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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.

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Lie, M., *see* Jordao, A., *JSTSP May 2020 828-837*
Lim, J.S., *see* Choi, K., *JSTSP Oct. 2020 1137-1150*
Lin, C., *see* Chen, Z., *JSTSP Jan. 2020 103-117*
Lin, C., *see* Liao, K., *JSTSP Jan. 2020 222-231*
Lin, D., *see* Xu, W., *JSTSP March 2020 506-516*
Lin, J.Z., Espinoza, V.M., Marks, K.L., Zanartu, M., and Mehta, D.D., Improved Subglottal Pressure Estimation From Neck-Surface Vibration in Healthy Speakers Producing Non-Modal Phonation; *JSTSP Feb. 2020 449-460*

Lin, Y., Gau, S.S., and Lee, C., A Multimodal Interlocutor-Modulated Attentional BLSTM for Classifying Autism Subgroups During Clinical Interviews; *JSTSP Feb. 2020 299-311*
Lin, Y., *see* Wang, Y., *JSTSP May 2020 623-633*
Liss, J.M., *see* Voleti, R., *JSTSP Feb. 2020 282-298*
Liu, C., *see* Zou, J., *JSTSP Jan. 2020 161-176*
Liu, C., Ding, W., Hu, Y., Xia, X., Zhang, B., Liu, J., and Doermann, D., Circulant Binary Convolutional Networks for Object Recognition; *JSTSP May 2020 884-893*
Liu, J., *see* Huang, T., *JSTSP May 2020 817-827*
Liu, J., *see* Stamoulis, D., *JSTSP May 2020 609-622*
Liu, J., *see* Liu, C., *JSTSP May 2020 884-893*
Liu, J., Sun, Y., Eldeniz, C., Gan, W., An, H., and Kamilov, U.S., RARE: Image Reconstruction Using Deep Priors Learned Without Groundtruth; *JSTSP Oct. 2020 1088-1099*
Liu, J., *see* Wu, Z., *JSTSP Oct. 2020 1163-1175*
Liu, K.J.R., *see* Liao, X., *JSTSP Aug. 2020 955-968*
Liu, S., *see* Li, L., *JSTSP Jan. 2020 130-145*
Liu, X., *see* Zhang, Q., *JSTSP Oct. 2020 1100-1111*
Liu, X., Yu, A., Wei, X., Pan, Z., and Tang, J., Multimodal MR Image Synthesis Using Gradient Prior and Adversarial Learning; *JSTSP Oct. 2020 1176-1188*
Liu, Y., *see* Chen, J., *JSTSP May 2020 848-859*
Livne, D., and Cohen, K., PoPS: Policy Pruning and Shrinking for Deep Reinforcement Learning; *JSTSP May 2020 789-801*
Long, Q., *see* Bhinge, S., *JSTSP Oct. 2020 1255-1264*
Loos, W., *see* Souza, R., *JSTSP Oct. 2020 1126-1136*
Lopes, V., *see* Neves, J.C., *JSTSP Aug. 2020 1038-1048*
Lu, J., *see* Duan, Y., *JSTSP Jan. 2020 194-208*
Luo, X., *see* Zhang, M., *JSTSP March 2020 592-602*
Luz, S., *see* Haider, F., *JSTSP Feb. 2020 272-281*
Lymberopoulos, D., *see* Stamoulis, D., *JSTSP May 2020 609-622*

