

# **2022 IEEE International Conference on Image Processing (ICIP 2022)**

**Bordeaux, France  
16-19 October 2022**

**Pages 1-615**



**IEEE Catalog Number: CFP22CIP-POD  
ISBN: 978-1-6654-9621-6**

**Copyright © 2022 by the Institute of Electrical and Electronics Engineers, Inc.  
All Rights Reserved**

*Copyright and Reprint Permissions:* Abstracting is permitted with credit to the source. Libraries are permitted to photocopy beyond the limit of U.S. copyright law for private use of patrons those articles in this volume that carry a code at the bottom of the first page, provided the per-copy fee indicated in the code is paid through Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923.

For other copying, reprint or republication permission, write to IEEE Copyrights Manager, IEEE Service Center, 445 Hoes Lane, Piscataway, NJ 08854. All rights reserved.

***\*\*\* This is a print representation of what appears in the IEEE Digital Library. Some format issues inherent in the e-media version may also appear in this print version.***

IEEE Catalog Number:	CFP22CIP-POD
ISBN (Print-On-Demand):	978-1-6654-9621-6
ISBN (Online):	978-1-6654-9620-9
ISSN:	1522-4880

**Additional Copies of This Publication Are Available From:**

Curran Associates, Inc  
57 Morehouse Lane  
Red Hook, NY 12571 USA  
Phone: (845) 758-0400  
Fax: (845) 758-2633  
E-mail: [curran@proceedings.com](mailto:curran@proceedings.com)  
Web: [www.proceedings.com](http://www.proceedings.com)

CURRAN ASSOCIATES INC.  
**proceedings**  
.com

## TABLE OF CONTENTS

Histogram-Based Transformation Function Estimation for Low-Light Image Enhancement .....	1
<i>Jaemin Park, An Gia Vien, Jin-Hwan Kim, Chul Lee</i>	
Self-Supervised Learning of Optical Flow, Depth, Camera Pose and Rigidity Segmentation with Occlusion Handling .....	6
<i>Rokia Abdein, Xuezhi Xiang, Ning Lv</i>	
RW-HAZE: A Real-World Benchmark Dataset to Evaluate Quantitatively Dehazing Algorithms .....	11
<i>Jiyou Chen, Shengchun Wang, Xin Liu, Gaobo Yang</i>	
Hypergraph Convolutional Networks for Weakly-Supervised Semantic Segmentation.....	16
<i>Jhony H. Giraldo, Vincenzo Scarrica, Antonino Staiano, Francesco Camastra, Thierry Bouwmans</i>	
Semi-Supervised Ranking for Object Image Blur Assessment.....	21
<i>Qiang Li, Zhaoliang Yao, Jingjing Wang, Ye Tian, Pengju Yang, Di Xie, Shiliang Pu</i>	
Explore Spatial and Channel Attention in Image Quality Assessment .....	26
<i>Junyong You, Jie Yan</i>	
Enhanced Deep Animation Video Interpolation .....	31
<i>Wang Shen, Cheng Ming, Wenbo Bao, Guangtao Zhai, Li Chenn, Zhiyong Gao</i>	
Satellite Image Change Detection Using Disjoint Information and Local Dissimilarity Map .....	36
<i>Moustapha Diaw, Jérôme Landré, Agnès Delahaies, Frédéric Morain-Nicolier, Florent Retraint</i>	
Automatic Moving Pose Grading for Golf Swing in Sports.....	41
<i>Yanting Zhang, Qing'ao Wang, Fuyu Tu, Zijian Wang</i>	
Beyond Bjøntegaard: Limits of Video Compression Performance Comparisons.....	46
<i>Christian Herglotz, Matthias Kränzler, Ruben Mons, André Kaup</i>	
Measuring Class-Imbalance Sensitivity of Deterministic Performance Evaluation Metrics .....	51
<i>Azim Ahmadzadeh, Rafal A. Angryk</i>	
Estimating Brain Age with Global and Local Dependencies.....	56
<i>Yanwu Yang, Xutao Guo, Zhikai Chang, Chenfei Ye, Yang Xiang, Haiyan Lv, Ting Ma</i>	
Spatial-Semantic Attention for Grounded Image Captioning .....	61
<i>Wenzhe Hu, Lanxiao Wang, Linfeng Xu</i>	
Unsupervised Point Cloud Pre-Training Via Contrasting and Clustering.....	66
<i>Guofeng Mei, Xiaoshui Huang, Juan Liu, Jian Zhang, Qiang Wu</i>	
Deep Weighted Consensus Dense Correspondence Confidence Maps for 3d Shape Registration .....	71
<i>Dvir Ginzburg, Dan Raviv</i>	
Refining Self-Supervised Learning in Imaging: Beyond Linear Metric.....	76
<i>Bo Jiang, Hamid Krim, Tianfu Wu, Derya Cansever</i>	
Towards Efficient Variational Auto-Encoder Using Wasserstein Distance.....	81
<i>Zichuan Chen, Peng Liu</i>	

Frequency-Relevant Residual Learning for Multi-Modal Image Denoising .....	86
<i>Xiongwei Liu, Zehua Sheng, Hui-Liang Shen</i>	
Robust and Accurate Object Detection Via Self-Knowledge Distillation .....	91
<i>Weipeng Xu, Pengzhi Chu, Renhao Xie, Xiongziyan Xiao, Hongcheng Huang</i>	
Face Photo Synthesis Via Intermediate Semantic Enhancement Generative Adversarial Network .....	96
<i>Haoxian Li, Jiaying Zheng, Feng Liu</i>	
MLP-Stereo: Heterogeneous Feature Fusion in MLP for Stereo Matching.....	101
<i>Shuiqiang Ye, Pengcheng Zeng, Pengfei Li, Weiqi Wang, Wang Xinan, Yong Zhao</i>	
Reverse Error Modeling for Improved Semantic Segmentation.....	106
<i>Christopher B. Kuhn, Markus Hofbauer, Goran Petrovic, Eckehard Steinbach</i>	
Hiding Images into Images with Real-World Robustness .....	111
<i>Qichao Ying, Hang Zhou, Xianhan Zeng, Haisheng Xu, Zhenxing Qian, Xinpeng Zhang</i>	
Depth-Cooperated Trimodal Network for Video Salient Object Detection.....	116
<i>Yukang Lu, Dingyao Min, Keren Fu, Qijun Zhao</i>	
Multi-Label Aerial Image Classification Based on Image-Specific Concept Graphs.....	121
<i>Dan Lin, Zhikui Chen, Liang Zhao, Kai Wang</i>	
Random Generated Dictionaries for Convolutional Sparse Coding: An ELM Interpretation for Simple CSC Applications .....	126
<i>Paul Rodriguez</i>	
Low-Complexity Scaler Based on Convolutional Neural Networks for Adaptive Video Streaming .....	131
<i>Jaehwan Kim, Dongkyu Kim, Min Woo Park, Chaeun Lee, Youngo Park, Kwang Pyo Choi</i>	
Adversarial Examples for Good: Adversarial Examples Guided Imbalanced Learning.....	136
<i>Jie Zhang, Lei Zhang, Gang Li, Chao Wu</i>	
Single Image Dehazing Via Model-Based Deep-Learning.....	141
<i>Zhengguo Li, Chaobing Zheng, Haiyan Shu, Shiqian Wu</i>	
Face Recognition for Fisheye Images.....	146
<i>Yi-Cheng Lo, Chiao-Chun Huang, Yueh-Feng Tsai, I-Chan Lo, An-Yeu Andy Wu, Homer H. Chen</i>	
A Deep Ensemble Learning Approach to Lung CT Segmentation for Covid-19 Severity Assessment.....	151
<i>Tal Ben-Haim, Ron Moshe Sofer, Gal Ben-Arie, Ilan Shelef, Tammy Riklin Raviv</i>	
CBPT: A New Backbone for Enhancing Information Transmission of Vision Transformers.....	156
<i>Wenxin Yu, Hongru Zhang, Tianxiang Lan, Yucheng Hu, Dong Yin</i>	
Pose Calibrated Feature Aggregation for Face Set Recognition.....	161
<i>Ibrahim Hasani, Omar Arif</i>	
A Multi-Stage Duplex Fusion Convnet for Aerial Scene Classification.....	166
<i>Jingjun Yi, Beichen Zhou</i>	
Taxonomy Driven Learning of Semantic Hierarchy of Classes .....	171
<i>Ranajoy Sadhukhan, Ankita Chatterjee, Jayanta Mukhopadhyay, Amit Patra</i>	

Efficient Clustering Using Alternating Minimization and a Projection-Gradient Method for Dimension Reduction .....	176
<i>Cyprien Gilet, Marie Deprez, Pacal Barbry, Jean-Baptiste Caillaud, Michel Barlaud</i>	
Crowd-Powered Face Manipulation Detection: Fusing Human Examiner Decisions .....	181
<i>C. Rathgeb, R. Nichols, M. Ibsen, P. Drozdowski, C. Busch</i>	
Hyperspectral Reconstruction Using Auxiliary Rgb Learning from a Snapshot Image .....	186
<i>Kazuhiro Yamawaki, Kouhei Yorimoto, Xian-Hua Han</i>	
Robust 3d Cell Segmentation: Extending the View of Cellpose .....	191
<i>Dennis Eschweiler, Richard S. Smith, Johannes Stegmaier</i>	
Practical Bulk Denoising of Large Binary Images .....	196
<i>Ignacio Ramírez Paulino</i>	
Temporal Axial Attention for Lidar-Based 3d Object Detection in Autonomous Driving.....	201
<i>Manuel Carranza-García, José C. Riquelme, Avideh Zakhor</i>	
Semi-Supervised Deep Convolutional Transform Learning for Hyperspectral Image Classification .....	206
<i>Shikha Singh, Angshul Majumdar, Emilie Chouzenoux, Giovanni Chierchia</i>	
Deep Convolutional K-Means Clustering .....	211
<i>Anurag Goel, Angshul Majumdar, Emilie Chouzenoux, Giovanni Chierchia</i>	
Reinforcing Neuron Extraction from Calcium Imaging Data Via Depth-Estimation Constrained Nonnegative Matrix Factorization.....	216
<i>Peixian Zhuang, Jiamin Wu</i>	
Semantic Unfolding of Stylegan Latent Space .....	221
<i>Mustafa Shukor, Xu Yao, Bharath Bushan Damodaran, Pierre Hellier</i>	
An Unsupervised Parameter-Free Nuclei Segmentation Method for Histology Images .....	226
<i>Vasileios Magoulianitis, Peida Han, Yijing Yang, C.-C. Jay Kuo</i>	
Efficient and Accurate Skeleton-Based Two-Person Interaction Recognition Using Inter-And Intra-Body Graphs.....	231
<i>Yoshiki Ito, Quan Kong, Kenichi Morita, Tomoaki Yoshinaga</i>	
Self-Supervised Cooperative Colorization of Achromatic Faces .....	236
<i>Hitika Tiwari, Venkatesh K. Subramanian</i>	
Bregman Plug-And-Play Priors .....	241
<i>Abdullah H. Al-Shabli, Xiaojian Xu, Ivan Selesnick, Ulugbek S. Kamilov</i>	
A Cognitive Perspective on Subjective and Objective Diagnostic Image Quality Models.....	246
<i>J. E. Caviedes, B. K. Patel, R. Gutzwiller, B. Li, R. Bhat, S. Chhabra</i>	
Robust Temporally-Coherent Strategy for Few-Shot Video Instance Segmentation.....	251
<i>Qiuyue Wang, Songyang Zhang, Xuming He</i>	
Spatial Sensitive GRAD-CAM: Visual Explanations for Object Detection by Incorporating Spatial Sensitivity.....	256
<i>Toshinori Yamauchi, Masayoshi Ishikawa</i>	
Multi-Granularity Aggregation Transformer for Light Field Image Super-Resolution .....	261
<i>Zijian Wang, Yao Lu</i>	

Computing Curvature, Mean Curvature and Weighted Mean Curvature.....	266
<i>Yuanhao Gong</i>	
Spatial Moment Pooling Improves Neural Image Assessment.....	271
<i>Tongda Xu, Yifan Shao, Yan Wang, Hongwei Qin</i>	
SRK-Net: Learning to Detect Repeatable Keypoints with Local Saliency Knowledge .....	276
<i>Yujie Fu, Zheng Rong, Yihong Wu</i>	
Diverse Generative Perturbations on Attention Space for Transferable Adversarial Attacks .....	281
<i>Woo Jae Kim, Seunghoon Hong, Sung-Eui Yoon</i>	
Streaming-Capable High-Performance Architecture of Learned Image Compression Codecs .....	286
<i>Fangzheng Lin, Heming Sun, Jiro Katto</i>	
Episode Difficulty Based Sampling Method for Few-Shot Classification .....	296
<i>Hochang Rhee, Nam Ik Cho</i>	
RWN: Robust Watermarking Network for Image Cropping Localization.....	301
<i>Qichao Ying, Xiaoxiao Hu, Xiangyu Zhang, Zhenxing Qian, Sheng Li, Xinpeng Zhang</i>	
Automatic Defect Segmentation by Unsupervised Anomaly Learning .....	306
<i>Nati Ofir, Ran Yacobi, Omer Granoviter, Boris Levant, Ore Shtalrid</i>	
Eogface: Deep Face Recognition Via Extensional Logits .....	311
<i>Xingying Zhao, Hao Jiang, Dong Shen</i>	
AIVC: Artificial Intelligence Based Video Codec.....	316
<i>Théo Ladune, Pierrick Philippe</i>	
Automatic Detection of Sentimentality from Facial Expressions.....	321
<i>Mina Bishay, Jay Turcot, Graham Page, Mohammad Mavadati</i>	
Residual Graph Attention Network and Expression-Respect Data Augmentation Aided Visual Grounding.....	326
<i>Jia Wang, Hung-Yi Wu, Jun-Cheng Chen, Hong-Han Shuai, Wen-Huang Cheng</i>	
Usage of Vehicle Re-Identification Models for Improved Persistent Multiple Object Tracking in Wide Area Motion Imagery .....	331
<i>Lars Sommer, Wolfgang Krüger</i>	
Back to Old Constraints to Jointly Supervise Learning Depth, Camera Motion and Optical Flow in a Monocular Video .....	336
<i>Hicham Sekkati, Jean-Francois Lapointe</i>	
Clustering by Directly Disentangling Latent Space .....	341
<i>Fei Ding, Yin Yang, Feng Luo</i>	
Multi Object Tracking Based on Uncertainty-Aware RE-ID.....	346
<i>Takuya Ogawa, Shoji Yachida, Toshinori Hosoi</i>	
Online Adaptive Personalization for Face Anti-Spoofing .....	351
<i>Davide Belli, Debasmith Das, Bence Major, Fatih Porikli</i>	
Efficient Transformer with Locally Shared Attention for Video Quality Assessment .....	356
<i>Junyong You, Yuan Lin</i>	

