Clustering. *Keuper, M.*, +, *TPAMI Jan. 2020 140-153*
 Object Detection from Scratch with Deep Supervision. *Shen, Z.*, +, *TPAMI Feb. 2020 398-412*
 Object Detection in Videos by High Quality Object Linking. *Tang, P.*, +, *TPAMI May 2020 1272-1278*
 PCL: Proposal Cluster Learning for Weakly Supervised Object Detection. *Tang, P.*, +, *TPAMI Jan. 2020 176-191*
 Pictionary-Style Word Guessing on Hand-Drawn Object Sketches: Dataset, Analysis and Deep Network Models. *Sarvadevabhatla, R.K.*, +, *TPAMI Jan. 2020 221-231*
 Progressive Representation Adaptation for Weakly Supervised Object Localization. *Li, D.*, +, *TPAMI June 2020 1424-1438*
 SPFTN: A Joint Learning Framework for Localizing and Segmenting Objects in Weakly Labeled Videos. *Zhang, D.*, +, *TPAMI Feb. 2020 475-489*
 Synthesizing Supervision for Learning Deep Saliency Network without Human Annotation. *Zhang, D.*, +, *TPAMI July 2020 1755-1769*
 The ApolloScape Open Dataset for Autonomous Driving and Its Application. *Huang, X.*, +, *TPAMI Oct. 2020 2702-2719*

Object recognition

- Adversarial Action Prediction Networks. *Kong, Y.*, +, *TPAMI March 2020 539-553*
- Capturing the Geometry of Object Categories from Video Supervision. *Novotny, D.*, +, *TPAMI Feb. 2020 261-275*
- Clouds of Oriented Gradients for 3D Detection of Objects, Surfaces, and Indoor Scene Layouts. *Ren, Z.*, +, *TPAMI Oct. 2020 2670-2683*
- DART: Distribution Aware Retinal Transform for Event-Based Cameras. *Ramesh, B.*, +, *TPAMI Nov. 2020 2767-2780*
- Deep Neural Network Compression by In-Parallel Pruning-Quantization. *Tung, F.*, +, *TPAMI March 2020 568-579*
- Hierarchical Gaussian Descriptors with Application to Person Re-Identification. *Matsukawa, T.*, +, *TPAMI Sept. 2020 2179-2194*
- Learning with Privileged Information via Adversarial Discriminative Modality Distillation. *Garcia, N.C.*, +, *TPAMI Oct. 2020 2581-2593*
- Local-LDA: Open-Ended Learning of Latent Topics for 3D Object Recognition. *Kasaei, S.H.*, +, *TPAMI Oct. 2020 2567-2580*
- Mask R-CNN. *He, K.*, +, *TPAMI Feb. 2020 386-397*
- Object Detection in Videos by High Quality Object Linking. *Tang, P.*, +, *TPAMI May 2020 1272-1278*
- PCL: Proposal Cluster Learning for Weakly Supervised Object Detection. *Tang, P.*, +, *TPAMI Jan. 2020 176-191*
- Progressive Representation Adaptation for Weakly Supervised Object Localization. *Li, D.*, +, *TPAMI June 2020 1424-1438*
- Recognizing Material Properties from Images. *Schwartz, G.*, +, *TPAMI Aug. 2020 1981-1995*
- RefineNet: Multi-Path Refinement Networks for Dense Prediction. *Lin, G.*, +, *TPAMI May 2020 1228-1242*
- Semantic Fisher Scores for Task Transfer: Using Objects to Classify Scenes. *Dixit, M.*, +, *TPAMI Dec. 2020 3102-3118*
- The ApolloScape Open Dataset for Autonomous Driving and Its Application. *Huang, X.*, +, *TPAMI Oct. 2020 2702-2719*
- The Whole Is More Than Its Parts? From Explicit to Implicit Pose Normalization. *Simon, M.*, +, *TPAMI March 2020 749-763*

Object segmentation

- One Shot Segmentation: Unifying Rigid Detection and Non-Rigid Segmentation Using Elastic Regularization. *Nascimento, J.C.*, +, *TPAMI Dec. 2020 3054-3070*

Object tracking

- 3D Human Pose Machines with Self-Supervised Learning. *Wang, K.*, +, *TPAMI May 2020 1069-1082*
- DART: Distribution Aware Retinal Transform for Event-Based Cameras. *Ramesh, B.*, +, *TPAMI Nov. 2020 2767-2780*
- Deep Slow Motion Video Reconstruction With Hybrid Imaging System. *Paliwal, A.*, +, *TPAMI July 2020 1557-1569*
- DoubleFusion: Real-Time Capture of Human Performances with Inner Body Shapes from a Single Depth Sensor. *Yu, T.*, +, *TPAMI Oct. 2020 2523-2539*
- End-to-End Active Object Tracking and Its Real-World Deployment via Reinforcement Learning. *Luo, W.*, +, *TPAMI June 2020 1317-1332*
- LCR-Net++: Multi-Person 2D and 3D Pose Detection in Natural Images. *Rogez, G.*, +, *TPAMI May 2020 1146-1161*
- Motion Segmentation & Multiple Object Tracking by Correlation Co-Clustering. *Keuper, M.*, +, *TPAMI Jan. 2020 140-153*
- Online Meta Adaptation for Fast Video Object Segmentation. *Xiao, H.*, +, *TPAMI May 2020 1205-1217*
- Progressive Representation Adaptation for Weakly Supervised Object Localization. *Li, D.*, +, *TPAMI June 2020 1424-1438*
- Real-Time RGB-D Camera Pose Estimation in Novel Scenes Using a Relocalisation Cascade. *Cavallari, T.*, +, *TPAMI Oct. 2020 2465-2477*
- Tracking-by-Fusion via Gaussian Process Regression Extended to Transfer Learning. *Gao, J.*, +, *TPAMI April 2020 939-955*

Observers

- Context Based Emotion Recognition Using EMOTIC Dataset. *Kosti, R.*, +, *TPAMI Nov. 2020 2755-2766*
- Toward Bridging the Simulated-to-Real Gap: Benchmarking Super-Resolution on Real Data. *Kohler, T.*, +, *TPAMI Nov. 2020 2944-2959*

Optical radar

- Large-Scale Urban Reconstruction with Tensor Clustering and Global Boundary Refinement. *Poullis, C.*, *TPAMI May 2020 1132-1145*

Optical scanners

- Globally Optimal Inlier Set Maximization for Atlanta World Understanding. *Joo, K.*, +, *TPAMI Oct. 2020 2656-2669*

Optical transfer function

- PhlatCam: Designed Phase-Mask Based Thin Lensless Camera. *Boominathan, V.*, +, *TPAMI July 2020 1618-1629*