M

Ma, S., *see* Sun, W., *JSTSP Jan. 2020 64-77*
Ma, S., *see* Li, J., *JSTSP March 2020 517-529*
Ma, Y., *see* Zhang, Y., *JSTSP Jan. 2020 27-37*
Ma, Z., *see* Xie, S., *JSTSP Jan. 2020 146-160*
Madhyastha, P., *see* Specia, L., *JSTSP March 2020 577-591*
Malik, H., *see* Malik, K.M., *JSTSP Aug. 2020 982-996*
Malik, K.M., Javed, A., Malik, H., and Irtaza, A., A Light-Weight Replay Detection Framework For Voice Controlled IoT Devices; *JSTSP Aug. 2020 982-996*
Manfredi, C., *see* Godino-Llorente, J.I., *JSTSP Feb. 2020 234-239*
Marban, A., *see* Wiedemann, S., *JSTSP May 2020 700-714*
Marculescu, D., *see* Fan, L., *JSTSP May 2020 605-608*
Marculescu, D., *see* Stamoulis, D., *JSTSP May 2020 609-622*
Marinc, T., *see* Wiedemann, S., *JSTSP May 2020 700-714*
Markov, K., *see* Villegas, J., *JSTSP Feb. 2020 355-366*
Marks, K.L., *see* Lin, J.Z., *JSTSP Feb. 2020 449-460*
Marpe, D., *see* Wiedemann, S., *JSTSP May 2020 700-714*
Martins, I.P., *see* Pompili, A., *JSTSP Feb. 2020 261-271*
Matlage, S., *see* Wiedemann, S., *JSTSP May 2020 700-714*
Matlock, A., *see* Wu, Z., *JSTSP Oct. 2020 1163-1175*
Matsukawa, G., *see* Kawamoto, R., *JSTSP May 2020 634-645*
Mauch, L., *see* Cardinaux, F., *JSTSP May 2020 860-870*
Mayer, O., and Stamm, M.C., Exposing Fake Images With Forensic Similarity Graphs; *JSTSP Aug. 2020 1049-1064*
Mehta, D.D., *see* Lin, J.Z., *JSTSP Feb. 2020 449-460*
Mellal, I., *see* Faraz, S., *JSTSP May 2020 646-653*
Memon, N., *see* Delp, E., *JSTSP Aug. 2020 906-909*
Metze, F., *see* Specia, L., *JSTSP March 2020 577-591*
Mi, Z., Jiang, X., Sun, T., and Xu, K., GAN-Generated Image Detection With Self-Attention Mechanism Against GAN Generator Defect; *JSTSP Aug. 2020 969-981*
Michalis, L.K., *see* Olender, M.L., *JSTSP Oct. 2020 1210-1220*
Min, X., *see* Sun, W., *JSTSP Jan. 2020 64-77*
Min, X., *see* Jia, J., *JSTSP May 2020 688-699*
Moeller, S., *see* Hosseini, S.A.H., *JSTSP Oct. 2020 1280-1291*
Monga, V., Acton, S.T., Seghouane, A., Munoz-Barrutia, A., and Ye, J.C., Editorial: Introduction to the Issue on Domain Enriched Learning for Medical Imaging; *JSTSP Oct. 2020 1068-1071*
Mrak, M., *see* Xu, M., *JSTSP Jan. 2020 2-4*
Mulligan, K., *see* Specia, L., *JSTSP March 2020 577-591*
Munoz-Barrutia, A., *see* Monga, V., *JSTSP Oct. 2020 1068-1071*

N

Nagarajan, T., *see* Celin, T.A.M., *JSTSP Feb. 2020 346-354*
Nakamura, A., *see* Cardinaux, F., *JSTSP May 2020 860-870*
Namboodiri, V.P., *see* Singh, P., *JSTSP May 2020 838-847*
Nataraj, K.S., *see* Dasgupta, H., *JSTSP Feb. 2020 461-471*
Nataraj, K.S., *see* Dasgupta, H., *JSTSP Aug. 2020 1065*
Neumann, D., *see* Wiedemann, S., *JSTSP May 2020 700-714*
Neves, J.C., Tolosana, R., Vera-Rodriguez, R., Lopes, V., Proenca, H., and Fierrez, J., GANprintR: Improved Fakes and Evaluation of the State of the Art in Face Manipulation Detection; *JSTSP Aug. 2020 1038-1048*
Ng, B.K.K., *see* Gamanayake, C., *JSTSP May 2020 802-816*
Nguyen, T., *see* Wiedemann, S., *JSTSP May 2020 700-714*
Nguyen, T., *see* Wang, Y., *JSTSP May 2020 623-633*
Ni, R., *see* Yang, P., *JSTSP Aug. 2020 947-954*