Object-Aware Self-Supervised Multi-Label Learning.....	361
<i>Xu Kaixin, Liu Liyang, Zhao Ziyuan, Zeng Zeng, Bharadwaj Veeravalli</i>	
Structured Dropconnect for Uncertainty Inference in Image Classification.....	366
<i>Wenqing Zheng, Jiyang Xie, Xian Sun, Zhanyu Ma</i>	
Automatic Illumination of Flat-Colored Drawings by 3D Augmentation of 2D Silhouettes .....	371
<i>David Tschumperlé, Christine Porquet, Amal Mahboubi</i>	
Conditional RGB-T Fusion for Effective Crowd Counting.....	376
<i>Esha Pahwa, Sanjeet Kapadia, Achleshwar Luthra, Shreyas Sheeranali</i>	
Utility and Feasibility of a Center Surround Event Camera.....	381
<i>Tobi Delbruck, Chenghan Li, Rui Graca, Brian McReynolds</i>	
Context-Aware Hierarchical Transformer for Fine-Grained Video-Text Retrieval .....	386
<i>Mingliang Chen, Weimin Zhang, Yurui Ren, Ge Li</i>	
Comparing Vector Fields Across Surfaces: Interest for Characterizing the Orientations of Cortical Folds.....	391
<i>Amine Bohi, Guillaume Auzias, Camille Noûs, Julien Lefèvre</i>	
Lightweight Dual-Domain Network for Real-Time Medical Image Segmentation.....	396
<i>Libo Liu, Xinxin Fan, Xiaodong Zhang, Qingmao Hu</i>	
MMGL: Multi-Scale Multi-View Global-Local Contrastive Learning for Semi-Supervised Cardiac Image Segmentation .....	401
<i>Ziyuan Zhao, Jinxuan Hu, Zeng Zeng, Xulei Yang, Peisheng Qian, Bharadwaj Veeravalli, Cuntai Guan</i>	
Forensic License Plate Recognition with Compression-Informed Transformers .....	406
<i>Denise Moussa, Anatol Maier, Andreas Spruck, Jürgen Seiler, Christian Riess</i>	
Exploiting Spatial Sparsity for Event Cameras with Visual Transformers .....	411
<i>Zuowen Wang, Yuhuang Hu, Shih-Chii Liu</i>	
Direct Handheld Burst Imaging to Simulated Defocus .....	416
<i>Meng-Lin Wu, Venkata Ravi Kiran Dayana, Hau Hwang</i>	
Improving Model Adaptation for Semantic Segmentation by Learning Model-Invariant Features with Multiple Source-Domain Models.....	421
<i>Zongyao Li, Ren Togo, Takahiro Ogawa, Miki Haseyama</i>	
Monotonically Convergent Regularization by Denoising .....	426
<i>Yuyang Hu, Jiaming Liu, Xiaojian Xu, Ulugbek S. Kamilov</i>	
Smile: Sequence-To-Sequence Domain Adaptation with Minimizing Latent Entropy for Text Image Recognition .....	431
<i>Yen-Cheng Chang, Yi-Chang Chen, Yu-Chuan Chang, Yi-Ren Yeh</i>	
Masked Face Recognition Via Self-Attention Based Local Consistency Regularization.....	436
<i>Dongyun Lin, Yiqun Li, Yi Cheng, Shitala Prasad, Aiyuan Guo</i>	
MLSA-UNet: End-To-End Multi-Level Spatial Attention Guided UNet for Industrial Defect Segmentation.....	441
<i>Dongyun Lin, Yi Cheng, Yiqun Li, Shitala Prasad, Aiyuan Guo</i>	

Image Deblurring Using Deep Multi-Scale Distortion Prior .....	446
<i>Irina Kim, Dongpan Lim, Youngil Seo, Jeongguk Lee, Wooseok Choi, Seongwook Song</i>	
Blind Video Quality Assessment Via Space-Time Slice Statistics.....	451
<i>Qi Zheng, Zhengzhong Tu, Zhijian Hao, Xiaoyang Zeng, Alan C. Bovik, Yibo Fan</i>	
Iterative Contrastive Learning for Single Image Raindrop Removal .....	456
<i>Yang Xulei, Qian Peisheng, Wang Li, Zhao Shenghao, Chen Cen, Li Xiaoli, Zeng Zeng</i>	
Sign-OPT+: An Improved Sign Optimization Adversarial Attack .....	461
<i>Yu Ran, Yuan-Gen Wang</i>	
Shuffle Attention Multiple Instances Learning for Breast Cancer Whole Slide Image Classification .....	466
<i>Cunqiao Hou, Qiule Sun, Wei Wang, Jianxin Zhang</i>	
Exploring Structural Sparsity in Neural Image Compression.....	471
<i>Shanzhi Yin, Chao Li, Fanyang Meng, Wen Tan, Youneng Bao, Yongsheng Liang, Wei Liu</i>	
Learning Frequency-Specific Quantization Scaling in VVC for Standard-Compliant Task-Driven Image Coding .....	476
<i>Kristian Fischer, Fabian Brand, Christian Herglotz, André Kaup</i>	
Self-Superflow: Self-Supervised Scene Flow Prediction in Stereo Sequences .....	481
<i>Katharina Bendig, René Schuster, Didier Stricker</i>	
Font Watermarking Network for Text Images .....	486
<i>Yinan Li, Weiming Zhang, Han Fang, Xi Yang, Zehua Ma, Nenghai Yu</i>	
Deep Unfolding of Image Denoising by Quantum Interactive Patches.....	491
<i>Sayantana Dutta, Adrian Basarab, Bertrand Georgeot, Denis Kouamé</i>	
Multi-View Feature Boosting Network for Deep Subspace Clustering.....	496
<i>Jinjoo Song, Gang-Joon Yoon, Sangwon Baek, Sang Min Yoon</i>	
Two-Stream Non-Uniform Concentration Reasoning Network for Single Image Air Pollution Estimation.....	501
<i>Huilin Chen, Wenming Yang, Qingmin Liao</i>	
PPT: Anomaly Detection Dataset of Printed Products with Templates .....	506
<i>Huang Tian, Xiang Li, Lingfeng Yang, Jun Li, Jian Yang, Weidong Du</i>	
CTGAN : Cloud Transformer Generative Adversarial Network .....	511
<i>Gi-Luen Huang, Pei-Yuan Wu</i>	
Measurably Stronger Explanation Reliability Via Model Canonization.....	516
<i>Franz Motzkus, Leander Weber, Sebastian Lapuschkin</i>	
Subjective and Objective Quality Assessment of High-Motion Sports Videos at Low-Bitrates .....	521
<i>Joshua P. Ebenezer, Yixu Chen, Yongjun Wu, Hai Wei, Sriram Sethuraman</i>	
Improving Rgb-Infrared Pedestrian Detection by Reducing Cross-Modality Redundancy.....	526
<i>Qingwang Wang, Yongke Chi, Tao Shen, Jian Song, Zifeng Zhang, Yan Zhu</i>	
DRBANET: A Lightweight Dual-Resolution Network for Semantic Segmentation with Boundary Auxiliary.....	531
<i>Linjie Wang, Quan Zhou, Chenfeng Jiang, Xiaofu Wu, Longin Jan Latecki</i>	



Deep Learning Based EEG Analysis Using Video Analytics .....	536
<i>Darshil Shah, Meghna Govind, Gopika Gopan K, Neelam Sinha</i>	
Exemplar-Free Online Continual Learning .....	541
<i>Jiangpeng He, Fengqing Zhu</i>	
Query-Efficient Adversarial Attack Based on Latin Hypercube Sampling .....	546
<i>Dan Wang, Jiayu Lin, Yuan-Gen Wang</i>	
Multifractal Anomaly Detection in Images Via Space-Scale Surrogates.....	556
<i>Herwig Wendt, Lorena Leon, Jean-Yves Tournet, Patrice Abry</i>	
Comparison of Phase-Based Sub-Pixel Motion Estimation Methods .....	561
<i>Cédric Marinel, Benjamin Mathon, Olivier Losson, Ludovic Macaire</i>	
SVBR-Net: A Non-Blind Spatially Varying Defocus Blur Removal Network.....	566
<i>Ali Karaali, Cláudio Rosito Jung</i>	
Indoor Target-Driven Visual Navigation Based on Spatial Semantic Information .....	571
<i>Jiaojie Yan, Qieshi Zhang, Jun Cheng, Ziliang Ren, Tian Li, Zhuo Yang</i>	
Towards Generalizable DEEPFAKE Face Forgery Detection with Semi-Supervised Learning and Knowledge Distillation.....	576
<i>Yuzhen Lin, Han Chen, Bin Li, Junqiang Wu</i>	
A Joint Secret Image Sharing and Jpeg Compression Scheme.....	581
<i>Felix Yriarte, Pauline Puteaux, William Puech</i>	
Semi-Overcomplete Convolutional Auto-Encoder Embedding as Shape Priors for Deep Vessel Segmentation .....	586
<i>A. Sadikine, B. Badic, J.-P. Tasu, V. Noblet, D. Visvikis, P.-H. Conze</i>	
Entropy-Based Feature Extraction for Real-Time Semantic Segmentation.....	591
<i>Lusine Abrahamyan, Nikos Deligiannis</i>	
Auth-Persons: A Dataset for Detecting Humans in Crowds from Aerial Views.....	596
<i>Charalampos Symeonidis, Ioannis Mademlis, Ioannis Pitas, Nikos Nikolaidis</i>	
Parallel Attribute Computation for Distributed Component Forests .....	601
<i>Simon Gazagnes, Michael H. F. Wilkinson</i>	
Truncated Lottery Ticket for Deep Pruning.....	606
<i>Iraj Saniee, Lisa Zhang, Bradley Magnetta</i>	
A Study of Shape Modeling Against Noise .....	611
<i>Cheng Long, Adrian Barbu</i>	
Continual Learning in Vision Transformer .....	616
<i>Mana Takeda, Keiji Yanai</i>	
Eldnet: Establishment and Refinement of Edge Likelihood Distributions for Camouflaged Object Detection .....	621
<i>Chiyuan He, Linfeng Xu, Zihuan Qiu</i>	
Translated Skip Connections - Expanding the Receptive Fields of Fully Convolutional Neural Networks .....	631
<i>J. Bruton, H. Wang</i>	

Simulator Attack+ for Black-Box Adversarial Attack .....	636
<i>Yimu Ji, Jianyu Ding, Zhiyu Chen, Fei Wu, Chi Zhang, Yiming Sun, Jing Sun, Shangdong Liu</i>	
Halftoning with Multi-Agent Deep Reinforcement Learning .....	641
<i>Haitian Jiang, Dongliang Xiong, Xiaowen Jiang, Aiguo Yin, Li Ding, Kai Huang</i>	
SVG Vector Font Generation for Chinese Characters with Transformer.....	646
<i>Haruka Aoki, Kiyoharu Aizawa</i>	
3D Centroidnet: Nuclei Centroid Detection with Vector Flow Voting .....	651
<i>Liming Wu, Alain Chen, Paul Salama, Kenneth W. Dunn, Edward J. Delp</i>	
Benchmarking 3D Face De-Identification with Preserving Facial Attributes .....	656
<i>Kevin H. M. Cheng, Zitong Yu, Haoyu Chen, Guoying Zhao</i>	
Optimized Learned Entropy Coding Parameters for Practical Neural-Based Image and Video Compression.....	661
<i>Amir Said, Reza Pourreza, Hoang Le</i>	
A Similarity Distillation Guided Feature Refinement Network for Few-Shot Semantic Segmentation .....	666
<i>Shuchang Lyu, Binghao Liu, Lijiang Chen, Qi Zhao</i>	
Adding Non-Linear Context to Deep Networks .....	671
<i>Michele Covell, David Marwood, Shumeet Baluja</i>	
Partial Point Cloud Registration Via Soft Segmentation .....	681
<i>Guofeng Mei, Xiaoshui Huang, Jian Zhang, Qiang Wu</i>	
Image-Based Air Quality Forecasting Through Multi-Level Attention.....	686
<i>Tony Zhang, Robert P. Dick</i>	
SAR Image Super-Resolution Reconstruction Based on Full-Resolution Discrimination .....	691
<i>Guangyi Xiao, Long Zhang</i>	
Using Vision Transformers in 3-D Medical Image Classifications .....	696
<i>Lulu Gai, Wei Chen, Rui Gao, Yan-Wei Chen, Xu Qiao</i>	
Learned Image Compression with Multi-Scale Spatial and Contextual Information Fusion .....	706
<i>Ziyi Liu, Hanli Wang, Taiyi Su</i>	
Rethinking Unified Spectral-Spatial-Based Hyperspectral Image Classification Under 3D Configuration of Vision Transformer .....	711
<i>Weilian Zhou, Sei-Ichiro Kamata, Zhengbo Luo, Xi Xue</i>	
Query Learning of Both Thing and Stuff for Panoptic Segmentation .....	716
<i>Shilin Xu, Xiangtai Li, Yibo Yang, Hongyang Li, Guangliang Cheng, Yunhai Tong</i>	
Adaptive Multi-Scale Progressive Probability Model for Lossless Image Compression .....	721
<i>Honglei Zhang, Francesco Cricri, Nannan Zou, Hamed R. Tavakoli, Miska M. Hannuksela</i>	
A Unified Framework for Masked and Mask-Free Face Recognition Via Feature Rectification .....	726
<i>Shaozhe Hao, Chaofeng Chen, Zhenfang Chen, Kwan-Yee K. Wong</i>	
A Multi-Task Semantic Segmentation Network for Threat Detection in X-Ray Security Images .....	731
<i>Junhong Liu, Baoping Li</i>	