Optimization

- A Comprehensive Analysis of Deep Regression. *Lathuiliere, S.*, +, *TPAMI Sept. 2020 2065-2081*
- A Functional Representation for Graph Matching. *Wang, F.*, +, *TPAMI Nov. 2020 2737-2754*
- ADMM-CSNet: A Deep Learning Approach for Image Compressive Sensing. *Yang, Y.*, +, *TPAMI March 2020 521-538*
- Discrete-Continuous Transformation Matching for Dense Semantic Correspondence. *Kim, S.*, +, *TPAMI Jan. 2020 59-73*
- Distributed Very Large Scale Bundle Adjustment by Global Camera Consensus. *Zhang, R.*, +, *TPAMI Feb. 2020 291-303*
- Efficient Graph Cut Optimization for Full CRFs with Quantized Edges. *Vekler, O.*, *TPAMI April 2020 1005-1012*
- Face Hallucination by Attentive Sequence Optimization with Reinforcement Learning. *Shi, Y.*, +, *TPAMI Nov. 2020 2809-2824*
- Globally Optimal Inlier Set Maximization for Atlanta World Understanding. *Joo, K.*, +, *TPAMI Oct. 2020 2656-2669*
- Globally-Optimal Inlier Set Maximisation for Camera Pose and Correspondence Estimation. *Campbell, D.*, +, *TPAMI Feb. 2020 328-342*
- Learned Dynamic Guidance for Depth Image Reconstruction. *Gu, S.*, +, *TPAMI Oct. 2020 2437-2452*
- MOSES: A Streaming Algorithm for Linear Dimensionality Reduction. *Eftekhari, A.*, +, *TPAMI Nov. 2020 2901-2911*
- Multiple Kernelk-Means with Incomplete Kernels. *Liu, X.*, +, *TPAMI May 2020 1191-1204*
- Numerical Quadrature for Probabilistic Policy Search. *Vinogradskaya, J.*, +, *TPAMI Jan. 2020 164-175*
- Recomputation of the Dense Layers for Performance Improvement of DCNN. *Yang, Y.*, +, *TPAMI Nov. 2020 2912-2925*
- Snapshot Compressive ToF+Spectral Imaging via Optimized Color-Coded Apertures. *Rueda-Chacon, H.*, +, *TPAMI Oct. 2020 2346-2360*
- Tensor Graphical Model: Non-Convex Optimization and Statistical Inference. *Lyu, X.*, +, *TPAMI Aug. 2020 2024-2037*

P**Parameter estimation**

- Approximate Sparse Multinomial Logistic Regression for Classification. *Kayabol, K.*, *TPAMI Feb. 2020 490-493*
- Rolling Shutter Camera Absolute Pose. *Albl, C.*, +, *TPAMI June 2020 1439-1452*

Particle filtering (numerical methods)

- Tracking-by-Fusion via Gaussian Process Regression Extended to Transfer Learning. *Gao, J.*, +, *TPAMI April 2020 939-955*

Pattern analysis

- CoRRN: Cooperative Reflection Removal Network. *Wan, R.*, +, *TPAMI Dec. 2020 2969-2982*

Pattern classification

- Absent Multiple Kernel Learning Algorithms. *Liu, X.*, +, *TPAMI June 2020 1303-1316*
- Automated Video Face Labelling for Films and TV Material. *Parkhi, O.M.*, +, *TPAMI April 2020 780-792*
- Clouds of Oriented Gradients for 3D Detection of Objects, Surfaces, and Indoor Scene Layouts. *Ren, Z.*, +, *TPAMI Oct. 2020 2670-2683*
- Deep Self-Evolution Clustering. *Chang, J.*, +, *TPAMI April 2020 809-823*
- Denoising Autoencoders for Overgeneralization in Neural Networks. *Spigler, G.*, *TPAMI April 2020 998-1004*
- Learning Local Metrics and Influential Regions for Classification. *Dong, M.*, +, *TPAMI June 2020 1522-1529*

Learning Multiple Local Metrics: Global Consideration Helps. *Ye, H., +, TPAMI July 2020 1698-1712*

Learning Representations for Neural Network-Based Classification Using the Information Bottleneck Principle. *Amjad, R.A., +, TPAMI Sept. 2020 2225-2239*

Moments in Time Dataset: One Million Videos for Event Understanding. *Monfort, M., +, TPAMI Feb. 2020 502-508*

Multi-Source Causal Feature Selection. *Yu, K., +, TPAMI Sept. 2020 2240-2256*

The Lovász Hinge: A Novel Convex Surrogate for Submodular Losses. *Yu, J., +, TPAMI March 2020 735-748*

Pattern clustering

Absolute Cluster Validity. *Iglesias, F., +, TPAMI Sept. 2020 2096-2112*

Back to the Future: Radial Basis Function Network Revisited. *Que, Q., +, TPAMI Aug. 2020 1856-1867*

Border-Peeling Clustering. *Averbuch-Elor, H., +, TPAMI July 2020 1791-1797*

Deep Self-Evolution Clustering. *Chang, J., +, TPAMI April 2020 809-823*

Detecting Coherent Groups in Crowd Scenes by Multiview Clustering. *Wang, Q., +, TPAMI Jan. 2020 46-58*

Efficient and Robust Approximate Nearest Neighbor Search Using Hierarchical Navigable Small World Graphs. *Malkov, Y.A., +, TPAMI April 2020 824-836*

Flexible High-Dimensional Unsupervised Learning with Missing Data. *Wei, Y., +, TPAMI March 2020 610-621*

Generalized Latent Multi-View Subspace Clustering. *Zhang, C., +, TPAMI Jan. 2020 86-99*

Large-Scale Urban Reconstruction with Tensor Clustering and Global Boundary Refinement. *Poullis, C., TPAMI May 2020 1132-1145*

Learning to Index for Nearest Neighbor Search. *Chiu, C., +, TPAMI Aug. 2020 1942-1956*

Motion Segmentation & Multiple Object Tracking by Correlation Co-Clustering. *Keuper, M., +, TPAMI Jan. 2020 140-153*

Multiple Kernelk-Means with Incomplete Kernels. *Liu, X., +, TPAMI May 2020 1191-1204*

On Perfect Clustering of High Dimension, Low Sample Size Data. *Sarkar, S., +, TPAMI Sept. 2020 2257-2272*

PCL: Proposal Cluster Learning for Weakly Supervised Object Detection. *Tang, P., +, TPAMI Jan. 2020 176-191*

Properties of Mean Shift. *Yamasaki, R., +, TPAMI Sept. 2020 2273-2286*

Subspace Clustering via Good Neighbors. *Yang, J., +, TPAMI June 2020 1537-1544*

Unsupervised Person Re-Identification by Deep Asymmetric Metric Embedding. *Yu, H., +, TPAMI April 2020 956-973*

Pattern matching

A Functional Representation for Graph Matching. *Wang, F., +, TPAMI Nov. 2020 2737-2754*

Pattern recognition

Guest Editorial: Image and Video Inpainting and Denoising. *Escalera, S., +, TPAMI May 2020 1021-1024*

Local-Aggregation Graph Networks. *Chang, J., +, TPAMI Nov. 2020 2874-2886*

Pedestrians

Learning Complexity-Aware Cascades for Pedestrian Detection. *Cai, Z., +, TPAMI Sept. 2020 2195-2211*

Pediatrics

Learning and Tracking the 3D Body Shape of Freely Moving Infants from RGB-D sequences. *Hesse, N., +, TPAMI Oct. 2020 2540-2551*

Perturbation methods

On the Robustness of Semantic Segmentation Models to Adversarial Attacks. *Arnab, A., +, TPAMI Dec. 2020 3040-3053*

Photography

Guest Editors' Introduction to the Special Section on Computational Photography. *Chakrabarti, A., +, TPAMI July 2020 1545-1546*

Photometry

Ambiguity-Free Radiometric Calibration for Internet Photo Collections. *Mo, Z., +, TPAMI July 2020 1670-1684*

Semi-Calibrated Photometric Stereo. *Cho, D., +, TPAMI Jan. 2020 232-245*

Physical optics

PhlatCam: Designed Phase-Mask Based Thin Lensless Camera. *Boominathan, V., +, TPAMI July 2020 1618-1629*