O

O'Shaughnessy, D., *see* Godino-Llorente, J.I., *JSTSP Feb. 2020 234-239*
Oh, G., *see* Cha, E., *JSTSP Oct. 2020 1292-1305*
Olender, M.L., Athanasiou, L.S., Michalis, L.K., Fotiadis, D.I., and Edelman, E.R., A Domain Enriched Deep Learning Approach to Classify Atherosclerosis Using Intravascular Ultrasound Imaging; *JSTSP Oct. 2020 1210-1220*
Ollila, E., *see* Ouzir, N., *JSTSP Oct. 2020 1244-1254*
Ostapenko, A., *see* Specia, L., *JSTSP March 2020 577-591*
Ouzir, N., Ollila, E., and Vorobyov, S.A., Data-Adaptive Similarity Measures for B-mode Ultrasound Images Using Robust Noise Models; *JSTSP Oct. 2020 1244-1254*

P

Palaskar, S., *see* Specia, L., *JSTSP March 2020 577-591*
Pan, H., *see* Badawi, D., *JSTSP May 2020 676-687*
Pan, Z., *see* Zhang, M., *JSTSP March 2020 592-602*
Pan, Z., *see* Liu, X., *JSTSP Oct. 2020 1176-1188*
Pandey, P.C., *see* Dasgupta, H., *JSTSP Feb. 2020 461-471*
Pandey, P.C., *see* Dasgupta, H., *JSTSP Aug. 2020 1065*
Patel, V.M., *see* Jose Valanarasu, J.M., *JSTSP Oct. 2020 1221-1234*
Peng, J., Yi, J., and Yuan, Z., Unsupervised Mitochondria Segmentation in EM Images via Domain Adaptive Multi-Task Learning; *JSTSP Oct. 2020 1199-1209*
Perero-Codosero, J.M., Espinoza-Cuadros, F., Anton-Martin, J., Barbero-Alvarez, M.A., and Hernandez-Gomez, L.A., Modeling Obstructive Sleep Apnea Voices Using Deep Neural Network Embeddings and Domain-Adversarial Training; *JSTSP Feb. 2020 240-250*
Perkins, J., *see* Villegas, J., *JSTSP Feb. 2020 355-366*
Petitjean, C., *see* Jurdi, R.E., *JSTSP Oct. 2020 1189-1198*
Piva, A., *see* Yang, P., *JSTSP Aug. 2020 947-954*
Pompili, A., Abad, A., de Matos, D.M., and Martins, I.P., Pragmatic Aspects of Discourse Production for the Automatic Identification of Alzheimer's Disease; *JSTSP Feb. 2020 261-271*
Prasad, R., *see* Cerutti, G., *JSTSP May 2020 654-664*
Priyantha, B., *see* Stamoulis, D., *JSTSP May 2020 609-622*
Proenca, H., *see* Neves, J.C., *JSTSP Aug. 2020 1038-1048*
Ptucha, R., *see* Chintha, A., *JSTSP Aug. 2020 1024-1037*

Q

Qin, Y., Lee, T., and Kong, A.P.H., Automatic Assessment of Speech Impairment in Cantonese-Speaking People with Aphasia; *JSTSP Feb. 2020 331-345*
Qu, H., *see* Zhang, M., *JSTSP March 2020 592-602*
Queluz, M.P., *see* Jabar, F., *JSTSP Jan. 2020 49-63*

R

Radke, R.J., *see* Zhang, L., *JSTSP March 2020 554-567*
Rai, P., *see* Singh, P., *JSTSP May 2020 838-847*
Ren, P., *see* Jia, J., *JSTSP May 2020 688-699*
Rocha, A., *see* Li, H., *JSTSP Aug. 2020 933-946*
Rocha, A., *see* Delp, E., *JSTSP Aug. 2020 906-909*
Rose, R., *see* He, X., *JSTSP March 2020 474-477*
Ruthotto, L., *see* Ephrath, J., *JSTSP May 2020 894-904*