Maanu-Net: Multi-Level Attention and Atrous Pyramid Nested U-Net for Wrecked Objects Segmentation in Forward-Looking Sonar Images .....	736
<i>Yingshuo Liang, Xingyu Zhu, Jianlei Zhang</i>	
Distilling Facial Knowledge with Teacher-Tasks: Semantic-Segmentation-Features for Pose-Invariant Face-Recognition .....	741
<i>Ali Hassani, Zaid El Shair, Rafi Ud Duala Refat, Hafiz Malik</i>	
Soli Radar Image-Based Target Localization .....	746
<i>Wenyuan Song, William Singhose, David Frakes</i>	
FewGAN: Generating from the Joint Distribution of a Few Images .....	751
<i>Lior Ben-Moshe, Sagie Benaim, Lior Wolf</i>	
Identifying Document Images with Glare Using Global and Localized Feature Fusion .....	756
<i>Avishek Lahiri, Junjie Ke, Daniel Vlastic, Xinwei Yao, Tianli Yu, Feng Yang</i>	
Unsupervised Domain Adaptation Person Re-Identification by Camera-Aware Style Decoupling and Uncertainty Modeling .....	761
<i>Jingwen Guo, Hong Liu, Wei Shi, Hao Tang, Jianbing Wu</i>	
Joint Motion Correction and 3D Segmentation with Graph-Assisted Neural Networks for Retinal OCT .....	766
<i>Yiqian Wang, Carlo Galang, William R. Freeman, Truong Q. Nguyen, Cheolhong An</i>	
DPNET: Dual-Path Network for Efficient Object Detection with Lightweight Self-Attention .....	771
<i>Huimin Shi, Quan Zhou, Yinghao Ni, Xiaofu Wu, Longin Jan Latecki</i>	
Dynamic Selection Network for Rgb-D Salient Object Detection .....	776
<i>Jinlin Zhou, Zhiming Luo, Shaozi Li</i>	
VG-GAN: Conditional GAN Framework for Graphical Design Generation .....	781
<i>Yong Zheng Ong, Lilei Zheng, Chaowei Feng, Kang Song</i>	
Subjective Assessment of High Dynamic Range Videos Under Different Ambient Conditions .....	786
<i>Zaixi Shang, Joshua P. Ebenezer, Alan C. Bovik, Yongjun Wu, Hai Wei, Sriram Sethuraman</i>	
Hierarchical Defect Detection Based on Reinforcement Learning .....	791
<i>Fen Fang, Qianli Xu, Joo-Hwee Lim</i>	
$\Psi$ -Net is an Efficient Tiny Defect Detector .....	796
<i>Bohua Wang, Hao Zhou, Wenrui Luo, Chenyang Li, Zhoubing Li, Zhiqiang Tian</i>	
Hardware-Oriented Shallow Joint Demosaicing and Denoising .....	801
<i>Xiaodong Yang, Wengang Zhou, Houqiang Li</i>	
Superpixel Group-Correlation Network for Co-Saliency Detection .....	806
<i>Minhyeok Lee, Chaewon Park, Suhwan Cho, Sangyoun Lee</i>	
Saliency Detection Via Global Context Enhanced Feature Fusion and Edge Weighted Loss .....	811
<i>Chaewon Park, Minhyeok Lee, Myeongah Cho, Sangyoun Lee</i>	
Vectorizing Images of Any Size .....	816
<i>Yuchen He, Sung Ha Kang, Jean-Michel Morel</i>	
Enhancing Multi-View Stereo with Contrastive Matching and Weighted Focal Loss .....	821
<i>Yikang Ding, Zhenyang Li, Dihe Huang, Zhiheng Li, Kai Zhang</i>	

Deep Learning Classification of Large-Scale Point Clouds: A Case Study on Cuneiform Tablets .....	826
<i>Frederik Hagelskjær</i>	
Light Field Integral Image Coding Optimization Under 2D Hierarchical Coding Structure.....	831
<i>Yanbo Gao, Shuai Li, Ce Zhu</i>	
Semi-Supervised 3D Medical Image Segmentation Via Boundary-Aware Consistent Hidden Representation Learning.....	836
<i>Linhu Liu, Jiang Tian, Xiangqian Cheng, Zhongchao Shi, Jianping Fan, Yong Rui</i>	
A Person Re-Identification Baseline Based on Attention Block Neural Architecture Search.....	841
<i>Jia Sun, Yanfeng Li, Houjin Chen, Yahui Peng</i>	
Regional Saliency Map Attack for Medical Image Segmentation.....	846
<i>Pei Yang, Huan Wang</i>	
Investigating Inconsistencies in PRNU-Based Camera Identification .....	851
<i>Nabeel Nisar Bhat, Tiziano Bianchi</i>	
Learning from Designers: Fashion Compatibility Analysis Via Dataset Distillation .....	856
<i>Yulan Chen, Zhiyong Wu, Zheyang Shen, Jia Jia</i>	
Simultaneous Smoothing and Sharpening Using iWGIF .....	861
<i>Zhengguo Li, Jinghong Zheng, J. Senthilnath</i>	
Variational Depth Estimation on Hypersphere for Panorama.....	866
<i>Jingbo Miao, Yanwei Liu, Kan Wang, Jinxia Liu, Zhen Xu</i>	
3DCNN-Based Palpation Localization with Temporal Attention Module.....	871
<i>Guanhao Huang, Hong Lu, Xing Zhu, Jingjing Luo</i>	
Progressive Training Enabled Fine-Grained Recognition .....	876
<i>Bin Kang, Fan Wu, Xin Li, Quan Zhou</i>	
Minconvnets: A New Class of Multiplication-Less Neural Networks.....	881
<i>Xuecan Yang, Sumanta Chaudhuri, Laurence Likforman, Lirida Naviner</i>	
Iterative Seeded Region Growing for Brain Tissue Segmentation .....	886
<i>Ke Zhang, Fei Wu, Junxiao Sun, Guanyu Yang, Huazhong Shu, Youyong Kong</i>	
Real-World Video Anomaly Detection by Extracting Salient Features .....	891
<i>Yudai Watanabe, Makoto Okabe, Yasunori Harada, Naoji Kashima</i>	
Dynamic Multi-Reference Generative Prediction for Face Video Compression.....	896
<i>Zhao Wang, Bolin Chen, Yan Ye, Shiqi Wang</i>	
Multi-Field De-Interlacing Using Deformable Convolution Residual Blocks and Self-Attention.....	901
<i>Ronglei Ji, A. Murat Tekalp</i>	
A New Regularization for Retinex Decomposition of Low-Light Images .....	906
<i>Arthur Lecert, Renaud Fraisse, Aline Roumy, Christine Guillemot</i>	
Self-Supervised Frontalization and Rotation Gan with Random Swap for Pose-Invariant Face Recognition .....	911
<i>Jiashu Liao, Victor Sanchez, Tanaya Guha</i>	

On Quantization of Image Classification Neural Networks for Compression Without Retraining .....	916
<i>Marcos Tonin, Ricardo L. De Queiroz</i>	
Revisiting Spatial Inductive Bias with MLP-Like Model .....	921
<i>Akihiro Imamura, Nana Arizumi</i>	
NLCMAP: A Framework for the Efficient Mapping of Non-Linear Convolutional Neural Networks on FPGA Accelerators .....	926
<i>Giuseppe Aiello, Beatrice Bussolino, Emanuele Valpreda, Massimo Ruo Roch, Guido Masera, Maurizio Martina, Stefano Marsi</i>	
Extracting Effective Subnetworks with Gumbel-Softmax .....	931
<i>Robin Dupont, Mohammed Amine Alaoui, Hichem Sahbi, Alice Lebois</i>	
MWNET: A Tracking Method for Frequently Occluded Scenes Based on Matter Waves .....	936
<i>Cheng Xu, Ling Pei, Zhengde Zhang</i>	
Optimizing AV1 Encoder for Real-Time Communication.....	941
<i>Fyodor Kyslov, Marco Paniconi, Jerome Jiang, Yunqing Wang, Chi Yo Tsai</i>	
Conditional Reconstruction for Open-Set Semantic Segmentation.....	946
<i>Ian Nunes, Matheus B. Pereira, Hugo Oliveira, Jefersson A. Dos Santos, Marcus Poggi</i>	
Infrared and Visible Image Registration for Airborne Camera Systems.....	951
<i>Marc-Antoine Drouin, Jonathan Fournier</i>	
PASNET: A Self-AdaPtive Point Cloud Sorting APProach to an ImProved Feature Extraction.....	956
<i>Nuo Cheng, Xiaohan Li, Han Li, Xiaotong Liu, Chuanyu Luo, Shengguang Lei, Pu Li</i>	
Predicting Radiologist Attention During Mammogram Reading with Deep and Shallow High- Resolution Encoding .....	961
<i>Jianxun Lou, Hanhe Lin, David Marshall, Richard White, Young Yang, Susan Shelmerdine, Hantao Liu</i>	
Slicing Aided Hyper Inference and Fine-Tuning for Small Object Detection.....	966
<i>Fatih Cagatay Akyon, Sinan Onur Altinuc, Alptekin Temizel</i>	
Channel-Position Self-Attention with Query Refinement Skeleton Graph Neural Network in Human Pose Estimation .....	971
<i>Shek Wai Chu, Chaoyi Zhang, Yang Song, Weidong Cai</i>	
Self-Supervised Class-Cognizant Few-Shot Classification .....	976
<i>Ojas Kishore Shirekar, Hadi Jamali-Rad</i>	
Balanced Affinity Loss for Highly Imbalanced Baggage Threat Contour-Driven Instance Segmentation .....	981
<i>Abdelfatah Ahmed, Ahmad Obeid, Divya Velayudhan, Taimur Hassan, Ernesto Damiani, Naoufel Werghi</i>	
RPFNET: Complementary Feature Fusion for Hand Gesture Recognition.....	986
<i>Do Yeon Kim, Dae Ha Kim, Byung Cheol Song</i>	
Improving Generalization of Reinforcement Learning Using a Bilinear Policy Network.....	991
<i>Fen Fang, Wenyu Liang, Yan Wu, Qianli Xu, Joo-Hwee Lim</i>	
Efficient Scalable 360-Degree Video Compression Scheme Using 3D Cuboid Partitioning .....	996
<i>Fariha Afsana, Manoranjan Paul, Manzur Murshed, David Taubman</i>	

Skip-MLP Network for Point Cloud Classification.....	1001
<i>Zhichao Wang, Qi Peng, Jie Li</i>	
Towards Lightweight Neural Network-Based Chroma Intra Prediction for Video Coding .....	1006
<i>Chengyi Zou, Shuai Wan, Marta Mrak, Marc Gorriz Blanch, Luis Herranz, Tiannan Ji</i>	
Two-Step Color-Polarization Demosaicking Network .....	1011
<i>Vy Nguyen, Masayuki Tanaka, Yusuke Monno, Masatoshi Okutomi</i>	
Identity-Sensitive Knowledge Propagation for Cloth-Changing Person Re-Identification .....	1016
<i>Jianbing Wu, Hong Liu, Wei Shi, Hao Tang, Jingwen Guo</i>	
Reduced Dependency Fast Unsupervised 3D Face Reconstruction .....	1021
<i>Hitika Tiwari, Venkatesh K. Subramanian</i>	
Mixed Membership Generative Adversarial Networks .....	1026
<i>Yasin Yazici, Bruno Lecouat, Kim Hui Yap, Stefan Winkler, Georgios Piliouras, Vijay Chandrasekhar, Chuan-Sheng Foo</i>	
Rethinking Efficacy of Softmax for Lightweight Non-Local Neural Networks.....	1031
<i>Yooshin Cho, Youngsoo Kim, Hanbyel Cho, Jaesung Ahn, Hyeong Gwon Hong, Junmo Kim</i>	
3D Human Motion Generation from the Text Via Gesture Action Classification and the Autoregressive Model .....	1036
<i>Gwantaek Kim, Youngsuk Ryu, Junyeop Lee, David K. Han, Jeongmin Bae, Hanseok Ko</i>	
Learnable Pixel Clustering Via Structure and Semantic Dual Constraints for Unsupervised Image Segmentation .....	1041
<i>Bo Wang, Shiang Wang, Chunfeng Yuan, Zhonghai Wu, Bing Li, Weiming Hu, Jeffrey Xiong</i>	
Assessment of Image Manipulation Using Natural Language Description: Quantification of Manipulation Direction .....	1046
<i>Yuto Watanabe, Ren Togo, Keisuke Maeda, Takahiro Ogawa, Miki Haseyama</i>	
A Novel Visual Feature and Gaze Driven Egocentric Video Retargeting.....	1051
<i>Aneesh Bhattacharya, Sai Phani Kumar Malladi, Jayanta Mukhopadhyay</i>	
Few-Shot Learning Network for Moving Object Detection Using Exemplar-Based Attention Map .....	1056
<i>Islam Osman, Mohamed S. Shehata</i>	
Adaptive Radial Projection on Fourier Magnitude Spectrum for Document Image Skew Estimation.....	1061
<i>Luan Pham, Phu Hao Hoang, Xuan Toan Mai, Tuan Anh Tran</i>	
Emcenet: Efficient Multi-Scale Context Exploration Network for Salient Object Detection.....	1066
<i>Yanguang Sun, Chenxing Xia, Xiuju Gao, Bin Ge, Hanling Zhang, Kuan-Ching Li</i>	
Which Metrics for Network Pruning: Final Accuracy? Or Accuracy Drop? .....	1071
<i>Donggyu Joo, Sunghyun Baek, Junmo Kim</i>	
Multi-Modality Diversity Fusion Network with Swintransformer for RGB-D Salient Object Detection .....	1076
<i>Songsong Duan, Chenxing Xia, Xiuju Gao, Bin Ge, Hanling Zhang, Kuan-Ching Li</i>	
Deep Ensemble Learning Model Based on Covariance Pooling of Multi-Layer CNN Features.....	1081
<i>Sara Akodad, Lionel Bombrun, Maria Puscasu, Junshi Xia, Christian Germain, Yannick Berthoumieu</i>	