Polynomial approximation

Rolling Shutter Camera Absolute Pose. *Albl, C., +, TPAMI June 2020 1439-1452*

Pose estimation

3D Human Pose Machines with Self-Supervised Learning. *Wang, K., +, TPAMI May 2020 1069-1082*

Adversarial Cross-Spectral Face Completion for NIR-VIS Face Recognition. *He, R., +, TPAMI May 2020 1025-1037*

Adversarial Learning of Structure-Aware Fully Convolutional Networks for Landmark Localization. *Chen, Y., +, TPAMI July 2020 1654-1669*

Can We See More? Joint Frontalization and Hallucination of Unaligned Tiny Faces. *Yu, X., +, TPAMI Sept. 2020 2148-2164*

DoubleFusion: Real-Time Capture of Human Performances with Inner Body Shapes from a Single Depth Sensor. *Yu, T., +, TPAMI Oct. 2020 2523-2539*

Face-from-Depth for Head Pose Estimation on Depth Images. *Borghi, G., +, TPAMI March 2020 596-609*

Feature Boosting Network For 3D Pose Estimation. *Liu, J., +, TPAMI Feb. 2020 494-501*

Generalized Feedback Loop for Joint Hand-Object Pose Estimation. *Oberweger, M., +, TPAMI Aug. 2020 1898-1912*

Globally-Optimal Inlier Set Maximisation for Camera Pose and Correspondence Estimation. *Campbell, D., +, TPAMI Feb. 2020 328-342*

Hierarchical Binary CNNs for Landmark Localization with Limited Resources. *Bulat, A., +, TPAMI Feb. 2020 343-356*

High-Fidelity Monocular Face Reconstruction Based on an Unsupervised Model-Based Face Autoencoder. *Tewari, A., +, TPAMI Feb. 2020 357-370*

Joint Face Alignment and 3D Face Reconstruction with Application to Face Recognition. *Liu, F., +, TPAMI March 2020 664-678*

LCR-Net++: Multi-Person 2D and 3D Pose Detection in Natural Images. *Rogez, G., +, TPAMI May 2020 1146-1161*

Learning and Tracking the 3D Body Shape of Freely Moving Infants from RGB-D sequences. *Hesse, N., +, TPAMI Oct. 2020 2540-2551*

Mask R-CNN. *He, K., +, TPAMI Feb. 2020 386-397*

Minimal Case Relative Pose Computation Using Ray-Point-Ray Features. *Zhao, J., +, TPAMI May 2020 1176-1190*

Real-Time RGB-D Camera Pose Estimation in Novel Scenes Using a Relocalisation Cascade. *Cavallari, T., +, TPAMI Oct. 2020 2465-2477*

Rolling Shutter Camera Absolute Pose. *Albl, C., +, TPAMI June 2020 1439-1452*

The ApolloScape Open Dataset for Autonomous Driving and Its Application. *Huang, X., +, TPAMI Oct. 2020 2702-2719*

The Whole Is More Than Its Parts? From Explicit to Implicit Pose Normalization. *Simon, M., +, TPAMI March 2020 749-763*

Towards Efficient U-Nets: A Coupled and Quantized Approach. *Tang, Z., +, TPAMI Aug. 2020 2038-2050*

UnstructuredFusion: Realtime 4D Geometry and Texture Reconstruction Using Commercial RGBD Cameras. *Xu, L., +, TPAMI Oct. 2020 2508-2522*

Unsupervised Deep Visual-Inertial Odometry with Online Error Correction for RGB-D Imagery. *Shamwell, E.J., +, TPAMI Oct. 2020 2478-2493*

Prediction theory

Hierarchical Binary CNNs for Landmark Localization with Limited Resources. *Bulat, A., +, TPAMI Feb. 2020 343-356*

Predictive modeling

Gravitational Laws of Focus of Attention. *Zanca, D., +, TPAMI Dec. 2020 2983-2995*

Principal component analysis

A Simple and Fast Algorithm for L1-Norm Kernel PCA. *Kim, C., +, TPAMI Aug. 2020 1842-1855*

MOSES: A Streaming Algorithm for Linear Dimensionality Reduction. *Eftekhari, A., +, TPAMI Nov. 2020 2901-2911*

Tensor Robust Principal Component Analysis with a New Tensor Nuclear Norm. *Lu, C., +, TPAMI April 2020 925-938*

Probability

- A Hybrid RNN-HMM Approach for Weakly Supervised Temporal Action Segmentation. *Kuehne, H.*, +, *TPAMI April 2020 765-779*
- Defocus Blur Detection via Multi-Stream Bottom-Top-Bottom Network. *Zhao, W.*, +, *TPAMI Aug. 2020 1884-1897*
- Efficient and Robust Approximate Nearest Neighbor Search Using Hierarchical Navigable Small World Graphs. *Malkov, Y.A.*, +, *TPAMI April 2020 824-836*
- Learning Compact Features for Human Activity Recognition Via Probabilistic First-Take-All. *Ye, J.*, +, *TPAMI Jan. 2020 126-139*
- Learning to Index for Nearest Neighbor Search. *Chiu, C.*, +, *TPAMI Aug. 2020 1942-1956*
- Numerical Quadrature for Probabilistic Policy Search. *Vinogradskaya, J.*, +, *TPAMI Jan. 2020 164-175*
- Properties of Mean Shift. *Yamasaki, R.*, +, *TPAMI Sept. 2020 2273-2286*
- Semantic Fisher Scores for Task Transfer: Using Objects to Classify Scenes. *Dixit, M.*, +, *TPAMI Dec. 2020 3102-3118*
- Tracking-by-Fusion via Gaussian Process Regression Extended to Transfer Learning. *Gao, J.*, +, *TPAMI April 2020 939-955*

Probability density function

- Multivariate Extension of Matrix-Based Rényi's α -Order Entropy Functional. *Yu, S.*, +, *TPAMI Nov. 2020 2960-2966*

Probes

- Learning Visual Instance Retrieval from Failure: Efficient Online Local Metric Adaptation from Negative Samples. *Zhou, J.*, +, *TPAMI Nov. 2020 2858-2873*

Protocols

- H-Patches: A Benchmark and Evaluation of Handcrafted and Learned Local Descriptors. *Balntas, V.*, +, *TPAMI Nov. 2020 2825-2841*
- Deep Imbalanced Learning for Face Recognition and Attribute Prediction. *Huang, C.*, +, *TPAMI Nov. 2020 2781-2794*
- Models Matter, So Does Training: An Empirical Study of CNNs for Optical Flow Estimation. *Sun, D.*, +, *TPAMI June 2020 1408-1423*

Prototypes

- Vocabulary-Informed Zero-Shot and Open-Set Learning. *Fu, Y.*, +, *TPAMI Dec. 2020 3136-3152*

Q**Quality of experience**

- Group Maximum Differentiation Competition: Model Comparison with Few Samples. *Ma, K.*, +, *TPAMI April 2020 851-864*

Quantization (signal)

- Asymmetric Mapping Quantization for Nearest Neighbor Search. *Hong, W.*, +, *TPAMI July 2020 1783-1790*

Query processing

- Context-Aware Query Selection for Active Learning in Event Recognition. *Hasan, M.*, +, *TPAMI March 2020 554-567*
- Learning to Index for Nearest Neighbor Search. *Chiu, C.*, +, *TPAMI Aug. 2020 1942-1956*
- Online Nearest Neighbor Search Using Hamming Weight Trees. *Eghbali, S.*, +, *TPAMI July 2020 1729-1740*

Question answering (information retrieval)