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Samek, W., *see* Wiedemann, S., *JSTSP May 2020 700-714*
Samragh, M., *see* Javaheripi, M., *JSTSP May 2020 750-764*
Sanabria, R., *see* Specia, L., *JSTSP March 2020 577-591*
Schuller, B., *see* Zhao, Z., *JSTSP Feb. 2020 423-434*
Schwartz, W.R., *see* Jordao, A., *JSTSP May 2020 828-837*
Schwarz, H., *see* Wiedemann, S., *JSTSP May 2020 700-714*
Seghouane, A., *see* Monga, V., *JSTSP Oct. 2020 1068-1071*
Sethu, V., *see* Huang, Z., *JSTSP Feb. 2020 435-448*
Shahdloo, M., *see* Dar, S.U., *JSTSP Oct. 2020 1072-1087*
Shahin, M., Zafar, U., and Ahmed, B., The Automatic Detection of Speech Disorders in Children: Challenges, Opportunities, and Preliminary Results; *JSTSP Feb. 2020 400-412*
Shan, S., *see* Gao, D., *JSTSP March 2020 494-505*
Shen, J., *see* Wang, Y., *JSTSP May 2020 623-633*
Shen, Q., *see* Xie, S., *JSTSP Jan. 2020 146-160*
Shi, G., *see* Huang, T., *JSTSP May 2020 817-827*
Shullani, D., *see* Yang, P., *JSTSP Aug. 2020 947-954*
Simantiris, G., and Tziritas, G., Cardiac MRI Segmentation With a Dilated CNN Incorporating Domain-Specific Constraints; *JSTSP Oct. 2020 1235-1243*
Simply, R.M., Dafna, E., and Zigel, Y., Diagnosis of Obstructive Sleep Apnea Using Speech Signals From Awake Subjects; *JSTSP Feb. 2020 251-260*
Singh, P., Verma, V.K., Rai, P., and Namboodiri, V.P., Acceleration of Deep Convolutional Neural Networks Using Adaptive Filter Pruning; *JSTSP May 2020 838-847*
Sohrawardi, S.J., *see* Chintha, A., *JSTSP Aug. 2020 1024-1037*
Soltanayev, S., *see* Kim, K., *JSTSP Oct. 2020 1112-1125*
Souza, R., Beauferris, Y., Loos, W., Lebel, R.M., and Frayne, R., Enhanced Deep-Learning-Based Magnetic Resonance Image Reconstruction by Leveraging Prior Subject-Specific Brain Imaging: Proof-of-Concept Using a Cohort of Presumed Normal Subjects; *JSTSP Oct. 2020 1126-1136*
Specia, L., Barrault, L., Caglayan, O., Duarte, A., Elliott, D., Gella, S., Holzenberger, N., Lala, C., Lee, S.J., Libovicky, J., Madhyastha, P., Metze, F., Mulligan, K., Ostapenko, A., Palaskar, S., Sanabria, R., Wang, J., and Arora, R., Grounded Sequence to Sequence Transduction; *JSTSP March 2020 577-591*
Sreedevi, N., *see* Chandrashekar, H.M., *JSTSP Feb. 2020 390-399*
Stamm, M.C., *see* Mayer, O., *JSTSP Aug. 2020 1049-1064*
Stamoulis, D., Ding, R., Wang, D., Lymberopoulos, D., Priyantha, B., Liu, J., and Marculescu, D., Single-Path Mobile AutoML: Efficient ConvNet Design and NAS Hyperparameter Optimization; *JSTSP May 2020 609-622*
Steinbach, E., *see* Zou, J., *JSTSP Jan. 2020 161-176*
Strik, H., *see* Bhat, C., *JSTSP Feb. 2020 322-330*
Su, J., *see* Li, J., *JSTSP Jan. 2020 38-48*
Sun, T., *see* Mi, Z., *JSTSP Aug. 2020 969-981*
Sun, W., Min, X., Zhai, G., Gu, K., Duan, H., and Ma, S., MC360IQA: A Multi-channel CNN for Blind 360-Degree Image Quality Assessment; *JSTSP Jan. 2020 64-77*
Sun, Y., *see* Zhou, Y., *JSTSP Jan. 2020 118-129*
Sun, Y., *see* Liu, J., *JSTSP Oct. 2020 1088-1099*
Sun, Y., *see* Wu, Z., *JSTSP Oct. 2020 1163-1175*
Sun, Z.H., Binary Outer Product Expansion of Convolutional Kernels; *JSTSP May 2020 871-883*
Sun, Z.H., *see* Zhang, X., *JSTSP Aug. 2020 1012-1023*