Autoly: Automatic Lecture Video Generator .....	1086
<i>Wenbin Wang, Yang Song, Sanjay Jha</i>	
Transformer Visual Tracker Based on Template Features Corresponding to Foreground Region.....	1091
<i>Jianglei Yu, Xin Ma</i>	
Visual Tempo Contrastive Learning for Few-Shot Action Recognition .....	1096
<i>Guangge Wang, Weirong Ye, Xiao Wang, Rongrong Jin, Hanzi Wang</i>	
Joint Motion-Correction and Reconstruction in Cryo-Em Tomography .....	1101
<i>Yuanhao Wang, Ramzi Idoughi, Wolfgang Heidrich</i>	
BGSNet: Bidirectional-Guided Semi-3D Network for Prediction of Hematoma Expansion.....	1106
<i>Qin Wan, Zhuo Kuang, Xianbo Deng, Li Yu</i>	
3DCT Reconstruction from a Single X-Ray Projection Using Convolutional Neural Network.....	1111
<i>Estelle Loyen, Damien Dasnoy-Sumell, Benoît Macq</i>	
Guided Sampling Based Feature Aggregation for Video Object Detection.....	1116
<i>Jun Liang, Haosheng Chen, Yan Yan, Yang Lu, Hanzi Wang</i>	
Convex Quadratic Programming for Slimming Convolutional Networks.....	1121
<i>Julien Mille</i>	
Prior Semantic Harmonization Network for Few-Shot Semantic Segmentation.....	1126
<i>Xinhao Yang, Liyan Ma, Yang Zhou, Yan Peng, Shaorong Xie</i>	
MLS-GAN: Multi-Level Semantic Guided Image Colorization .....	1131
<i>Xinning Chai, Xibei Liu, Hengsheng Zhang, Han Wang, Li Song, Liean Cao</i>	
ActiveMatch: End-To-End Semi-Supervised Active Representation Learning.....	1136
<i>Xinkai Yuan, Zilinghan Li, Gaoang Wang</i>	
DIFAI: Diverse Facial Inpainting Using StyleGAN Inversion.....	1141
<i>Dongsik Yoon, Jeong-Gi Kwak, Yuanming Li, David Han, Hanseok Ko</i>	
Reference Guided Reflection Removal Using Deep Visual Attribute Cues .....	1146
<i>B H Pawan Prasad, Green Rosh K S, Lokesh R B, Kaushik Mitra</i>	
Graph Filter-Based Fast Motion Matching for Inter Frame Coding of MPEG G-PCC .....	1151
<i>Tian Guo, Hui Yuan, Tingting Wang, Wei Gao</i>	
Document Layout Analysis Via Positional Encoding .....	1156
<i>Ejian Zhou, Xingjiao Wu, Luwei Xiao, Xiangcheng Du, Tianlong Ma, Liang He</i>	
Faketracer: Exposing Deepfakes with Training Data Contamination.....	1161
<i>Pu Sun, Yuezun Li, Honggang Qi, Siwei Lyu</i>	
MVMO: A Multi-Object Dataset for Wide Baseline Multi-View Semantic Segmentation .....	1166
<i>Aitor Alvarez-Gila, Joost Van De Weijer, Yaxing Wang, Estibaliz Garrote</i>	
Interactive Image Segmentation with Transformers.....	1171
<i>Boris Faizov, Vlad Shakhuro, Anton Konushin</i>	
Efficient Self-Calibrated Convolution for Real-Time Image Super-Resolution.....	1176
<i>Adnan Hamida, Motaz Alfarraj, Salam A. Zummo</i>	

A Structure from Motion Pipeline for Orthographic Multi-View Images.....	1181
<i>Kai A. Neumann, Philipp P. Hoffmann, Max Von Buelow, Volker Knauthe, Tristan Wirth, Christian Kontermann, Arjan Kuijper, Stefan Guthe, Dieter W. Fellner</i>	
Distilling DETR-Like Detectors with Instance-Aware Feature .....	1186
<i>Honglie Wang, Jian Xu, Shouqian Sun</i>	
Image Compression Based on Importance Using Optimal Mass Transportation Map .....	1191
<i>Zihang Li, Dongsheng An, Yingjie Feng, Xianfeng Gu, Xiaoyin Xu, Min Zhang</i>	
Future Frame Extrapolation Using Future Cost Volume .....	1196
<i>Seunggyun Woo, Junheum Park, Chang-Su Kim</i>	
Flexible-Rate Learned Hierarchical Bi-Directional Video Compression with Motion Refinement and Frame-Level Bit Allocation .....	1206
<i>Eren Çetin, M. Akin Yilmaz, A. Murat Tekalp</i>	
Face Reconstruction from Deep Facial Embeddings Using a Convolutional Neural Network .....	1211
<i>Hatef Otroschi Shahreza, Vedrana Krivokuca Hahn, Sébastien Marcel</i>	
Deep Feature Compression Using Rate-Distortion Optimization Guided Autoencoder.....	1216
<i>Meguru Yamazaki, Yuichiro Kora, Takanori Nakao, Xuying Lei, Kaoru Yokoo</i>	
Building Inspection Toolkit: Unified Evaluation and Strong Baselines for Bridge Damage Recognition .....	1221
<i>Johannes Flotzinger, Philipp J. Rösch, Norbert Oswald, Thomas Braml</i>	
Polygon-Free: Unconstrained Scene Text Detection with Box Annotations .....	1226
<i>Weijia Wu, Enze Xie, Ruimao Zhang, Wenhai Wang, Ping Luo, Hong Zhou</i>	
Spatio-Temporal Attention Graph for Monocular 3d Human Pose Estimation .....	1231
<i>Lijun Zhang, Xiaohu Shao, Zhenghao Li, Xiang-Dong Zhou, Yu Shi</i>	
Multi-Scale Raft: Combining Hierarchical Concepts for Learning-Based Optical Flow Estimation.....	1236
<i>Azin Jahedi, Lukas Mehl, Marc Rivinius, Andrés Bruhn</i>	
OMNET: Real-Time Stereo Matching with Unsupervised Occlusion Mask .....	1241
<i>WeiQi Wang, Shuiqiang Ye, Xinan Wang, Yong Zhao</i>	
Dispense Mode for Inference to Accelerate Branchynet .....	1246
<i>Zhiwei Liang, Yuezhi Zhou</i>	
An Ensemble of Proximal Networks for Sparse Coding .....	1251
<i>Kartheek K Reddy Nareddy, Swapnil Mache, Praveen Kumar Pokala, Chandra Sekhar Seelamantula</i>	
DARTS-PD: Differentiable Architecture Search with Path-Wise Weight Sharing Derivation.....	1256
<i>He Cai, Zhaokai Zhang, Tianpeng Feng, Yandong Guo</i>	
Humans Disagree with the IoU for Measuring Object Detector Localization Error .....	1261
<i>Ombretta Strafforello, Vanathi Rajasekart, Osman S. Kayhan, Oana Inel, Jan Van Gemert</i>	
P-Frame Coding with Generalized Difference: A Novel Conditional Coding Approach .....	1266
<i>Fabian Brand, Jürgen Seiler, André Kaup</i>	
Merged U-Net for Bone Tumors X-Ray Images Segmentation.....	1276
<i>Zhaozhi Xie, Keyang Zhao, Xu Yan, Shenghui Wu, Jiong Mei, Hongtao Lu</i>	



Predicting Human Perception of Scene Complexity .....	1281
<i>Cameron Kyle-Davidson, Adrian G. Bors, Karla K. Evans</i>	
3D Objects Reconstruction Using Frontal Images: an Example with Guitars.....	1291
<i>Jaime Gallego, Alejandro Beacco, Mel Slater</i>	
Authentication of Copy Detection Patterns Under Machine Learning Attacks: A Supervised Approach .....	1296
<i>B. Pulfer, R. Chaban, Y. Belousov, J. Tutt, O. Taran, T. Holotyak, S. Voloshynovskiy</i>	
Deep Learning Meets Radiomics for End-To-End Brain Tumor MRI Analysis.....	1301
<i>Wojciech Ponikiewski, Jakub Nalepa</i>	
Hidden Conditional Adversarial Attacks .....	1306
<i>Junyoung Byun, Kyujin Shim, Hyojun Go, Changick Kim</i>	
Two Distillation Perspectives Based on Tanimoto Coefficient.....	1311
<i>Hongqiao Shu</i>	
SFPN: Synthetic FPN for Object Detection .....	1316
<i>Yu-Ming Zhang, Jun-Wei Hsieh, Chun-Chieh Lee, Kuo-Chin Fan</i>	
Learned Video Compression with Residual Prediction and Feature-Aided Loop Filter.....	1321
<i>Chao Liu, Heming Sun, Xiaoyang Zeng, Yibo Fan</i>	
Accurate Head Pose Estimation Based on Multi-Stage Regression .....	1326
<i>Yinchuan Liu, Yufei Gong, Zheng Lu, Xuetao Zhang</i>	
Exploiting Doubly Adversarial Examples for Improving Adversarial Robustness .....	1331
<i>Junyoung Byun, Hyojun Go, Seungju Cho, Changick Kim</i>	
Pure Versus Hybrid Transformers for Multi-Modal Brain Tumor Segmentation: A Comparative Study.....	1336
<i>G. Andrade-Miranda, V. Jaouen, V. Bourbonne, F. Lucia, D. Visvikis, P.-H. Conze</i>	
Joint Disentanglement of Labels and Their Features with VAE .....	1341
<i>Kaifeng Zou, Sylvain Faisan, Fabrice Heitz, Sébastien Valette</i>	
Learning Contextually Fused Audio-Visual Representations for Audio-Visual Speech Recognition .....	1346
<i>Zi-Qiang Zhang, Jie Zhang, Jian-Shu Zhang, Ming-Hui Wu, Xin Fang, Li-Rong Dai</i>	
Boosting Supervised Learning in Small Data Regimes with Conditional GAN Augmentation .....	1351
<i>Tetsuya Ishikawa, Simon Stent</i>	
SAVE: Spatial-Attention Visual Exploration.....	1356
<i>Xinyi Yang, Chao Yu, Jiaxuan Gao, Yu Wang, Huazhong Yang</i>	
A Subjective Quality Study for Video Frame Interpolation.....	1361
<i>Duolikun Danier, Fan Zhang, David Bull</i>	
Learning Selective Assignment Network for Scene-Aware Vehicle Detection .....	1366
<i>Zhenting Wang, Wei Li, Xiao Wu, Luhan Sheng</i>	
A Novel Rank Correlation Measure for Manifold Learning on Image Retrieval and Person Re-ID.....	1371
<i>Lucas Pascotti Valem, Vinicius Atsushi Sato Kawai, Vanessa Helena Pereira-Ferrero, Daniel Carlos Guimarães Pedronette</i>	

Moving Object Detection in Noisy Video Sequences Using Deep Convolutional Disentangled Representations .....	1376
<i>Jorge García-González, Rafael M. Luque-Baena, Juan M. Ortiz-De-Lazcano-Lobato, Ezequiel López-Rubio</i>	
Exploring the Solution Space of Linear Inverse Problems with GAN Latent Geometry .....	1381
<i>Antonio Montanaro, Diego Valsesia, Enrico Magli</i>	
UCF-CAP, Video Captioning in the Wild.....	1386
<i>Christos Chatzikonstantinou, Georgios Grigorios Valasidis, Konstantinos Stavridis, Georgios Malogiannis, Apostolos Axenopoulos, Petros Daras</i>	
Learning from Noisy Labels Via Meta Credible Label Elicitation .....	1391
<i>Ziyang Gao, Yaping Yan, Xin Geng</i>	
Enhancing Deformable Convolution Based Video Frame Interpolation with Coarse-To-Fine 3d Cnn.....	1396
<i>Duolikun Danier, Fan Zhang, David Bull</i>	
Machine Learning Based Efficient Qt-Mtt Partitioning for VVC Inter Coding .....	1401
<i>A. Tissier, W. Hamidouche, J. Vanne, D. Menard</i>	
Video Signal-Dependent Noise Estimation Via Inter-Frame Prediction.....	1406
<i>Yanhao Li, Marina Gardella, Quentin Bammey, Tina Nikoukhah, Rafael Grompone Von Gioi, Miguel Colom, Jean-Michel Morel</i>	
SWIS: Self-Supervised Representation Learning for Writer Independent Offline Signature Verification .....	1411
<i>Siladitya Manna, Soumitri Chattopadhyay, Saumik Bhattacharya, Umapada Pal</i>	
Self-Supervised Learning for Texture Classification Using Limited Labeled Data .....	1416
<i>Sahana M. Prabhu, Jitendra Y. Katta, Amit A. Kale</i>	
Adversarial Pairwise Reverse Attention for Camera Performance Imbalance in Person Re-Identification: New Dataset and Metrics .....	1421
<i>Eugene P. W. Ang, Shan Lin, Rahul Ahuja, Nemath Ahmed, Alex C. Kot</i>	
ACT-NET: Asymmetric Co-Teacher Network for Semi-Supervised Memory-Efficient Medical Image Segmentation .....	1426
<i>Ziyuan Zhao, Andong Zhu, Zeng Zeng, Bharadwaj Veeravalli, Cuntai Guan</i>	
A Framework for Contrast Enhancement Algorithms Optimization .....	1431
<i>Simone Zini, Marco Buzzelli, Simone Bianco, Raimondo Schettini</i>	
Domain Adaptation for Unknown Image Distortions in Instance Segmentation.....	1436
<i>Maximiliane Gruber, Fabian Brand, Alina Mosebach, Jürgen Seiler, André Kaup</i>	
An Efficient Framework for Human Action Recognition Based on Graph Convolutional Networks.....	1441
<i>Nikolaos Kilis, Christos Papaioannidis, Ioannis Mademlis, Ioannis Pitas</i>	
Optimal Transport with a New Preprocessing for Deep-Learning Full Waveform Inversion .....	1446
<i>Hao Zhang, Jianwei Ma</i>	
DEKRV2: More Accurate or Fast than DEKR .....	1451
<i>Wentao Chao, Fuqing Duan, Peng Du, Wanning Zhu, Tianyuan Jia, Deqi Li</i>	