- Deep Neural Network Compression by In-Parallel Pruning-Quantization. *Tung, F.*, +, *TPAMI March 2020 568-579*
- Inverse Visual Question Answering: A New Benchmark and VQA Diagnosis Tool. *Liu, F.*, +, *TPAMI Feb. 2020 460-474*

R**Radial basis function networks**

- Back to the Future: Radial Basis Function Network Revisited. *Que, Q.*, +, *TPAMI Aug. 2020 1856-1867*
- Learned Dynamic Guidance for Depth Image Reconstruction. *Gu, S.*, +, *TPAMI Oct. 2020 2437-2452*

Radiometry

- Ambiguity-Free Radiometric Calibration for Internet Photo Collections. *Mo, Z.*, +, *TPAMI July 2020 1670-1684*

Rain

- Joint Rain Detection and Removal from a Single Image with Contextualized Deep Networks. *Yang, W.*, +, *TPAMI June 2020 1377-1393*

Random processes

- Efficient and Robust Approximate Nearest Neighbor Search Using Hierarchical Navigable Small World Graphs. *Malkov, Y.A.*, +, *TPAMI April 2020 824-836*
- Efficient Graph Cut Optimization for Full CRFs with Quantized Edges. *Veksler, O.*, *TPAMI April 2020 1005-1012*
- Semi-Supervised Adversarial Monocular Depth Estimation. *Ji, R.*, +, *TPAMI Oct. 2020 2410-2422*

Ray tracing

- Minimal Case Relative Pose Computation Using Ray-Point-Ray Features. *Zhao, J.*, +, *TPAMI May 2020 1176-1190*

Real-time systems

- Hierarchical Binary CNNs for Landmark Localization with Limited Resources. *Bulat, A.*, +, *TPAMI Feb. 2020 343-356*

Recommender systems

- Heterogeneous Recommendation via Deep Low-Rank Sparse Collective Factorization. *Jiang, S.*, +, *TPAMI May 2020 1097-1111*

Recurrent neural networks

- A Hybrid RNN-HMM Approach for Weakly Supervised Temporal Action Segmentation. *Kuehne, H.*, +, *TPAMI April 2020 765-779*
- A Temporally-Aware Interpolation Network for Video Frame Inpainting. *Szeto, R.*, +, *TPAMI May 2020 1053-1068*
- Direction-Aware Spatial Context Features for Shadow Detection and Removal. *Hu, X.*, +, *TPAMI Nov. 2020 2795-2808*
- End-to-End Active Object Tracking and Its Real-World Deployment via Reinforcement Learning. *Luo, W.*, +, *TPAMI June 2020 1317-1332*
- Hierarchical LSTMs with Adaptive Attention for Visual Captioning. *Gao, L.*, +, *TPAMI May 2020 1112-1131*
- Image and Sentence Matching via Semantic Concepts and Order Learning. *Huang, Y.*, +, *TPAMI March 2020 636-650*
- Inferring Salient Objects from Human Fixations. *Wang, W.*, +, *TPAMI Aug. 2020 1913-1927*
- On Multi-Layer Basis Pursuit, Efficient Algorithms and Convolutional Neural Networks. *Sulam, J.*, +, *TPAMI Aug. 2020 1968-1980*

Regression analysis

- 3D Human Pose Machines with Self-Supervised Learning. *Wang, K.*, +, *TPAMI May 2020 1069-1082*
- A Comprehensive Analysis of Deep Regression. *Lathuiliere, S.*, +, *TPAMI Sept. 2020 2065-2081*
- Approximate Sparse Multinomial Logistic Regression for Classification. *Kayabol, K.*, *TPAMI Feb. 2020 490-493*
- Confidence Propagation through CNNs for Guided Sparse Depth Regression. *Eldesokey, A.*, +, *TPAMI Oct. 2020 2423-2436*
- Joint Face Alignment and 3D Face Reconstruction with Application to Face Recognition. *Liu, F.*, +, *TPAMI March 2020 664-678*
- LCR-Net++: Multi-Person 2D and 3D Pose Detection in Natural Images. *Rogez, G.*, +, *TPAMI May 2020 1146-1161*
- Logistic Regression Confined by Cardinality-Constrained Sample and Feature Selection. *Adeli, E.*, +, *TPAMI July 2020 1713-1728*
- Perspective-Adaptive Convolutions for Scene Parsing. *Zhang, R.*, +, *TPAMI April 2020 909-924*
- Progressive Fusion for Unsupervised Binocular Depth Estimation Using Cycled Networks. *Pilzer, A.*, +, *TPAMI Oct. 2020 2380-2395*
- Ranking-Preserving Cross-Source Learning for Image Retargeting Quality Assessment. *Liu, Y.*, +, *TPAMI July 2020 1798-1805*
- Real-Time RGB-D Camera Pose Estimation in Novel Scenes Using a Localisation Cascade. *Cavallari, T.*, +, *TPAMI Oct. 2020 2465-2477*
- RefineNet: Multi-Path Refinement Networks for Dense Prediction. *Lin, G.*, +, *TPAMI May 2020 1228-1242*
- Tracking-by-Fusion via Gaussian Process Regression Extended to Transfer Learning. *Gao, J.*, +, *TPAMI April 2020 939-955*

Reinforcement learning

- Face Hallucination by Attentive Sequence Optimization with Reinforcement Learning. *Shi, Y.*, +, *TPAMI Nov. 2020 2809-2824*

Rendering (computer graphics)

- A Disocclusion Inpainting Framework for Depth-Based View Synthesis. Luo, G., +, *TPAMI June 2020 1289-1302*
- Hierarchical Bayesian Inverse Lighting of Portraits with a Virtual Light Stage. Shahlaei, D., +, *TPAMI April 2020 865-879*
- Neural Opacity Point Cloud. Wang, C., +, *TPAMI July 2020 1570-1581*

Retina

- DART: Distribution Aware Retinal Transform for Event-Based Cameras. Ramesh, B., +, *TPAMI Nov. 2020 2767-2780*

Robot vision

- Local-LDA: Open-Ended Learning of Latent Topics for 3D Object Recognition. Kasaei, S.H., +, *TPAMI Oct. 2020 2567-2580*
- The ApolloScape Open Dataset for Autonomous Driving and Its Application. Huang, X., +, *TPAMI Oct. 2020 2702-2719*
- Unsupervised Deep Visual-Inertial Odometry with Online Error Correction for RGB-D Imagery. Shamwell, E.J., +, *TPAMI Oct. 2020 2478-2493*

Robustness

- On the Robustness of Semantic Segmentation Models to Adversarial Attacks. Arnab, A., +, *TPAMI Dec. 2020 3040-3053*

S**Search problems**

- Efficient and Robust Approximate Nearest Neighbor Search Using Hierarchical Navigable Small World Graphs. Malkov, Y.A., +, *TPAMI April 2020 824-836*
- Learning to Index for Nearest Neighbor Search. Chiu, C., +, *TPAMI Aug. 2020 1942-1956*
- Multi-Source Causal Feature Selection. Yu, K., +, *TPAMI Sept. 2020 2240-2256*
- Online Nearest Neighbor Search Using Hamming Weight Trees. Eghbali, S., +, *TPAMI July 2020 1729-1740*