T

Taichi, M., *see* Kawamoto, R., *JSTSP May 2020 634-645*
Tan, K., Xu, Y., Zhang, S., Yu, M., and Yu, D., Audio-Visual Speech Separation and Dereverberation With a Two-Stage Multimodal Network; *JSTSP March 2020 542-553*
Tang, J., *see* Liu, X., *JSTSP Oct. 2020 1176-1188*
Tao, J., *see* Zhao, Z., *JSTSP Feb. 2020 423-434*
Tao, X., *see* Duan, Y., *JSTSP Jan. 2020 194-208*
Thai, B., *see* Chintha, A., *JSTSP Aug. 2020 1024-1037*
Tian, L., *see* Zhou, Y., *JSTSP Jan. 2020 118-129*
Tian, L., *see* Wu, Z., *JSTSP Oct. 2020 1163-1175*
Tian, Y., *see* Li, J., *JSTSP Jan. 2020 38-48*
Tiedemann, S., *see* Cardinaux, F., *JSTSP May 2020 860-870*
Tinaz, B., *see* Dar, S.U., *JSTSP Oct. 2020 1072-1087*
Tolosana, R., *see* Neves, J.C., *JSTSP Aug. 2020 1038-1048*
Trancoso, I., *see* He, X., *JSTSP March 2020 474-477*
Treister, E., *see* Ephrath, J., *JSTSP May 2020 894-904*
Turek, M., *see* Delp, E., *JSTSP Aug. 2020 906-909*
Tziritas, G., *see* Simantiris, G., *JSTSP Oct. 2020 1235-1243*

U

Uhlich, S., *see* Cardinaux, F., *JSTSP May 2020 860-870*

V

Vera-Rodriguez, R., *see* Neves, J.C., *JSTSP Aug. 2020 1038-1048*
Verdoliva, L., Media Forensics and DeepFakes: An Overview; *JSTSP Aug. 2020 910-932*
Verdoliva, L., *see* Delp, E., *JSTSP Aug. 2020 906-909*
Verma, V.K., *see* Singh, P., *JSTSP May 2020 838-847*
Vijayalakshmi, P., *see* Celin, T.A.M., *JSTSP Feb. 2020 346-354*
Villegas, J., Markov, K., Perkins, J., and Lee, S.J., Prediction of Creaky Speech by Recurrent Neural Networks Using Psychoacoustic Roughness; *JSTSP Feb. 2020 355-366*
Voleti, R., Liss, J.M., and Berisha, V., A Review of Automated Speech and Language Features for Assessment of Cognitive and Thought Disorders; *JSTSP Feb. 2020 282-298*
Vorobyov, S.A., *see* Ouzir, N., *JSTSP Oct. 2020 1244-1254*