Real- And Complex-Valued Neural Networks for SAR Image Segmentation Through Different Polarimetric Representations .....	1456
<i>J. A. Barrachina, C. Ren, G. Vieillard, C. Morisseau, J.-P. Ovarlez</i>	
3D Residual Interpolation for Spike Camera Demosaicing.....	1461
<i>Yanchen Dong, Jing Zhao, Ruiqin Xiong, Tiejun Huang</i>	
When is the Cleaning of Subjective Data Relevant to Train UGC Video Quality Metrics? .....	1466
<i>Anne-Flore Perrin, Charles Dormeval, Yilin Wang, Neil Birkbeck, Balu Adsumilli, Patrick Le Callet</i>	
Revisiting Natural Scene Statistical Modeling Using Deep Features for Opinion-Unaware Image Quality Assessment .....	1471
<i>Saeed Mahmoudpour, Peter Schelkens</i>	
CCL: Class-Wise Curriculum Learning for Class Imbalance Problems.....	1476
<i>Marcos Escudero-Viñolo, Alejandro López-Cifuentes</i>	
On Monocular Depth Estimation and Uncertainty Quantification Using Classification Approaches for Regression.....	1481
<i>Xuanlong Yu, Gianni Franchi, Emanuel Aldea</i>	
ATCA: An ARC Trajectory Based Model with Curvature Attention for Video Frame Interpolation .....	1486
<i>Jinfeng Liu, Lingtong Kong, Jie Yang</i>	
Bounding Box Disparity: 3D Metrics for Object Detection with Full Degree of Freedom.....	1491
<i>Michael G. Adam, Martin Piccolrovazzi, Sebastian Eger, Eckehard Steinbach</i>	
Tuning Neural ODE Networks to Increase Adversarial Robustness in Image Forensics .....	1496
<i>Roberto Caldelli, Fabio Carrara, Fabrizio Falchi</i>	
Parallel Partitioning: Path Reducing and Union–Find Based Watershed for the GPU .....	1501
<i>Yeva Gabrielyan, Varduhi Yeghiazaryan, Irina Voiculescu</i>	
Frame-Type Sensitive RDO Control for Content-Adaptive Encoding .....	1506
<i>Vibhoothi, François Pitié, Anil Kokaram</i>	
Frequency-Selective Geometry Upsampling of Point Clouds .....	1511
<i>Viktoria Heimann, Andreas Spruck, André Kaup</i>	
ETPS: Efficient Two-Pass Encoding Scheme for Adaptive Live Streaming .....	1516
<i>Vignesh V Menon, Hadi Amirpour, Mohammad Ghanbari, Christian Timmerer</i>	
A New Video Quality Assessment Dataset for Video Surveillance Applications .....	1521
<i>Azeddine Beghdadi, Muhammad Ali Qureshi, Borhen-Eddine Dakkar, Hammad Hassan Gillani, Zohaib Amjad Khan, Mounir Kaaniche, Mohib Ullah, Faouzi Alaya Cheikh</i>	
Aggregated Context Network for Semantic Segmentation of Aerial Images .....	1526
<i>Avinash Chouhan, Arijit Sur, Dibyajyoti Chutia</i>	
Explainable AI (XAI) in Biomedical Signal and Image Processing: Promises and Challenges.....	1531
<i>Guang Yang, Arvind Rao, Christine Fernandez-Maloigne, Vince Calhoun, Gloria Menegaz</i>	
Optimized Decoding-Energy-Aware Encoding in Practical VVC Implementations .....	1536
<i>Matthias Kränzler, Adam Wieckowski, Geetha Ramasubbu, Benjamin Bross, André Kaup, Detlev Marpe, Christian Herglotz</i>	

Bag-Of-Features-Based Knowledge Distillation for Lightweight Convolutional Neural Networks .....	1541
<i>Alexandros Chariton, Nikolaos Passalis, Anastasios Tefas</i>	
Background-Tolerant Object Classification with Embedded Segmentation Mask for Infrared and Color Imagery.....	1546
<i>Maliha Arif, Calvin Yong, Abhijit Mahalanobis, Nazanin Rahnavard</i>	
ConMW Transformer: A General Vision Transformer Backbone with Merged-Window Attention.....	1551
<i>Ang Li, Jichao Jiao, Ning Li, Wangjing Qi, Wei Xu, Min Pang</i>	
Affine Transformation-Based Color Compression for Dynamic 3D Point Clouds .....	1556
<i>Chao Cao, Marius Preda, Titus Zaharia</i>	
Maximum Likelihood Surface Profilometry Via Optical Coherence Tomography .....	1561
<i>J. Rapp, H. Mansour, P. Boufounos, P. Orlik, T. Koike-Akino, K. Parsons</i>	
CNN-Based Local Tone Mapping in the Perceptual Quantization Domain .....	1566
<i>Hongjie You, Hu Chen, Yichuan Wang, Kai Cui, Eckehard Steinbach</i>	
Fast Sky to Sky Interpolation for Radio Interferometric Imaging .....	1571
<i>Nicolas Monnier, François Orieux, Nicolas Gac, Cyril Tasse, Erwan Raffin, David Guibert</i>	
Using Deep Learning to Improve Detection and Decoding of Barcodes .....	1576
<i>Chaoxin Wang, Nicolais Guevara, Doina Caragea</i>	
Analysis of Video Quality Induced Spatio-Temporal Saliency Shifts .....	1581
<i>Xinbo Wu, Zhengyan Dong, Fan Zhang, Paul L. Rosin, Hantao Liu</i>	
Biologically Plausible Illusionary Contrast Perception with Spiking Neural Networks .....	1586
<i>Hadar Cohen-Duwek, Elishai Ezra Tsur</i>	
IMC-NET: Learning Implicit Field with Corner Attention Network for 3D Shape Reconstruction .....	1591
<i>Jiongchao Jin, Huanqiang Xu, Pengliang Ji, Biao Leng</i>	
PCRP: Unsupervised Point Cloud Object Retrieval and Pose Estimation.....	1596
<i>Pranav Kadam, Qingyang Zhou, Shan Liu, C.-C. Jay Kuo</i>	
MSL-FER: Mirrored Self-Supervised Learning for Facial Expression Recognition.....	1601
<i>Xiangshuai Pan, Weifeng Liu, Yanjiang Wang, Xiaoping Lu, Baodi Liu</i>	
A Neural Network Lifting Based Secondary Transform for Improved Fully Scalable Image Compression in Jpeg 2000.....	1606
<i>Xinyue Li, Aous Naman, David Taubman</i>	
Deep Active Learning for Cryo-Electron Tomography Classification .....	1611
<i>Tianyang Wang, Bo Li, Jing Zhang, Xiangrui Zeng, Mostofa Rafid Uddin, Wei Wu, Min Xu</i>	
Nondeterministic Deformation Analysis Using Quasiconformal Geometry .....	1616
<i>Han Zhang, Lok Ming Lui</i>	
DTT-Net: Dual-Domain Translation Transformer for Semi-Supervised Image Deraining.....	1621
<i>Ze-Bin Chen, Yuan-Gen Wang</i>	
Mask-Vit: An Object Mask Embedding in Vision Transformer for Fine-Grained Visual Classification .....	1626
<i>Tong Su, Shuo Ye, Chengqun Song, Jun Cheng</i>	

Higher-Order Recurrent Network with Space-Time Attention for Video Early Action Recognition .....	1631
<i>Tsung-Ming Tai, Giuseppe Fiamenì, Cheng-Kuang Lee, Oswald Lanz</i>	
Unsupervised Domain-Adaptive Person Re-Identification with Multi-Camera Constraints.....	1636
<i>Shun Takeuchi, Fei Li, Sho Iwasaki, Jiaqi Ning, Genta Suzuki</i>	
Class-Wise FM-NMS for Knowledge Distillation of Object Detection .....	1641
<i>Lyuzhuang Liu, Tsubasa Hirakawa, Takayoshi Yamashita, Hironobu Fujiyoshi</i>	
Adaptive Detail Injection-Based Feature Pyramid Network for Pan-Sharpning .....	1646
<i>Yi Sun, Yuanlin Zhang, Yuan Yuan</i>	
A Multi-Source Image Matching Network for UAV Visual Location .....	1651
<i>Chao Li, Ganchao Liu, Yuan Yuan</i>	
Document Shadow Removal with Foreground Detection Learning from Fully Synthetic Images .....	1656
<i>Yuhi Matsuo, Naofumi Akimoto, Yoshimitsu Aoki</i>	
Multi-View 3D Reconstruction from Video with Transformer.....	1661
<i>Yijie Zhong, Zhengxing Sun, Yunhan Sun, Shoutong Luo, Yi Wang, Wei Zhang</i>	
Dose-Blind Denoising with Deep Learning in Cardiac Spect .....	1666
<i>Junchi Liu, Yongyi Yang, Miles N. Wernick, P. Hendrik Pretorius, Michael A. King</i>	
Scene Representation Learning from Videos Using Self-Supervised and Weakly-Supervised Techniques.....	1671
<i>Raghuvèer Peri, Srinivas Parthasarathy, Shiva Sundaram</i>	
Non-Iterative Optimization of Pseudo-Labeling Thresholds for Training Object Detection Models from Multiple Datasets .....	1676
<i>Yuki Tanaka, Shuhei M. Yoshida, Makoto Terao</i>	
Reference-Based Jpeg Image Artifacts Removal.....	1681
<i>Weigang Song, Jiahuan Ji, Baojiang Zhong</i>	
Anisotropic Edge Detection in Catadioptric Images .....	1686
<i>Enzhuang Zheng, Baojiang Zhong, Kai-Kuang Ma</i>	
Boundary-Area Enhanced Module for Instance Segmentation .....	1691
<i>Yunlong Hu, Chongyang Zhang, Hao Zhou, Zefeng Qian, Weiji Zhao</i>	
A Coarse-To-Fine Morphological Approach with Knowledge-Based Rules and Self-Adapting Correction for Lung Nodules Segmentation.....	1696
<i>Xinliang Fu, Jiayin Zheng, Juanyun Mai, Yanbo Shao, Minghao Wang, Linyu Li, Zhaoqi Diao, Yulong Chen, Jianyu Xiao, Jian You, Airu Yin, Yang Yang, Xiangcheng Qiu, Jinsheng Tao, Bo Wang, Hua Ji</i>	
MCFM: Mutual Cross Fusion Module for Intermediate Fusion-Based Action Segmentation .....	1701
<i>Kenta Ishihara, Gaku Nakano, Tetsuo Inoshita</i>	
Anomalib: A Deep Learning Library for Anomaly Detection .....	1706
<i>Samet Akcay, Dick Ameln, Ashwin Vaidya, Barath Lakshmanan, Nilesh Ahuja, Utku Genc</i>	
Intra-Inter Prediction for Versatile Video Coding Using a Residual Convolutional Neural Network .....	1711
<i>Philipp Merkle, Martin Winken, Jonathan Pfaff, Heiko Schwarz, Detlev Marpe, Thomas Wiegand</i>	

Ventriloquist-Net: Leveraging Speech Cues for Emotive Talking Head Generation.....	1716
<i>Deepan Das, Qadeer Khan, Daniel Cremers</i>	
Prototype Queue Learning for Multi-Class Few-Shot Semantic Segmentation .....	1721
<i>Zichao Wang, Zhiyu Jiang, Yuan Yuan</i>	
Transformation-Based Adversarial Defense Via Sparse Representation .....	1726
<i>Bingyi Lu, Jiyuan Liu, Huilin Xiong</i>	
Mouse Arterial Wall Imaging and Analysis from Synchrotron X-Ray Microtomography .....	1731
<i>Xiaowen Liang, Aicha Ben Zenzem, Sébastien Almagro, Jean-Charles Boisson, Luiz-Angelo Steffanel, Timm Weitkamp, Laurent Debelle, Nicolas Passat</i>	
A Bregman Majorization-Minimization Framework for Pet Image Reconstruction .....	1736
<i>Claire Rossignol, Florent Sureau, Emilie Chouzenoux, Claude Comtat, Jean-Christophe Pesquet</i>	
Infrared and Visible Image Fusion Using Bimodal Transformers .....	1741
<i>Seonghyun Park, An Gia Vien, Chul Lee</i>	
Convolutional Sparse Coding with Weighted L1 Norm for Phase Retrieval: Algorithm and Its Deep Unfolded Network.....	1746
<i>Baoshun Shi, Yating Gao, Ke Jiang, Qiusheng Lian</i>	
Spatio-Temporal Parallelization Scheme for HEVC Encoding on Multi-Computer Systems .....	1756
<i>Alexandre Mercat, Sami Ahovainio, Jarno Vanne</i>	
Predicting the Colors of Reference Surfaces for Color Constancy.....	1761
<i>Dubuisson I, Muselet D, Basso-Bert Y, Trémeau A, Laganière R</i>	
Deep Learning of Radiometrical and Geometrical Sar Distorsions for Image Modality Translations .....	1766
<i>Antoine Bralet, Abdourrahmane M. Atto, Jocelyn Chanussot, Emmanuel Trouvé</i>	
Efficient One-Shot Sports Field Image Registration with Arbitrary Keypoint Segmentation .....	1771
<i>Nicolas Jacquelin, Romain Vuillemot, Stefan Duffner</i>	
Deep Neural Network-Based Noisy Pixel Estimation for Breast Ultrasound Segmentation.....	1776
<i>Songbai Jin, Wenkai Lu, Patrice Monkam</i>	
Adaptive Proxy Anchor Loss for Deep Metric Learning.....	1781
<i>Nguyen Phan, Sen Tran, Ta Duc Huy, Soan T. M. Duong, Chanh D. Tr. Nguyen, Trung Bui, Steven Q. H. Truong</i>	
An Efficient End-To-End Image Compression Transformer .....	1786
<i>Afsana Ahsan Jeny, Masum Shah Junayed, Md Baharul Islam</i>	
Boosting the Performance of Weakly-Supervised 3d Human Pose Estimators with Pose Prior Regularizers.....	1791
<i>Lawrence Amadi, Gady Agam</i>	
Exploring Active Learning for Semiconductor Defect Segmentation .....	1796
<i>Lile Cai, Ramanpreet Singh Pahwa, Xun Xu, Jie Wang, Richard Chang, Lining Zhang, Chuan-Sheng Foo</i>	
A Lightweight Network with Multi-Stage Feature Fusion Module for Single-View 3d Face Reconstruction.....	1801
<i>Jing Wang, Shikun Zhang, Fengyi Song, Ge Song, Ming Yang</i>	