Semantics

- Deep Imbalanced Learning for Face Recognition and Attribute Prediction. Huang, C., +, *TPAMI Nov. 2020 2781-2794*
- Direction-Aware Spatial Context Features for Shadow Detection and Removal. Hu, X., +, *TPAMI Nov. 2020 2795-2808*
- Guided Attention Inference Network. Li, K., +, *TPAMI Dec. 2020 2996-3010*
- On the Robustness of Semantic Segmentation Models to Adversarial Attacks. Arnab, A., +, *TPAMI Dec. 2020 3040-3053*
- Reconstruct and Represent Video Contents for Captioning via Reinforcement Learning. Zhang, W., +, *TPAMI Dec. 2020 3088-3101*
- Semantic Face Hallucination: Super-Resolving Very Low-Resolution Face Images with Supplementary Attributes. Yu, X., +, *TPAMI Nov. 2020 2926-2943*
- Semantic Fisher Scores for Task Transfer: Using Objects to Classify Scenes. Dixit, M., +, *TPAMI Dec. 2020 3102-3118*
- Trace Quotient with Sparsity Priors for Learning Low Dimensional Image Representations. Wei, X., +, *TPAMI Dec. 2020 3119-3135*
- Vocabulary-Informed Zero-Shot and Open-Set Learning. Fu, Y., +, *TPAMI Dec. 2020 3136-3152*

Semisupervised learning

- Trace Quotient with Sparsity Priors for Learning Low Dimensional Image Representations. Wei, X., +, *TPAMI Dec. 2020 3119-3135*

Sensor fusion

- The ApolloScape Open Dataset for Autonomous Driving and Its Application. Huang, X., +, *TPAMI Oct. 2020 2702-2719*

Service robots

- Local-LDA: Open-Ended Learning of Latent Topics for 3D Object Recognition. Kasaei, S.H., +, *TPAMI Oct. 2020 2567-2580*

Set theory

- The Lovász Hinge: A Novel Convex Surrogate for Submodular Losses. Yu, J., +, *TPAMI March 2020 735-748*

Shape

- DART: Distribution Aware Retinal Transform for Event-Based Cameras. Ramesh, B., +, *TPAMI Nov. 2020 2767-2780*

Shape measurement

- Measuring Shapes with Desired Convex Polygons. Zunic, J., +, *TPAMI June 2020 1394-1407*

Shape recognition

- Hyperbolic Wasserstein Distance for Shape Indexing. Shi, J., +, *TPAMI June 2020 1362-1376*
- Weakly Supervised Learning with Multi-Stream CNN-LSTM-HMMs to Discover Sequential Parallelism in Sign Language Videos. Koller, O., +, *TPAMI Sept. 2020 2306-2320*

Signal classification

- Learning Compact Features for Human Activity Recognition Via Probabilistic First-Take-All. Ye, J., +, *TPAMI Jan. 2020 126-139*

Skin

- Learning and Tracking the 3D Body Shape of Freely Moving Infants from RGB-D sequences. Hesse, N., +, *TPAMI Oct. 2020 2540-2551*

SLAM (robots)

- Real-Time RGB-D Camera Pose Estimation in Novel Scenes Using a Localisation Cascade. Cavallari, T., +, *TPAMI Oct. 2020 2465-2477*
- SurfelMeshing: Online Surfel-Based Mesh Reconstruction. Schops, T., +, *TPAMI Oct. 2020 2494-2507*
- Unsupervised Deep Visual-Inertial Odometry with Online Error Correction for RGB-D Imagery. Shamwell, E.J., +, *TPAMI Oct. 2020 2478-2493*

Smoothing methods

- A Continuation Method for Graph Matching Based Feature Correspondence. Yang, X., +, *TPAMI Aug. 2020 1809-1822*

Social networking (online)

- Matched Filters for Noisy Induced Subgraph Detection. Sussman, D.L., +, *TPAMI Nov. 2020 2887-2900*
- Person Recognition in Personal Photo Collections. Oh, S.J., +, *TPAMI Jan. 2020 203-220*
- Shared Multi-View Data Representation for Multi-Domain Event Detection. Yang, Z., +, *TPAMI May 2020 1243-1256*

Solid modeling

- DoubleFusion: Real-Time Capture of Human Performances with Inner Body Shapes from a Single Depth Sensor. Yu, T., +, *TPAMI Oct. 2020 2523-2539*
- Every Pixel Counts ++: Joint Learning of Geometry and Motion with 3D Holistic Understanding. Luo, C., +, *TPAMI Oct. 2020 2624-2641*
- Hierarchical Bayesian Inverse Lighting of Portraits with a Virtual Light Stage. Shahlaei, D., +, *TPAMI April 2020 865-879*
- Hierarchical Surface Prediction. Hane, C., +, *TPAMI June 2020 1348-1361*
- Large-Scale Urban Reconstruction with Tensor Clustering and Global Boundary Refinement. Poullis, C., *TPAMI May 2020 1132-1145*
- Learning and Tracking the 3D Body Shape of Freely Moving Infants from RGB-D sequences. Hesse, N., +, *TPAMI Oct. 2020 2540-2551*
- Local Deformable 3D Reconstruction with Cartan's Connections. Parashar, S., +, *TPAMI Dec. 2020 3011-3026*
- Neural Opacity Point Cloud. Wang, C., +, *TPAMI July 2020 1570-1581*
- One Shot Segmentation: Unifying Rigid Detection and Non-Rigid Segmentation Using Elastic Regularization. Nascimento, J.C., +, *TPAMI Dec. 2020 3054-3070*
- SurfelMeshing: Online Surfel-Based Mesh Reconstruction. Schops, T., +, *TPAMI Oct. 2020 2494-2507*

Sparse matrices

- Photometric Stereo in Participating Media Using an Analytical Solution for Shape-Dependent Forward Scatter. Fujimura, Y., +, *TPAMI March 2020 708-719*
- Trace Quotient with Sparsity Priors for Learning Low Dimensional Image Representations. Wei, X., +, *TPAMI Dec. 2020 3119-3135*

Spatial light modulators

- Neural Sensors: Learning Pixel Exposures for HDR Imaging and Video Compressive Sensing With Programmable Sensors. Martel, J.N.P., +, *TPAMI July 2020 1642-1653*

Spatial resolution

- Semantic Face Hallucination: Super-Resolving Very Low-Resolution Face Images with Supplementary Attributes. Yu, X., +, *TPAMI Nov. 2020 2926-2943*
- Toward Bridging the Simulated-to-Real Gap: Benchmarking Super-Resolution on Real Data. Kohler, T., +, *TPAMI Nov. 2020 2944-2959*

Special issues and sections

- Guest Editorial: Image and Video Inpainting and Denoising. Escalera, S., +, *TPAMI May 2020 1021-1024*

Guest Editors' Introduction to the Special Issue on RGB-D Vision: Methods and Applications. *Bennamoun, M.*, +, *TPAMI Oct. 2020 2329-2332*

Guest Editors' Introduction to the Special Section on Computational Photography. *Chakrabarti, A.*, +, *TPAMI July 2020 1545-1546*

Sport

Force from Motion: Decoding Control Force of Activity in a First-Person Video. *Park, H.S.*, +, *TPAMI March 2020 622-635*

Statistical analysis

A Comprehensive Analysis of Deep Regression. *Lathuiliere, S.*, +, *TPAMI Sept. 2020 2065-2081*

Learning and Tracking the 3D Body Shape of Freely Moving Infants from RGB-D sequences. *Hesse, N.*, +, *TPAMI Oct. 2020 2540-2551*

On the Convergence of Learning-Based Iterative Methods for Nonconvex Inverse Problems. *Liu, R.*, +, *TPAMI Dec. 2020 3027-3039*