W

Wang, D., *see* Stamoulis, D., *JSTSP May 2020 609-622*
Wang, F., *see* Fei, Z., *JSTSP Jan. 2020 78-88*
Wang, H., *see* Zhao, Z., *JSTSP Feb. 2020 423-434*
Wang, H., Hu, X., Zhang, Q., Wang, Y., Yu, L., and Hu, H., Structured Pruning for Efficient Convolutional Neural Networks via Incremental Regularization; *JSTSP May 2020 775-788*
Wang, J., *see* Fei, Z., *JSTSP Jan. 2020 78-88*
Wang, J., Bai, H., Wu, J., and Cheng, J., Bayesian Automatic Model Compression; *JSTSP May 2020 727-736*
Wang, J., *see* Specia, L., *JSTSP March 2020 577-591*
Wang, J., *see* Xu, W., *JSTSP March 2020 506-516*
Wang, P., *see* Jose Valanarasu, J.M., *JSTSP Oct. 2020 1221-1234*
Wang, R., *see* Gao, D., *JSTSP March 2020 494-505*
Wang, S., *see* Li, H., *JSTSP Aug. 2020 933-946*
Wang, Y., Shen, J., Hu, T., Xu, P., Nguyen, T., Baraniuk, R., Wang, Z., and Lin, Y., Dual Dynamic Inference: Enabling More Efficient, Adaptive, and Controllable Deep Inference; *JSTSP May 2020 623-633*
Wang, Y., *see* Wang, H., *JSTSP May 2020 775-788*

Wang, Y., *see* Xu, W., *JSTSP March 2020 506-516*
Wang, Y., *see* Li, J., *JSTSP March 2020 517-529*
Wang, Z., *see* Wang, Y., *JSTSP May 2020 623-633*
Wang, Z., *see* Chen, Y., *JSTSP Aug. 2020 997-1011*
Wang, Z.J., *see* Chen, Y., *JSTSP Aug. 2020 997-1011*
Watanabe, D., *see* Kawamoto, R., *JSTSP May 2020 634-645*
Wei, X., *see* Yuan, H., *JSTSP Jan. 2020 177-193*
Wei, X., *see* Liu, X., *JSTSP Oct. 2020 1176-1188*
Wiedemann, S., Kirchhoffer, H., Matlage, S., Haase, P., Marban, A., Marinc, T., Neumann, D., Nguyen, T., Schwarz, H., Wiegand, T., Marpe, D., and Samek, W., DeepCABAC: A Universal Compression Algorithm for Deep Neural Networks; *JSTSP May 2020 700-714*
Wiegand, T., *see* Wiedemann, S., *JSTSP May 2020 700-714*
Wiles, J., *see* Back, A.D., *JSTSP Feb. 2020 312-321*
Wright, M., *see* Chintha, A., *JSTSP Aug. 2020 1024-1037*
Wu, F., *see* Huang, T., *JSTSP May 2020 817-827*
Wu, J., *see* Wang, J., *JSTSP May 2020 727-736*
Wu, J., *see* Zhang, M., *JSTSP March 2020 592-602*
Wu, Y., *see* Xu, W., *JSTSP March 2020 506-516*
Wu, Z., Sun, Y., Matlock, A., Liu, J., Tian, L., and Kamilov, U.S., SIMBA: Scalable Inversion in Optical Tomography Using Deep Denoising Priors; *JSTSP Oct. 2020 1163-1175*

X

Xia, C., *see* Li, J., *JSTSP Jan. 2020 38-48*
Xia, X., *see* Liu, C., *JSTSP May 2020 884-893*
Xie, S., Xu, Y., Li, Y., Shen, Q., Ma, Z., and Zhang, W., Perceptually Optimized Quality Adaptation of Viewport-Dependent Omnidirectional Video Streaming; *JSTSP Jan. 2020 146-160*
Xie, X., *see* Fei, Z., *JSTSP Jan. 2020 78-88*
Xiong, H., *see* Zou, J., *JSTSP Jan. 2020 161-176*
Xu, G., *see* Xu, W., *JSTSP March 2020 506-516*
Xu, J., *see* Chen, Z., *JSTSP Jan. 2020 103-117*
Xu, J., *see* Li, J., *JSTSP March 2020 517-529*
Xu, K., *see* Mi, Z., *JSTSP Aug. 2020 969-981*
Xu, M., Borji, A., Zhu, C., Delp, E., Mrak, M., and Le Callet, P., Introduction to the Issue on Perception-Driven 360° Video Processing; *JSTSP Jan. 2020 2-4*
Xu, M., Li, C., Zhang, S., and Callet, P.L., State-of-the-Art in 360° Video/Image Processing: Perception, Assessment and Compression; *JSTSP Jan. 2020 5-26*
Xu, P., *see* Wang, Y., *JSTSP May 2020 623-633*
Xu, W., Wang, J., Wang, Y., Xu, G., Lin, D., Dai, W., and Wu, Y., Where is the Model Looking At? – Concentrate and Explain the Network Attention; *JSTSP March 2020 506-516*
Xu, Y., *see* Xie, S., *JSTSP Jan. 2020 146-160*
Xu, Y., *see* Tan, K., *JSTSP March 2020 542-553*
Xu, Y., *see* Gu, R., *JSTSP March 2020 530-541*