Multi Label Image Classification Using Adaptive Graph Convolutional Networks (ML-AGCN) .....	1806
<i>Inder Pal Singh, Enjie Ghorbel, Oyebade Oyedotun, Djamila Aouada</i>	
SCINet: Semantic Cue Infusion Network for Lane Detection.....	1811
<i>Hao Yang, Shuyuan Lin, Lin Cheng, Yang Lu, Hanzi Wang</i>	
Enhancing Part Features Via Contrastive Attention Module for Vehicle Re-Identification.....	1816
<i>Manyu Li, Mengwan Wei, Xin He, Fei Shen</i>	
Exploring Occlusion-Sensitive Deep Network for Single-View 3D Face Reconstruction .....	1821
<i>Jing Wang, Shikun Zhang, Fengyi Song, Ge Song, Ming Yang</i>	
SeqDNet: Improving Missing Value by Sequential Depth Network .....	1826
<i>Hao Hsu, Hung-Ting Su, Jia-Fong Yeh, Chi-Ming Chung, Winston H. Hsu</i>	
AEBSR: Active-Sampling and Energy-Based Single Image Super-Resolution .....	1831
<i>Biao Jiang, Kun Long, Yu-Bin Yang</i>	
Adaptive Loop Filter with a CNN-Based Classification .....	1836
<i>Wang-Q Lim, Jonathan Pfaff, Björn Stallenberger, Johannes Erfurt, Heiko Schwarz, Detlev Marpe, Thomas Wiegand</i>	
Encoder Enabled Gan-Based Video Generators .....	1841
<i>Jingbo Yang, Adrian G. Bors</i>	
MCGNet: Multi-Level Context-Aware and Geometric-Aware Network for 3D Object Detection .....	1846
<i>Keng Chen, Feng Zhou, Ju Dai, Pei Shen, Xingquan Cai, Fengquan Zhang</i>	
Accelerating a Morphology-Preserving Adsorption Model by Deep Learning .....	1851
<i>Adam Hammoumi, Maxime Moreaud, Elsa Jolimaître, Thibaud Chevalier, Michaela Klotz, Alexey Novikov</i>	
Relation-Guided Network for Image-Text Retrieval .....	1856
<i>Yulou Yang, Hao Shen, Ming Yang</i>	
CSTNET: Enhancing Global-To-Local Interactions for Image Captioning .....	1861
<i>Xin Yang, Ying Wang, Haishun Chen, Jie Li</i>	
Clustering-Based Psychometric No-Reference Quality Model for Point Cloud Video .....	1866
<i>Sam Van Damme, Maria Torres Vega, Jeroen Van Der Hoof, Filip De Turck</i>	
Modular and Lightweight Networks for Bi-Scale Style Transfer .....	1871
<i>Thibault Durand, Julien Rabin, David Tschumperlé</i>	
Fully Convolutional and Feedforward Networks for the Semantic Segmentation of Remotely Sensed Images .....	1876
<i>Martina Pastorino, Gabriele Moser, Sebastiano B. Serpico, Josiane Zerubia</i>	
Identity-Guided Face Generation with Multi-Modal Contour Conditions .....	1881
<i>Qingyan Bai, Weihao Xia, Fei Yin, Yujiu Yang</i>	
Boundary Corrected Multi-Scale Fusion Network for Real-Time Semantic Segmentation .....	1886
<i>Tianjiao Jiang, Yi Jin, Tengfei Liang, Xu Wang, Yidong Li</i>	
Fast Vehicle Detection and Tracking on Fisheye Traffic Monitoring Video Using CNN and Bounding Box Propagation .....	1891
<i>Sandy Ardianto, Hsueh-Ming Hang, Wen-Huang Cheng</i>	

Contrastive Learning for Online Semi-Supervised General Continual Learning .....	1896
<i>Nicolas Michel, Romain Negrel, Giovanni Chierchia, Jean-François Bercher</i>	
Approximating Relu Networks by Single-Spike Computation .....	1901
<i>Ana Stanojevic, Evangelos Eleftheriou, Giovanni Cherubini, Stanislaw Wozniak, Angeliki Pantazi, Wulfram Gerstner</i>	
A Study of Deep Learning Networks for Motion Compensation in Cardiac Gated Spect Images .....	1906
<i>Xirang Zhang, Álvaro Beloso, Yongyi Yang, Miles N. Wernick, P. Hendrik Pretorius, Michael A. King</i>	
Dot-Product Based Global and Local Feature Fusion for Image Search.....	1911
<i>Zechao Hu, Adrian G. Bors</i>	
Gaitpoint: A Gait Recognition Network Based on Point Cloud Analysis.....	1916
<i>Jiajing Chen, Huantao Ren, Frank Sicong Chen, Senem Velipasalar, Vir V. Phoha</i>	
Attribute Conditioned Fashion Image Captioning.....	1921
<i>Chen Cai, Kim-Hui Yap, Suchen Wang</i>	
Training Strategy for Limited Labeled Data by Learning from Confusion.....	1926
<i>Azeez Idris, Mohammed Khaleel, Wallapak Tavanapong, Junghwan Oh, Piet De Groen</i>	
Robust Grid Detection in Historical Map Images .....	1931
<i>Josef Baloun, Ladislav Lenc, Pavel Král</i>	
Learning an Evolved Mixture Model for Task-Free Continual Learning .....	1936
<i>Fei Ye, Adrian G. Bors</i>	
Utilizing Excess Resources in Training Neural Networks.....	1941
<i>Amit Henig, Raja Giryes</i>	
Switchable CNN-Based Same-Resolution and Super-Resolution In-Loop Restoration for Next Generation Video Codecs .....	1946
<i>Urvang Joshi, Yue Chen, Debargha Mukherjee, Onur Guleryuz, Shan Li, In Suk Chong</i>	
Deep Image Debanding .....	1951
<i>Raymond Zhou, Shahrukh Athar, Zhongling Wang, Zhou Wang</i>	
Breakpoint Dependent Scalable Coding of Optical Flow Volume.....	1956
<i>R. Mathew, D. Taubman</i>	
Computationally-Efficient Vision Transformer for Medical Image Semantic Segmentation Via Dual Pseudo-Label Supervision.....	1961
<i>Ziyang Wang, Nanqing Dong, Irina Voiculescu</i>	
Toward Snow Removal Via the Diversity and Complexity of Snow Image.....	1966
<i>Yan Shen, Jiange Xu, Xiaotao Shao, Jinbiao Zhu, Xinmin Wang</i>	
Maskformer with Improved Encoder-Decoder Module for Semantic Segmentation of Fine- Resolution Remote Sensing Images .....	1971
<i>Zhuoxuan Li, Junli Yang, Bin Wang, Yaqi Li, Ting Pan</i>	
Scanpath Prediction Via Semantic Representation of the Scene .....	1976
<i>Kepei Zhang, Meiqi Lu, Zheng Lu, Xuetao Zhang</i>	



NPCFORMER: Automatic Nasopharyngeal Carcinoma Segmentation Based on Boundary Attention and Global Position Context Attention .....	1981
<i>Ziqin Ling, Guihua Tao, Yang Li, Hongmin Cai</i>	
Recognition-Aware Deep Video Compression for Remote Surveillance .....	1986
<i>Florian Beye, Hayato Itsumi, Charvi Vitthal, Koichi Nihei</i>	
The BRIO-TA Dataset: Understanding Anomalous Assembly Process in Manufacturing .....	1991
<i>Kosuke Moriwaki, Gaku Nakano, Tetsuo Inoshita</i>	
Reference-Guided Texture and Structure Inference for Image Inpainting .....	1996
<i>Taorong Liu, Liang Liao, Zheng Wang, Shin 'Ichi Satoh</i>	
Multi-Stage Feature Alignment Network for Video Super-Resolution.....	2001
<i>Keito Suzuki, Masaaki Ikehara</i>	
2HDED:Net for Joint Depth Estimation and Image Deblurring from a Single Out-Of-Focus Image .....	2006
<i>Saqib Nazir, Lorenzo Vaquero, Manuel Mucientes, Victor M. Brea, Daniela Coltuc</i>	
Ablation-CAM++: Grouped Recursive Visual Explanations for Deep Convolutional Networks .....	2011
<i>Ahmed Salama, Noha Adly, Marwan Torki</i>	
GCN-Based Multi-Modal Multi-Label Attribute Classification in Anime Illustration Using Domain-Specific Semantic Features.....	2021
<i>Ziwen Lan, Keisuke Maeda, Takahiro Ogawa, Miki Haseyama</i>	
Latency Compensation Through Image Warping for Remote Rendering-Based Volumetric Video Streaming .....	2026
<i>Serhan Gül, Cornelius Hellge, Peter Eisert</i>	
3D End-To-End Boundary-Aware Networks for Pancreas Segmentation .....	2031
<i>Ji Li, Yinran Chen, Rong Chen, Dongfang Shen, Xiongbiao Luo</i>	
Manet: Improving Video Denoising with a Multi-Alignment Network .....	2036
<i>Yaping Zhao, Haitian Zheng, Zhongrui Wang, Jiebo Luo, Edmund Y. Lam</i>	
Synchronized Audio-Visual Frames with Fractional Positional Encoding for Transformers in Video-To-Text Translation.....	2041
<i>Philipp Harzig, Moritz Einfalt, Rainer Lienhart</i>	
Stable Clustering Ensemble Based on Evidence Theory .....	2046
<i>Haijie Fu, Xiaodong Yue, Wei Liu, Thierry Denoeux</i>	
Thermal to Visible Image Synthesis Under Atmospheric Turbulence .....	2051
<i>Kangfu Mei, Yiqun Mei, Vishal M. Patel</i>	
Deeply Learned Structure-Aware Transmission for Image Haze Removal .....	2056
<i>Xiongbiao Luo</i>	
Residual U-Structure Nested Conditional Adversarial Nets Colorized CT Improves Deep Learning Based Abdominal Multi-Organ Segmentation.....	2061
<i>Vincent Chandra, Wenkang Fan, Yinran Chen, Xiongbiao Luo</i>	
Hyprogan: Breaking the Dimensional Wall from Human to Anime.....	2066
<i>Yinpeng Chen, Jiale Zhang, Zhiguo Cao, Hao Lu, Weicai Zhong</i>	

Benchmarking Performance of Object Detection Under Image Distortions in an Uncontrolled Environment .....	2071
<i>Ayman Beghdadi, Malik Mallem, Lotfi Beji</i>	
Fast Fusion of Hyperspectral and Multispectral Images: A Tucker Approximation Approach.....	2076
<i>C. Prévost, P. Chainais, R. Boyer</i>	
Defocus Deblur Microscopy Via Head-To-Tail Cross-Scale Fusion .....	2081
<i>Jiahe Wang, Boran Han</i>	
Historian: A Large-Scale Historical Film Dataset with Cinematographic Annotation .....	2087
<i>Daniel Helm, Fabian Jögl, Martin Kampel</i>	
Microscale Image Enhancement Via PCA and Well-Exposedness Maps .....	2092
<i>Zeynep Ovgu Yayci, Ugur Dura, Zeynep Betül Kaya, Arif E. Cetin, Mehmet Turkan</i>	
Stochastic Binary-Ternary Quantization for Communication Efficient Federated Computation .....	2097
<i>Rangu Goutham, Homayun Afrabandpey, Francesco Cricri, Honglei Zhang, Emre Aksu, Miska Hannuksela, Hamed R. Tavakoli</i>	
Unsupervised Anomaly Detection with Self-Training and Knowledge Distillation.....	2102
<i>Hongbo Liu, Kai Li, Xiu Li, Yulun Zhang</i>	
Multi-Scale End-To-End Learning for Point Cloud Geometry Compression.....	2107
<i>Yiqun Xu, Qian Yin, Shanshe Wang, Xinfeng Zhang, Siwei Ma, Wen Gao</i>	
Context Relation Fusion Model for Visual Question Answering .....	2112
<i>Haotian Zhang, Wei Wu</i>	
Single Image Reflection Removal Based on Bi-Channels Prior .....	2117
<i>Wei-Ting Chen, Yi-Wen Chen, Kuan-Yu Chen, Jian-Jiun Ding, Sy-Yen Kuo</i>	
Towards Zero-Latency Video Transmission Through Frame Extrapolation.....	2122
<i>Melan Vijayarajnam, Marco Cagnazzo, Giuseppe Valenzise, Anthony Trioux, Michel Kieffer</i>	
Visual Sound Source Separation with Partial Supervision Learning .....	2127
<i>Huasen Wang, Lingling Gao, Qianchao Tan, Luping Ji</i>	
3D Clues Guided Convolution for Depth Completion .....	2132
<i>Shuwen Yang, Zhichao Fu, Xingjiao Wu, Xiangcheng Du, Tianlong Ma, Liang He</i>	
Non-Deterministic Face Mask Removal Based on 3d Priors .....	2137
<i>Xiangnan Yin, Di Huang, Liming Chen</i>	
LB-NERF: Light Bending Neural Radiance Fields for Transparent Medium .....	2142
<i>Taku Fujitomi, Ken Sakurada, Ryuhei Hamaguchi, Hidehiko Shishido, Masaki Onishi, Yoshinari Kameda</i>	
FUNQUE: Fusion of Unified Quality Evaluators.....	2147
<i>Abhinav K. Venkataramanan, Cosmin Stejerean, Alan C. Bovik</i>	
Temporal Flow Mask Attention for Open-Set Long-Tailed Recognition of Wild Animals in Camera-Trap Images .....	2152
<i>Jeongsoo Kim, Sangmin Woo, Byeongjun Park, Changick Kim</i>	
Unrolling Graph Total Variation for Light Field Image Denoising .....	2162
<i>Rino Yoshida, Kazuya Kodama, Huy Vu, Gene Cheung, Takayuki Hamamoto</i>	