Persistence Paths and Signature Features in Topological Data Analysis. *Chevyrev, I.*, +, *TPAMI Jan. 2020 192-202*

Properties of Mean Shift. *Yamasaki, R.*, +, *TPAMI Sept. 2020 2273-2286*

Tensor Graphical Model: Non-Convex Optimization and Statistical Inference. *Lyu, X.*, +, *TPAMI Aug. 2020 2024-2037*

Statistical distributions

Hyperbolic Wasserstein Distance for Shape Indexing. *Shi, J.*, +, *TPAMI June 2020 1362-1376*

Tensor Graphical Model: Non-Convex Optimization and Statistical Inference. *Lyu, X.*, +, *TPAMI Aug. 2020 2024-2037*

Stereo image processing

Contactless Biometric Identification Using 3D Finger Knuckle Patterns. *Cheng, K.H.M.*, +, *TPAMI Aug. 2020 1868-1883*

Detailed Surface Geometry and Albedo Recovery from RGB-D Video under Natural Illumination. *Zuo, X.*, +, *TPAMI Oct. 2020 2720-2734*

Differential 3D Facial Recognition: Adding 3D to Your State-of-the-Art 2D Method. *Martino, J.M.D.*, +, *TPAMI July 2020 1582-1593*

Every Pixel Counts ++: Joint Learning of Geometry and Motion with 3D Holistic Understanding. *Luo, C.*, +, *TPAMI Oct. 2020 2624-2641*

Hyperbolic Wasserstein Distance for Shape Indexing. *Shi, J.*, +, *TPAMI June 2020 1362-1376*

Intel® RealSense™ SR300 Coded Light Depth Camera. *Zabatani, A.*, +, *TPAMI Oct. 2020 2333-2345*

Learning Depth with Convolutional Spatial Propagation Network. *Cheng, X.*, +, *TPAMI Oct. 2020 2361-2379*

Minimal Case Relative Pose Computation Using Ray-Point-Ray Features. *Zhao, J.*, +, *TPAMI May 2020 1176-1190*

PhlatCam: Designed Phase-Mask Based Thin Lensless Camera. *Boominathan, V.*, +, *TPAMI July 2020 1618-1629*

Photometric Depth Super-Resolution. *Haefner, B.*, +, *TPAMI Oct. 2020 2453-2464*

Photometric Stereo in Participating Media Using an Analytical Solution for Shape-Dependent Forward Scatter. *Fujimura, Y.*, +, *TPAMI March 2020 708-719*

Progressive Fusion for Unsupervised Binocular Depth Estimation Using Cycled Networks. *Pilzer, A.*, +, *TPAMI Oct. 2020 2380-2395*

Revisiting Projective Structure from Motion: A Robust and Efficient Incremental Solution. *Magerand, L.*, +, *TPAMI Feb. 2020 430-443*

Rolling Shutter Camera Absolute Pose. *Albl, C.*, +, *TPAMI June 2020 1439-1452*

Semi-Calibrated Photometric Stereo. *Cho, D.*, +, *TPAMI Jan. 2020 232-245*

Skeleton-Based Online Action Prediction Using Scale Selection Network. *Liu, J.*, +, *TPAMI June 2020 1453-1467*

Unsupervised Domain Adaptation for Depth Prediction from Images. *Toni, A.*, +, *TPAMI Oct. 2020 2396-2409*

Stochastic processes

High-Fidelity Monocular Face Reconstruction Based on an Unsupervised Model-Based Face Autoencoder. *Tewari, A.*, +, *TPAMI Feb. 2020 357-370*

Matched Filters for Noisy Induced Subgraph Detection. *Sussman, D.L.*, +, *TPAMI Nov. 2020 2887-2900*

Strain analysis

A Functional Representation for Graph Matching. *Wang, F.*, +, *TPAMI Nov. 2020 2737-2754*

Supervised learning

A Hybrid RNN-HMM Approach for Weakly Supervised Temporal Action Segmentation. *Kuehne, H.*, +, *TPAMI April 2020 765-779*

Guided Attention Inference Network. *Li, K.*, +, *TPAMI Dec. 2020 2996-3010*

Open Set Domain Adaptation for Image and Action Recognition. *Panareda Busto, P.*, +, *TPAMI Feb. 2020 413-429*

PCL: Proposal Cluster Learning for Weakly Supervised Object Detection. *Tang, P.*, +, *TPAMI Jan. 2020 176-191*

Progressive Representation Adaptation for Weakly Supervised Object Localization. *Li, D.*, +, *TPAMI June 2020 1424-1438*

Synthesizing Supervision for Learning Deep Saliency Network without Human Annotation. *Zhang, D.*, +, *TPAMI July 2020 1755-1769*

Weakly Supervised Learning with Multi-Stream CNN-LSTM-HMMs to Discover Sequential Parallelism in Sign Language Videos. *Koller, O.*, +, *TPAMI Sept. 2020 2306-2320*

Support vector machines

A Novel Geometric Framework on Gram Matrix Trajectories for Human Behavior Understanding. *Kacem, A.*, +, *TPAMI Jan. 2020 1-14*

Surface reconstruction

Local Deformable 3D Reconstruction with Cartan's Connections. *Parashar, S.*, +, *TPAMI Dec. 2020 3011-3026*

Symmetric matrices

Matched Filters for Noisy Induced Subgraph Detection. *Sussman, D.L.*, +, *TPAMI Nov. 2020 2887-2900*

Synchronization

Weakly Supervised Learning with Multi-Stream CNN-LSTM-HMMs to Discover Sequential Parallelism in Sign Language Videos. *Koller, O.*, +, *TPAMI Sept. 2020 2306-2320*

T

Table lookup

Photometric Stereo in Participating Media Using an Analytical Solution for Shape-Dependent Forward Scatter. *Fujimura, Y.*, +, *TPAMI March 2020 708-719*

Task analysis

H-Patches: A Benchmark and Evaluation of Handcrafted and Learned Local Descriptors. *Balntas, V.*, +, *TPAMI Nov. 2020 2825-2841*

CoRRN: Cooperative Reflection Removal Network. *Wan, R.*, +, *TPAMI Dec. 2020 2969-2982*

Deep Imbalanced Learning for Face Recognition and Attribute Prediction. *Huang, C.*, +, *TPAMI Nov. 2020 2781-2794*

Gravitational Laws of Focus of Attention. *Zanca, D.*, +, *TPAMI Dec. 2020 2983-2995*

Real-World Image Denoising with Deep Boosting. *Chen, C.*, +, *TPAMI Dec. 2020 3071-3087*

Television

Automated Video Face Labelling for Films and TV Material. *Parkhi, O.M.*, +, *TPAMI April 2020 780-792*

Tensors

Large-Scale Urban Reconstruction with Tensor Clustering and Global Boundary Refinement. *Poullis, C.*, *TPAMI May 2020 1132-1145*

Persistence Paths and Signature Features in Topological Data Analysis. *Chevyrev, I.*, +, *TPAMI Jan. 2020 192-202*

Tensor Graphical Model: Non-Convex Optimization and Statistical Inference. *Lyu, X.*, +, *TPAMI Aug. 2020 2024-2037*

Tensor Robust Principal Component Analysis with a New Tensor Nuclear Norm. *Lu, C.*, +, *TPAMI April 2020 925-938*

Testing

Learning Visual Instance Retrieval from Failure: Efficient Online Local Metric Adaptation from Negative Samples. *Zhou, J.*, +, *TPAMI Nov. 2020 2858-2873*