Y

Yaman, B., *see* Hosseini, S.A.H., *JSTSP Oct. 2020 1280-1291*
Yan, N., *see* Li, L., *JSTSP Jan. 2020 130-145*
Yang, J., *see* Chen, J., *JSTSP May 2020 848-859*
Yang, P., Baracchi, D., Iuliani, M., Shullani, D., Ni, R., Zhao, Y., and Piva, A., Efficient Video Integrity Analysis Through Container Characterization; *JSTSP Aug. 2020 947-954*
Yang, Q., *see* Zou, J., *JSTSP Jan. 2020 161-176*
Yang, X., *see* Jia, J., *JSTSP May 2020 688-699*
Yang, Y., *see* Zhang, Q., *JSTSP Oct. 2020 1100-1111*
Yang, Z., *see* Zhang, C., *JSTSP March 2020 478-493*
Yap, K., *see* Zhao, H., *JSTSP May 2020 665-675*
Yasarla, R., *see* Jose Valanarasu, J.M., *JSTSP Oct. 2020 1221-1234*
Ye, J.C., *see* Monga, V., *JSTSP Oct. 2020 1068-1071*
Ye, J.C., *see* Cha, E., *JSTSP Oct. 2020 1292-1305*
Ye, W., *see* Li, J., *JSTSP Jan. 2020 209-221*
Yi, J., *see* Peng, J., *JSTSP Oct. 2020 1199-1209*
Yoshimoto, M., *see* Kawamoto, R., *JSTSP May 2020 634-645*
Yoshiyama, K., *see* Cardinaux, F., *JSTSP May 2020 860-870*
Yu, A., *see* Liu, X., *JSTSP Oct. 2020 1176-1188*
Yu, D., *see* Tan, K., *JSTSP March 2020 542-553*
Yu, D., *see* Gu, R., *JSTSP March 2020 530-541*
Yu, K., *see* Li, J., *JSTSP Jan. 2020 209-221*
Yu, L., *see* Wang, H., *JSTSP May 2020 775-788*
Yu, M., *see* Tan, K., *JSTSP March 2020 542-553*
Yu, X., *see* Chen, M., *JSTSP Feb. 2020 472*
Yu, X., *see* Chen, M., *JSTSP Jan. 2020 89-102*
Yuan, H., Zhao, S., Hou, J., Wei, X., and Kwong, S., Spatial and Temporal Consistency-Aware Dynamic Adaptive Streaming for 360-Degree Videos; *JSTSP Jan. 2020 177-193*
Yuan, Z., *see* Peng, J., *JSTSP Oct. 2020 1199-1209*
Yuen, C., *see* Gamanayake, C., *JSTSP May 2020 802-816*
Yurt, M., *see* Dar, S.U., *JSTSP Oct. 2020 1072-1087*

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Zanartu, M., *see* Lin, J.Z., *JSTSP Feb. 2020 449-460*
Zhai, G., *see* Sun, W., *JSTSP Jan. 2020 64-77*
Zhai, G., *see* Jia, J., *JSTSP May 2020 688-699*
Zhang, B., *see* Liu, C., *JSTSP May 2020 884-893*
Zhang, C., Yang, Z., He, X., and Deng, L., Multimodal Intelligence: Representation Learning, Information Fusion, and Applications; *JSTSP March 2020 478-493*
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