Downsampling Based Light Field Video Coding with Restoration Network Using Joint Spatio-Angular and Epipolar Information .....	2167
<i>Vinh Van Duong, Thuc Nguyen Huu, Jonghoon Yim, Byeungwoo Jeon</i>	
RICHEx: A Robust Inter-Frame Change Exposure for Segmenting Moving Objects.....	2172
<i>Prafulla Saxena, Kuldeep Biradar, Dinesh Kumar Tyagi, Santosh Kumar Vipparthi</i>	
Improving IQA Performance Based on Deep Mutual Learning .....	2182
<i>Guanghui Yue, Di Cheng, Honglv Wu, Qiuping Jiang, Tianfu Wang</i>	
MONO6D: Monocular Vehicle 6D Pose Estimation with 3D Priors.....	2187
<i>Yangxintong Lyu, Remco Royen, Adrian Munteanu</i>	
PDE-Constrained Optimization for Nuclear Mechanics.....	2192
<i>Yekta Kesenci, Aleix Boquet-Pujadas, Emma Van Bodegraven, Sandrine Étienne-Manneville, Elisabeth Labruyère, Jean-Christophe Olivo-Marin</i>	
Forgetful Active Learning with Switch Events: Efficient Sampling for Out-Of-Distribution Data .....	2196
<i>Ryan Benkert, Mohit Prabhushankar, Ghassan Alregib</i>	
An Empirical Approach for Optimising the Impact of a Preprocessor in a Transcoding Pipeline.....	2201
<i>Varoun Hanooman, Anil C. Kokaram, Yeping Su, Neil Birkbeck, Balu Adsumilli</i>	
A Proper Orthogonal Decomposition Approach for Parameters Reduction of Single Shot Detector Networks .....	2206
<i>Laura Meneghetti, Nicola Demo, Gianluigi Rozza</i>	
ProX: A Reversed Once-For-All Network Training Paradigm for Efficient Edge Models Training in Medical Imaging.....	2211
<i>Shin Wei Lim, Chee Seng Chan, Erma Rahayu Mohd Faizal, Kok Howg Ewe</i>	
Differential Invariants for SE(2)-Equivariant Networks .....	2216
<i>Mateus Sangalli, Samy Blusseau, Santiago Velasco-Forero, Jesus Angülo</i>	
Informed Spatial Regularizations for Fast Fusion of Astronomical Images.....	2221
<i>Claire Guilloteau, Thomas Oberlin, Olivier Berné, Nicolas Dobigeon</i>	
Strong-Weak Integrated Semi-Supervision for Unsupervised Domain Adaptation.....	2226
<i>Xiaohu Lu, Hayder Radha</i>	
An Efficient Scheme of Multi-Hypothesis Motion Compensated Prediction for Video Coding Applications.....	2231
<i>Bohan Li, Jingning Han, Yaowu Xu</i>	
Banding Vs. Quality: Perceptual Impact and Objective Assessment.....	2236
<i>Lukáš Krasula, Zhi Li, Christos G. Bampis, Mariana Afonso, Nil Fons Miret, Joel Sole</i>	
Enhanced Dual-Level Representations for Facial Expression Recognition .....	2241
<i>Jie Lei, Zhao Liu, Tong Li, Zeyu Zou, Zunlei Feng, Juan Xu, Xuan Li, Ronghua Liang</i>	
Partition and Reunion: A Viewpoint-Aware Loss for Vehicle Re-Identification .....	2246
<i>Haobo Chen, Yang Liu, Yang Huang, Wei Ke, Hao Sheng</i>	
Content-Adaptive Neural Network Post-Processing Filter with NNR-Coded Weight-Updates .....	2251
<i>Maria Santamaria, Francesco Cricri, Jani Lainema, Ramin G. Youvalari, Honglei Zhang, Miska M. Hannuksela</i>	

Impact of Downscaling on Adversarial Images.....	2256
<i>Benoit Bonnet, Teddy Furon, Patrick Bas</i>	
Case Study of a Calibration Problem in Acquired Hyperspectral Images .....	2261
<i>Christophe Caubet, Gilles Guerrini, Pascal Desbarats, Jean-Philippe Domenger</i>	
Deeblif: Deep Blind Light Field Image Quality Assessment by Extracting Angular and Spatial Information.....	2266
<i>Zhengyu Zhang, Shishun Tian, Wenbin Zou, Luce Morin, Lu Zhang</i>	
Geometry Partitioning with Motion Vector Difference for Video Coding.....	2271
<i>Zhipin Deng, Kai Zhang, Li Zhang</i>	
Barycentric Defense .....	2276
<i>A V Subramanyam, Abhigyan Raj</i>	
Smart Learning of Click and Refine for Nuclei Segmentation on Histology Images.....	2281
<i>Antoine Habis, Vannary Meas-Yedid, Daniel Felipe González Obando, Jean-Christophe Olivo-Marin, Elsa D. Angelini</i>	
Relation Enhanced Vision Language Pre-Training.....	2286
<i>Ju-Hee Lee, Je-Won Kang</i>	
A Self-Contrastive Learning Framework for Skin Cancer Detection Using Histological Images.....	2291
<i>Rocío Del Amor, Adrián Colomer, Sandra Morales, Cristian Pulgarín-Ospina, Liria Terradez, Jose Aneiros-Fernandez, Valery Naranjo</i>	
SRL-SOA: Self-Representation Learning with Sparse 1D-Operational Autoencoder for Hyperspectral Image Band Selection.....	2296
<i>Mete Ahishali, Serkan Kiranyaz, Iftikhar Ahmad, Moncef Gabbouj</i>	
Unsupervised Image Fusion Using Deep Image Priors .....	2301
<i>Xudong Ma, Paul Hill, Nantheera Anantrasirichai, Alin Achim</i>	
Osegnet: Operational Segmentation Network for Covid-19 Detection Using Chest X-Ray Images.....	2306
<i>Aysen Degerli, Serkan Kiranyaz, Muhammad E. H. Chowdhury, Moncef Gabbouj</i>	
Sequential Cross Attention Based Multi-Task Learning.....	2311
<i>Sunkyung Kim, Hyesong Choi, Dongbo Min</i>	
Segmentation-Free Super-Resolved 4D Flow MRI Reconstruction Exploiting Navier-Stokes Equations and Spatial Regularization.....	2316
<i>Sébastien Levilly, Saïd Moussaoui, Jean-Michel Serfaty</i>	
PGTNet: Prototype Guided Transfer Network for Few-Shot Anomaly Localization.....	2321
<i>Zisong Zhuang, Junhang Zhang, Luwei Xiao, Tianlong Ma, Liang He</i>	
Starvqa: Space-Time Attention for Video Quality Assessment .....	2326
<i>Fengchuang Xing, Yuan-Gen Wang, Hanpin Wang, Leida Li, Guopu Zhu</i>	
Hyper-Spectral Imaging for Overlapping Plastic Flakes Segmentation .....	2331
<i>Guillem Martinez, Maya Aghaei, Martin Dijkstra, Bhalaji Nagarajan, Femke Jaarsma, Jaap Van De Loosdrecht, Petia Radeva, Klaas Dijkstra</i>	
Adaptive Compressive Sampling for Mid-Infrared Spectroscopic Imaging.....	2336
<i>Mahsa Lotfollahi, Nguyen Tran, Chalapathi Gajjala, Sebastian Berisha, Zhu Han, David Mayerich, Rohith Reddy</i>	

Learning-Based Lossless Point Cloud Geometry Coding Using Sparse Tensors .....	2341
<i>Dat Thanh Nguyen, André Kaup</i>	
Multiclass-SGCN: Sparse Graph-Based Trajectory Prediction with Agent Class Embedding.....	2346
<i>Ruochen Li, Stamos Katsigiannis, Hubert P. H. Shum</i>	
Combining Non-Data-Adaptive Transforms for OCT Image Denoising by Iterative Basis Pursuit.....	2351
<i>Raha Razavi, Hossein Rabbani, Gerlind Plonka</i>	
Model Attribution of Face-Swap Deepfake Videos .....	2356
<i>Shan Jia, Xin Li, Siwei Lyu</i>	
The Rise of the Lottery Heroes: Why Zero-Shot Pruning is Hard.....	2361
<i>Enzo Tartaglione</i>	
Fusion Temporal Color Constancy .....	2366
<i>Yi Fan, Haoyu Ren, Hsilin Huang</i>	
Probing Seismogenic Faults with Machine Learning .....	2371
<i>Paul A. Johnson, Christopher W. Johnson</i>	
A Self-Supervised Method for Infrared and Visible Image Fusion.....	2376
<i>Xiaopeng Lin, Guanxing Zhou, Weihong Zeng, Xiaotong Tu, Yue Huang, Xinghao Ding</i>	
Uncertainty Aware Multitask Pyramid Vision Transformer for UAV-Based Object Re-Identification.....	2381
<i>Syeda Nyma Ferdous, Xin Li, Siwei Lyu</i>	
Texture-Guided End-To-End Depth Map Compression .....	2386
<i>Bo Peng, Yuying Jing, Dengchao Jin, Xiangrui Liu, Zhaoqing Pan, Jianjun Lei</i>	
Perception-Distortion Trade-Off in the SR Space Spanned by Flow Models.....	2396
<i>Cansu Korkmaz, A. Murat Tekalp, Zafer Dogan, Erkut Erdem, Aykut Erdem</i>	
Entropy-Reduced Attention for Image Compression.....	2401
<i>Feng Wang, Jingyi Chen, Ronggang Wang</i>	
F2RNET: A Full-Resolution Representation Network for Biomedical Image Segmentation.....	2406
<i>Junlong Cheng, Chengrui Gao, Changlin Li, Zhangqiang Ming, Yong Yang, Fengjie Wang, Min Zhu</i>	
Deep Metric Learning-Based Semi-Supervised Regression with Alternate Learning.....	2411
<i>Adina Zell, Gencer Sumbul, Begüm Demir</i>	
Evaluation of Automatically Generated Video Captions Using Vision and Language Models .....	2416
<i>Luis Lebron, Yvette Graham, Noel E. O'Connor, Kevin McGuinness</i>	
Fully Trainable Gaussian Derivative Convolutional Layer .....	2421
<i>Valentin Penaud-Polge, Santiago Velasco-Forero, Jesus Angulo</i>	
A Novel Self-Supervised Cross-Modal Image Retrieval Method in Remote Sensing.....	2426
<i>Gencer Sumbul, Markus Müller, Begüm Demir</i>	
SAT: Self-Adaptive Training for Fashion Compatibility Prediction.....	2431
<i>Ling Xiao, Toshihiko Yamasaki</i>	
Graph Refinement with Regression Prior for 3D Face Reconstruction.....	2436
<i>Chia-Hao Tang, Gee-Sern Jison Hsu, Ting-Yu Tai</i>	

Light Field Image Quality Assessment with Dense Atrous Convolutions .....	2441
<i>Sana Alamgeer, Mylène C. Q. Farias</i>	
Translation of Illustration Artist Style Using SailormoonRedraw Data .....	2446
<i>Keita Awane, Daichi Horita, Hikaru Ikuta, Yusuke Matsui, Kiyoharu Aizawa, Naohiro Yanase</i>	
JPEG Pleno Light Field Encoder with Breakpoint Dependent Affine Wavelet Transform for Disparity Maps .....	2451
<i>R. Mathew, D. Taubman</i>	
A Simple Siamese Framework for Vibration Signal Representations .....	2456
<i>Guanxing Zhou, Yihong Zhuang, Xinghao Ding, Yue Huang, Saqlain Abbas, Xiaotong Tu</i>	
Improved DC Estimation for JPEG Compression Via Convex Relaxation .....	2461
<i>Jianghui Zhang, Bin Chen, Yujun Huang, Han Qiu, Zhi Wang, Shutao Xia</i>	
Multi-Modal Transformer for RGB-D Salient Object Detection.....	2466
<i>Peipei Song, Jing Zhang, Piotr Koniusz, Nick Barnes</i>	
Predicting Path Loss Distributions of a Wireless Communication System for Multiple Base Station Altitudes from Satellite Images .....	2471
<i>Ibrahim Shoer, Bahadır K. Gunturk, Hasan F. Ates, Tuncer Baykas</i>	
Bridging the Domain Gap in Real World Super-Resolution.....	2476
<i>Charles Laroche, Matias Tassano</i>	
Gaussian Kernel-Based Cross Modal Network for Spatio-Temporal Video Grounding .....	2481
<i>Zeyu Xiong, Daizong Liu, Pan Zhou</i>	
CRAB: Certified Patch Robustness Against Poisoning-Based Backdoor Attacks.....	2486
<i>Huxiao Ji, Jie Li, Chentao Wu</i>	
Efficient Inference of Image-Based Neural Network Models in Reconfigurable Systems with Pruning and Quantization .....	2491
<i>José Flich, Laura Medina, Izan Catalán, Carles Hernández, Andrea Bragagnolo, Fabrice Auzanneau, David Briand</i>	
6d Rotation Representation for Unconstrained Head Pose Estimation.....	2496
<i>Thorsten Hempel, Ahmed A. Abdelrahman, Ayoub Al-Hamadi</i>	
Rotation-Equivariant Graph Convolutional Networks for Spherical Data Via Global-Local Attention.....	2501
<i>Jiayi Xu, Qin Yang, Chenglin Li, Junni Zou, Hongkai Xiong, Xinlong Pan, Haipeng Wang</i>	
Real-World Image Super-Resolution Via Kernel Augmentation and Stochastic Variation.....	2506
<i>Haiyu Zhang, Yu Zhu, Jinqiu Sun, Yanning Zhang</i>	
Distributed Radar Autofocus Imaging Using Deep Priors.....	2511
<i>Hassan Mansour, Suhas Lohit, Petros T. Boufounos</i>	
How Accurate is Passive Stereo for 3D Face Reconstruction?.....	2516
<i>Jiahao Luo, Eric Sandoval Ruezga, James Davis</i>	
On the Link Between Emotion, Attention and Content in Virtual Immersive Environments.....	2521
<i>Quentin Guimard, Florent Robert, Camille Bauce, Aldric Ducreux, Lucile Sassatelli, Hui-Yin Wu, Marco Winckler, Auriane Gros</i>	

DeepSAR: Vessel Detection in SAR Imagery with Noisy Labels .....	2526
<i>Manu S Pillai, Abhijeet Bhattacharya, Tanmay Baweja, Rohit Gupta, Mubarak Shah</i>	
D-CBRS: Accounting for Intra-Class Diversity in Continual Learning .....	2531
<i>Yasin Findik, Farhad Pourkamali-Anaraki</i>	
On the Relevance of Multi-Graph Matching for Sulcal Graphs .....	2536
<i>R. Yadav, F. X. Dupé, S. Takerkart, G. Auzias</i>	
Scene Context Enhanced Network for Person Search .....	2541
<i>Mengyuan Ma, Hujun Yin</i>	
GAITTAKE: Gait Recognition by Temporal Attention and Keypoint-Guided Embedding .....	2546
<i>Hung-Min Hsu, Yizhou Wang, Cheng-Yen Yang, Jenq-Neng Hwang, Hoang Le Uyen Thuc, Kwang-Ju Kim</i>	
Super-Resolution Magnetic Resonance Imaging Using Segmented Signals in Phase-Scrambling Fourier Transform Imaging and Deep Learning .....	2551
<i>Kazuki Yamato, Satoshi Ito</i>	
An Unsupervised Cross-Modal Hashing Method Robust to Noisy Training Image-Text Correspondences in Remote Sensing .....	2556
<i>Georgii Mikriukov, Mahdyar Ravanbakhsh, Begüm Demir</i>	
Chinese Mandarin Lipreading Using Cascaded Transformers with Multiple Intermediate Representations .....	2561
<i>Xinghua Ma, Shilin Wang</i>	
A Noise Preserving Sharpening Filter for CT Image Enhancement .....	2566
<i>Madhuri Nagare, Jie Tang, Obaidullah Rahman, Brian Nett, Roman Melnyk, Ken D. Sauer, Charles A. Bouman</i>	
Rain-Prior Injected Knowledge Distillation for Single Image Deraining.....	2571
<i>Yuzhang Hu, Wenhan Yang, Jiaying Liu, Zongming Guo</i>	
Active Learning for Hyperspectral Image Classification Via Hypergraph Neural Network .....	2576
<i>Yongqing Sun, Anyong Qin, Yukihiro Bandoh, Chenqiang Gao, Yusuke Hiwasaki</i>	
Mixup-Based Deep Metric Learning Approaches for Incomplete Supervision.....	2581
<i>Luiz H. Buris, Daniel C. G. Pedronette, Joao P. Papa, Jurandy Almeida, Gustavo Carneiro, Fabio A. Faria</i>	
Local Embedding for Axial Attention .....	2586
<i>Ryouichi Furukawa, Kazuhiro Hotta</i>	
Trajectory-Based Pattern of Life Analysis.....	2591
<i>Hua-Mei Chen, Erik Blasch, Nichole Sullivan, Genshe Chen</i>	
Hologram Super-Resolution Using Dual-Generator GAN .....	2596
<i>Minkyu Jee, Hakdong Kim, Minsung Yoon, Cheongwon Kim</i>	
Relational Future Captioning Model for Explaining Likely Collisions in Daily Tasks .....	2601
<i>Motonari Kambara, Komei Sugiura</i>	
Weighted Supervised Contrastive Learning and Domain Mixture for Generalized Person Re- Identification .....	2606
<i>Kaixiang Chen, Tiantian Gong, Liyan Zhang</i>	