Text analysis

Baselines Extraction from Curved Document Images via Slope Fields Recovery. *Meng, G.*, +, *TPAMI April 2020 793-808*

Three-dimensional displays

Guest Editors' Introduction to the Special Issue on RGB-D Vision: Methods and Applications. *Bennamoun, M.*, +, *TPAMI Oct. 2020 2329-2332*

Learning Low-Dimensional Temporal Representations with Latent Alignments. *Su, B.*, +, *TPAMI Nov. 2020 2842-2857*

Local Deformable 3D Reconstruction with Cartan's Connections. *Parashar, S.*, +, *TPAMI Dec. 2020 3011-3026*

Time complexity

A Functional Representation for Graph Matching. *Wang, F.*, +, *TPAMI Nov. 2020 2737-2754*

Time series

Aggregated Wasserstein Distance and State Registration for Hidden Markov Models. *Chen, Y.*, +, *TPAMI Sept. 2020 2133-2147*

Topology

Hyperbolic Wasserstein Distance for Shape Indexing. *Shi, J.*, +, *TPAMI June 2020 1362-1376*

Persistence Paths and Signature Features in Topological Data Analysis. *Chevyrev, I.*, +, *TPAMI Jan. 2020 192-202*

Town and country planning

Large-Scale Urban Reconstruction with Tensor Clustering and Global Boundary Refinement. *Poullis, C.*, *TPAMI May 2020 1132-1145*

Traffic engineering computing

Learning Complexity-Aware Cascades for Pedestrian Detection. *Cai, Z.*, +, *TPAMI Sept. 2020 2195-2211*

The ApolloScape Open Dataset for Autonomous Driving and Its Application. *Huang, X.*, +, *TPAMI Oct. 2020 2702-2719*

Training

H-Patches: A Benchmark and Evaluation of Handcrafted and Learned Local Descriptors. *Balntas, V.*, +, *TPAMI Nov. 2020 2825-2841*

Deep Imbalanced Learning for Face Recognition and Attribute Prediction. *Huang, C.*, +, *TPAMI Nov. 2020 2781-2794*

Direction-Aware Spatial Context Features for Shadow Detection and Removal. *Hu, X.*, +, *TPAMI Nov. 2020 2795-2808*

Learning Low-Dimensional Temporal Representations with Latent Alignments. *Su, B.*, +, *TPAMI Nov. 2020 2842-2857*

Learning Visual Instance Retrieval from Failure: Efficient Online Local Metric Adaptation from Negative Samples. *Zhou, J.*, +, *TPAMI Nov. 2020 2858-2873*

One Shot Segmentation: Unifying Rigid Detection and Non-Rigid Segmentation Using Elastic Regularization. *Nascimento, J.C.*, +, *TPAMI Dec. 2020 3054-3070*

Recomputation of the Dense Layers for Performance Improvement of DCNN. *Yang, Y.*, +, *TPAMI Nov. 2020 2912-2925*

Training data

Guided Attention Inference Network. *Li, K.*, +, *TPAMI Dec. 2020 2996-3010*

Reconstruct and Represent Video Contents for Captioning via Reinforcement Learning. *Zhang, W.*, +, *TPAMI Dec. 2020 3088-3101*

Semantic Fisher Scores for Task Transfer: Using Objects to Classify Scenes. *Dixit, M.*, +, *TPAMI Dec. 2020 3102-3118*

Vocabulary-Informed Zero-Shot and Open-Set Learning. *Fu, Y.*, +, *TPAMI Dec. 2020 3136-3152*

Transform coding

Real-World Image Denoising with Deep Boosting. *Chen, C.*, +, *TPAMI Dec. 2020 3071-3087*

Tree data structures

Efficient and Robust Approximate Nearest Neighbor Search Using Hierarchical Navigable Small World Graphs. *Malkov, Y.A.*, +, *TPAMI April 2020 824-836*

Online Nearest Neighbor Search Using Hamming Weight Trees. *Eghbali, S.*, +, *TPAMI July 2020 1729-1740*

Tree searching

Globally Optimal Inlier Set Maximization for Atlanta World Understanding. *Joo, K.*, +, *TPAMI Oct. 2020 2656-2669*

Globally-Optimal Inlier Set Maximisation for Camera Pose and Correspondence Estimation. *Campbell, D.*, +, *TPAMI Feb. 2020 328-342*

Trees (mathematics)

Online Nearest Neighbor Search Using Hamming Weight Trees. *Eghbali, S.*, +, *TPAMI July 2020 1729-1740*

Skeleton-Based Online Action Prediction Using Scale Selection Network. *Liu, J.*, +, *TPAMI June 2020 1453-1467*

U

Ubiquitous computing

Zig-Zag Network for Semantic Segmentation of RGB-D Images. *Lin, D.*, +, *TPAMI Oct. 2020 2642-2655*

Unsupervised learning

Capturing the Geometry of Object Categories from Video Supervision. *Novotny, D.*, +, *TPAMI Feb. 2020 261-275*

Flexible High-Dimensional Unsupervised Learning with Missing Data. *Wei, Y.*, +, *TPAMI March 2020 610-621*

High-Fidelity Monocular Face Reconstruction Based on an Unsupervised Model-Based Face Autoencoder. *Tewari, A.*, +, *TPAMI Feb. 2020 357-370*

Pixel Transposed Convolutional Networks. *Gao, H.*, +, *TPAMI May 2020 1218-1227*

Progressive Fusion for Unsupervised Binocular Depth Estimation Using Cycled Networks. *Pilzer, A.*, +, *TPAMI Oct. 2020 2380-2395*

Unsupervised Domain Adaptation for Depth Prediction from Images. *Tonioni, A.*, +, *TPAMI Oct. 2020 2396-2409*

Unsupervised Generation of Free-Form and Parameterized Avatars. *Polyak, A.*, +, *TPAMI Feb. 2020 444-459*

Unsupervised Learning of a Hierarchical Spiking Neural Network for Optical Flow Estimation: From Events to Global Motion Perception. *Paredes-Valles, F.*, +, *TPAMI Aug. 2020 2051-2064*

Unsupervised Person Re-Identification by Deep Asymmetric Metric Embedding. *Yu, H.*, +, *TPAMI April 2020 956-973*

Unsupervised Tracklet Person Re-Identification. *Li, M.*, +, *TPAMI July 2020 1770-1782*

V

Vector quantization

Asymmetric Mapping Quantization for Nearest Neighbor Search. *Hong, W.*, +, *TPAMI July 2020 1783-1790*

Learning of Gaussian Processes in Distributed and Communication Limited Systems. *Tavassolipour, M.*, +, *TPAMI Aug. 2020 1928-1941*

Vectors

Multilabel Deep Visual-Semantic Embedding. *Yeh, M.*, +, *TPAMI June 2020 1530-1536*

Persistence Paths and Signature Features in Topological Data Analysis. *Chevyrev, I.*, +, *TPAMI Jan. 2020 192-202*

Velocity measurement

Distance Surface for Event-Based Optical Flow. *Almatrafi, M.*, +, *TPAMI July 2020 1547-1556*

Video coding

Neural Sensors: Learning Pixel Exposures for HDR Imaging and Video Compressive Sensing With Programmable Sensors. *Martel, J.N.P.*, +, *TPAMI July 2020 1642-1653*

Video sequences

Reconstruct and Represent Video Contents for Captioning via Reinforcement Learning. *Zhang, W.*, +, *TPAMI Dec. 2020 3088-3101*

Video signal processing

A Disocclusion Inpainting Framework for Depth-Based View Synthesis. *Luo, G.*, +, *TPAMI June 2020 1289-1302*

A Hybrid RNN-HMM Approach for Weakly Supervised Temporal Action Segmentation. *Kuehne, H.*, +, *TPAMI April 2020 765-779*

A Temporally-Aware Interpolation Network for Video Frame Inpainting. *Szeto, R.*, +, *TPAMI May 2020 1053-1068*

Adversarial Action Prediction Networks. *Kong, Y.*, +, *TPAMI March 2020 539-553*

Automated Video Face Labelling for Films and TV Material. *Parkhi, O.M.*, +, *TPAMI April 2020 780-792*

Capturing the Geometry of Object Categories from Video Supervision. *Novotny, D.*, +, *TPAMI Feb. 2020 261-275*

Context-Aware Query Selection for Active Learning in Event Recognition. *Hasan, M.*, +, *TPAMI March 2020 554-567*

Deep Slow Motion Video Reconstruction With Hybrid Imaging System. *Paliwal, A.*, +, *TPAMI July 2020 1557-1569*

Detailed Surface Geometry and Albedo Recovery from RGB-D Video under Natural Illumination. *Zuo, X., +, TPAMI Oct. 2020 2720-2734*

Detecting Coherent Groups in Crowd Scenes by Multiview Clustering. *Wang, Q., +, TPAMI Jan. 2020 46-58*

DoubleFusion: Real-Time Capture of Human Performances with Inner Body Shapes from a Single Depth Sensor. *Yu, T., +, TPAMI Oct. 2020 2523-2539*

Every Pixel Counts ++: Joint Learning of Geometry and Motion with 3D Holistic Understanding. *Luo, C., +, TPAMI Oct. 2020 2624-2641*

First-Person Activity Forecasting from Video with Online Inverse Reinforcement Learning. *Rhinehart, N., +, TPAMI Feb. 2020 304-317*

Force from Motion: Decoding Control Force of Activity in a First-Person Video. *Park, H.S., +, TPAMI March 2020 622-635*

Hierarchical LSTMs with Adaptive Attention for Visual Captioning. *Gao, L., +, TPAMI May 2020 1112-1131*

Learning with Privileged Information via Adversarial Discriminative Modality Distillation. *Garcia, N.C., +, TPAMI Oct. 2020 2581-2593*

Moments in Time Dataset: One Million Videos for Event Understanding. *Monfort, M., +, TPAMI Feb. 2020 502-508*

Motion-Guided Cascaded Refinement Network for Video Object Segmentation. *Hu, P., +, TPAMI Aug. 2020 1957-1967*

NTU RGB+D 120: A Large-Scale Benchmark for 3D Human Activity Understanding. *Liu, J., +, TPAMI Oct. 2020 2684-2701*

Object Detection in Videos by High Quality Object Linking. *Tang, P., +, TPAMI May 2020 1272-1278*

Online Meta Adaptation for Fast Video Object Segmentation. *Xiao, H., +, TPAMI May 2020 1205-1217*

Recurrent Temporal Aggregation Framework for Deep Video Inpainting. *Kim, D., +, TPAMI May 2020 1038-1052*

ROAM: A Rich Object Appearance Model with Application to Rotoscoping. *Perez-Rua, J., +, TPAMI Aug. 2020 1996-2010*

Sparse Coding of Shape Trajectories for Facial Expression and Action Recognition. *Tanfous, A.B., +, TPAMI Oct. 2020 2594-2607*

SPFTN: A Joint Learning Framework for Localizing and Segmenting Objects in Weakly Labeled Videos. *Zhang, D., +, TPAMI Feb. 2020 475-489*

Structured Label Inference for Visual Understanding. *Nauata, N., +, TPAMI May 2020 1257-1271*

The ApolloScape Open Dataset for Autonomous Driving and Its Application. *Huang, X., +, TPAMI Oct. 2020 2702-2719*

Unsupervised Video Matting via Sparse and Low-Rank Representation. *Zou, D., +, TPAMI June 2020 1501-1514*

Weakly Supervised Learning with Multi-Stream CNN-LSTM-HMMs to Discover Sequential Parallelism in Sign Language Videos. *Koller, O., +, TPAMI Sept. 2020 2306-2320*

Video streaming

Deep Slow Motion Video Reconstruction With Hybrid Imaging System. *Paliwal, A., +, TPAMI July 2020 1557-1569*

Group Maximum Differentiation Competition: Model Comparison with Few Samples. *Ma, K., +, TPAMI April 2020 851-864*

Video surveillance

Leader-Based Multi-Scale Attention Deep Architecture for Person Re-Identification. *Qian, X., +, TPAMI Feb. 2020 371-385*

Virtual reality

Large-Scale Urban Reconstruction with Tensor Clustering and Global Boundary Refinement. *Poullis, C., TPAMI May 2020 1132-1145*

Visual databases

Moments in Time Dataset: One Million Videos for Event Understanding. *Monfort, M., +, TPAMI Feb. 2020 502-508*

Pictionary-Style Word Guessing on Hand-Drawn Object Sketches: Dataset, Analysis and Deep Network Models. *Sarvadevabhatla, R.K., +, TPAMI Jan. 2020 221-231*

Visual perception

Defining Image Memorability Using the Visual Memory Schema. *Akagunduz, E., +, TPAMI Sept. 2020 2165-2178*

Recognizing Material Properties from Images. *Schwartz, G., +, TPAMI Aug. 2020 1981-1995*

Unsupervised Learning of a Hierarchical Spiking Neural Network for Optical Flow Estimation: From Events to Global Motion Perception. *Paredes-Valles, F., +, TPAMI Aug. 2020 2051-2064*

Visualization

Face Hallucination by Attentive Sequence Optimization with Reinforcement Learning. *Shi, Y., +, TPAMI Nov. 2020 2809-2824*

Gravitational Laws of Focus of Attention. *Zanca, D., +, TPAMI Dec. 2020 2983-2995*

Guest Editorial: Image and Video Inpainting and Denoising. *Escalera, S., +, TPAMI May 2020 1021-1024*

Guest Editors' Introduction to the Special Section on Computational Photography. *Chakrabarti, A., +, TPAMI July 2020 1545-1546*

Guided Attention Inference Network. *Li, K., +, TPAMI Dec. 2020 2996-3010*

Learning Visual Instance Retrieval from Failure: Efficient Online Local Metric Adaptation from Negative Samples. *Zhou, J., +, TPAMI Nov. 2020 2858-2873*

One Shot Segmentation: Unifying Rigid Detection and Non-Rigid Segmentation Using Elastic Regularization. *Nascimento, J.C., +, TPAMI Dec. 2020 3054-3070*

Reconstruct and Represent Video Contents for Captioning via Reinforcement Learning. *Zhang, W., +, TPAMI Dec. 2020 3088-3101*

Vocabulary-Informed Zero-Shot and Open-Set Learning. *Fu, Y., +, TPAMI Dec. 2020 3136-3152*

Vocabulary

Vocabulary-Informed Zero-Shot and Open-Set Learning. *Fu, Y., +, TPAMI Dec. 2020 3136-3152*

W

Wavelet transforms

Adversarial Cross-Spectral Face Completion for NIR-VIS Face Recognition. *He, R., +, TPAMI May 2020 1025-1037*

Weibull distribution

Large-Scale Urban Reconstruction with Tensor Clustering and Global Boundary Refinement. *Poullis, C., TPAMI May 2020 1132-1145*