Mask-Guided Attention and Episode Adaptive Weights for Few-Shot Segmentation.....	2611
<i>Hyeongjun Kwon, Taeyong Song, Sunok Kim, Kwanghoon Sohn</i>	
GPU-Accelerated Sift-Aided Source Identification of Stabilized Videos .....	2616
<i>Andrea Montibeller, Cecilia Pasquini, Giulia Boato, Stefano Dell'Anna, Fernando Pérez-González</i>	
Unsupervised Generative Network for Blind Hyperspectral Image Super-Resolution .....	2621
<i>Zhe Liu, Xian-Hua Han, Jiande Sun, Yen-Wei Chen</i>	
Accurate and Robust Image Correspondence for Structure-From-Motion and Its Application to Multi-View Stereo .....	2626
<i>Shuhei Hoshi, Koichi Ito, Takafumi Aoki</i>	
Estimation of 3D Body Shape and Clothing Measurements from Frontal-And Side-View Images .....	2631
<i>Kundan Sai Prabhu Thota, Sungho Suh, Bo Zhou, Paul Lukowicz</i>	
Fully Shareable Scene Text Recognition Modeling for Horizontal and Vertical Writing.....	2636
<i>Shota Orihashi, Yoshihiro Yamazaki, Mihiro Uchida, Akihiko Takashima, Ryo Masumura</i>	
Generalized Deep Internal Learning for Hyperspectral Image Super Resolution .....	2641
<i>Zhe Liu, Xian-Hua Han</i>	
Fast Semantic Image Segmentation for Autonomous Systems.....	2646
<i>Christos Papaioannidis, Ioannis Mademlis, Ioannis Pitas</i>	
Excavating RoI Attention for Underwater Object Detection .....	2651
<i>Xutao Liang, Pinhao Song</i>	
VCT-NET: An Octa Retinal Vessel Segmentation Network Based on Convolution and Transformer .....	2656
<i>Xiaoming Liu, Di Zhang, Xin Zhu, Jinshan Tang</i>	
AVT: Au-Assisted Visual Transformer for Facial Expression Recognition.....	2661
<i>Rijin Jin, Sirui Zhao, Zhongkai Hao, Yifan Xu, Tong Xu, Enhong Chen</i>	
Image Restoration Using Probability-Inducing Nuclear Norm Minimization.....	2666
<i>Zhongxing Zhang, Hui Liu, Qiang Guo</i>	
VEFNet: An Event-RGB Cross Modality Fusion Network for Visual Place Recognition .....	2671
<i>Ze Huang, Rui Huang, Li Sun, Cheng Zhao, Min Huang, Songzhi Su</i>	
OCTA Retinal Vessel Segmentation Based on Vessel Thickness Inconsistency Loss .....	2676
<i>Xiaoming Liu, Lizhi Hu, Xiao Li, Jinshan Tang</i>	
Style Transfer Using Optimal Transport Via Wasserstein Distance.....	2681
<i>Oseok Ryu, Bowon Lee</i>	
Object-Centric and Memory-Guided Normality Reconstruction for Video Anomaly Detection.....	2691
<i>Khalil Bergaoui, Yassine Naji, Aleksandr Setkov, Angélique Loesch, Michèle Gouiffès, Romaric Audigier</i>	
Improving Deep Metric Learning with Virtual Classes and Examples Mining .....	2696
<i>Pierre Jacob, David Picard, Aymeric Histace</i>	
SYGNet: A SVD-YOLO Based GhostNet for Real-Time Driving Scene Parsing .....	2701
<i>Hewei Wang, Bohun Zhu, Yijie Li, Kaiwen Gong, Ziyuan Wen, Shaofan Wang, Soumyabrata Dev</i>	



CNN-Based Fast CU Partitioning Algorithm for VVC Intra Coding .....	2706
<i>Jun Xu, Guoqing Wu, Chen Zhu, Yan Huang, Li Song</i>	
Gaussian Distribution-Based Mode Selection for Intra Prediction of Spatial SHVC.....	2711
<i>Dayong Wang, Xin Wang, Yu Sun, Weisheng Li, Xin Lu, Frederic Dufaux</i>	
Sub-Pixel Optical Satellite Image Registration for Ground Deformation Using Deep Learning .....	2716
<i>Tristan Montagnon, James Hollingsworth, Erwan Pathier, Mathilde Marchandon, Mauro Dalla Mura, Sophie Giffard-Roisin</i>	
End-To-End Deep Multi-Score Model for No-Reference Stereoscopic Image Quality Assessment.....	2721
<i>Oussama Messai, Aladine Chetouani</i>	
NCTR: Neighborhood Consensus Transformer for Feature Matching .....	2726
<i>Xiaoyong Lu, Songlin Du</i>	
Stacking More Linear Operations with Orthogonal Regularization to Learn Better .....	2731
<i>Weixiang Xu, Jian Cheng</i>	
New Active Learning Approach for Seabed Segmentation .....	2736
<i>Lionel Pibre, Jérôme Pasquet, Vincent Douzal, Claire Noël</i>	
Coronary Artery Centerline Tracking with the Morphological Skeleton Loss .....	2741
<i>Mario Viti, Hugues Talbot, Bassam Abdallah, Etienne Perot, Nicolas Gogin</i>	
Deformable Alignment and Scale-Adaptive Feature Extraction Network for Continuous-Scale Satellite Video Super-Resolution.....	2746
<i>Ning Ni, Hanlin Wu, Libao Zhang</i>	
Unsupervised Multi-Task Learning for 3D Subtomogram Image Alignment, Clustering and Segmentation .....	2751
<i>Haoyi Zhu, Chuting Wang, Yuanxin Wang, Zhaoxin Fan, Mostofa Rafid Uddin, Xin Gao, Jing Zhang, Xiangrui Zeng, Min Xu</i>	
Revisiting Click-Based Interactive Video Object Segmentation .....	2756
<i>Stéphane Vujasinovic, Sebastian Bullinger, Stefan Becker, Norbert Scherer-Negenborn, Michael Arens, Rainer Stiefelhagen</i>	
A CNN-Based Post-Processor for Perceptually-Optimized Immersive Media Compression.....	2761
<i>Angeliki Katsenou, Fan Zhang, David Bull</i>	
Fine-Tune Your Classifier: Finding Correlations with Temperature.....	2766
<i>Benjamin Chamand, Olivier Risser-Maroux, Camille Kurtz, Philippe Joly, Nicolas Loménie</i>	
Optimal Noise-Aware Imaging with Switchable Prefilters.....	2771
<i>Zilai Gong, Masayuki Tanaka, Yusuke Monno, Masatoshi Okutomi</i>	
An Algebraic Optimization Approach to Image Registration.....	2776
<i>Zikai Sun, Zihan Zhang, Thierry Blu</i>	
Direct Imaging Using Physics Informed Neural Networks .....	2781
<i>Tariq Alkhalifah, Xinquan Huang</i>	
Self-Supervised Domain Adaptation in Crowd Counting.....	2786
<i>Pha Nguyen, Thanh-Dat Truong, Miaoqing Huang, Yi Liang, Ngan Le, Khoa Luu</i>	

Optimal Transport-Based Graph Matching for 3D Retinal Oct Image Registration.....	2791
<i>Xin Tian, Nantheera Anantrasirichai, Lindsay Nicholson, Alin Achim</i>	
Temporally Precise Action Spotting in Soccer Videos Using Dense Detection Anchors .....	2796
<i>João V. B. Soares, Avijit Shah, Topojoy Biswas</i>	
Towards Efficient Capsule Networks .....	2801
<i>Riccardo Renzulli, Marco Grangetto</i>	
Defining Point Cloud Boundaries Using Pseudopotential Scalar Field Implicit Surfaces .....	2806
<i>Ethan Payne, Amanda S. Fernandez</i>	
Graph Convolutional Networks and Manifold Ranking for Multimodal Video Retrieval.....	2811
<i>Lucas Barbosa De Almeida, Lucas Pascotti Valem, Daniel Carlos Guimarães Pedronette</i>	
MMSR: Multiple-Model Learned Image Super-Resolution Benefiting from Class-Specific Image Priors .....	2816
<i>Cansu Korkmaz, A. Murat Tekalp, Zafer Dogan</i>	
Learning-Based End-To-End Video Compression with Spatial-Temporal Adaptation.....	2821
<i>Zhaobin Zhang, Yue Li, Kai Zhang, Li Zhang, Yuwen He</i>	
Color Constancy Beyond Standard Illuminants.....	2826
<i>Oguzhan Ulucan, Diclehan Ulucan, Marc Ebner</i>	
IID-NORD: A Comprehensive Intrinsic Image Decomposition Dataset.....	2831
<i>Diclehan Ulucan, Oguzhan Ulucan, Marc Ebner</i>	
Camera Self-Calibration: Deep Learning from Driving Scenes .....	2836
<i>Arya Rachman, Jürgen Seiler, André Kaup</i>	
Semantic Alignment for Multi-Item Compression .....	2841
<i>Tom Bachard, Anju Jose Tom, Thomas Maugey</i>	
CMA-CLIP: Cross-Modality Attention Clip for Text-Image Classification.....	2846
<i>Jinmiao Fu, Shaoyuan Xu, Huidong Liu, Yang Liu, Ning Xie, Chien-Chih Wang, Jia Liu, Yi Sun, Bryan Wang</i>	
A Data-Driven Approach for Automated Integrated Circuit Segmentation of Scan Electron Microscopy Images .....	2851
<i>Zifan Yu, Bruno Machado Trindade, Michael Green, Zhikang Zhang, Pullela Sneha, Erfan Bank Tavakoli, Christopher Pawlowicz, Fengbo Ren</i>	
Illumination-Aware Style Transfer for Image Harmonization .....	2856
<i>Teng Ren, Haitao Zhang</i>	
Subjective Quality Evaluation of Point Clouds with 3D Stereoscopic Visualization .....	2861
<i>João Prazeres, Manuela Pereira, Antonio M. G. Pinheiro</i>	
Low-Light Image Enhancement Method by Using a Modified Gamma Transform for Convex Combination Coefficients.....	2866
<i>Mashiho Mukaida, Yoshiaki Ueda, Noriaki Suetake</i>	
Hierarchical Training for Distributed Deep Learning Based on Multimedia Data Over Band-Limited Networks.....	2871
<i>Siyu Qi, Lahiru D. Chamain, Zhi Ding</i>	

MANET: Mitral Annulus Point Tracking Network in Cardiac Magnetic Resonance.....	2876
<i>Jianguo Chen, Xulei Yang, Shuang Leng, Ru-San Tan, Zeng Zeng, Liang Zhong</i>	
PASTS: Toward Effective Distilling Transformer for Panoramic Semantic Segmentation .....	2881
<i>Jihyun Kim, Somi Jeong, Kwanghoon Sohn</i>	
REPNP: Plug-And-Play with Deep Reinforcement Learning Prior for Robust Image Restoration .....	2886
<i>Chong Wang, Rongkai Zhang, Saiprasad Ravishankar, Bihan Wen</i>	
Graph Autoencoder-Based Embedded Learning in Dynamic Brain Networks for Autism Spectrum Disorder Identification.....	2891
<i>Fuad Noman, Sin-Yee Yap, Raphaël C.-W. Phan, Hernando Ombao, Chee-Ming Ting</i>	
Coupling Attention and Convolution for Heuristic Network in Visual Dialog.....	2896
<i>Zefan Zhang, Tianling Jiang, Chunping Liu, Yi Ji</i>	
Dualfeat: Dual Feature Aggregation for Video Object Detection.....	2901
<i>Jing Pan, Kaiwen Du, Yan Yan, Hanzi Wang</i>	
Multi-Scale Deformable Transformer Encoder Based Single-Stage Pedestrian Detection .....	2906
<i>Jing Yuan, Panagiotis Barmpoutis, Tania Stathaki</i>	
Natural Image Matting with Shifted Window Self-Attention.....	2911
<i>Zhikun Wang, Yang Liu, Zonglin Li, Chenyang Wang, Shengping Zhang</i>	
SFIC: Sparsity-Driven Facial Image Compression Network.....	2916
<i>Fangyuan Gao, Xin Deng, Tie Liu, Mai Xu</i>	
AV-GAZE: A Study on the Effectiveness of Audio Guided Visual Attention Estimation for Non- Profilic Faces.....	2921
<i>Shreya Ghosh, Abhinav Dhall, Munawar Hayat, Jarrod Knibbe</i>	
DCT-Based Residual Network for NIR Image Colorization .....	2926
<i>Hongcheng Jiang, Paras Maharjan, Zhu Li, George York</i>	
Deep Unrolling of Diffusion Process with Morphological Laplacian and Its Implementation with SIMD Instructions .....	2931
<i>Gouki Okada, Makoto Nakashizuka</i>	
Video-Analytics Task-Aware Quad-Tree Partitioning and Quantization for HEVC.....	2936
<i>Praneet Singh, Edward J. Delp, Amy R. Reibman</i>	
Lisnet: A Covid-19 Lung Infection Segmentation Network Based on Edge Supervision and Multi- Scale Context Aggregation .....	2941
<i>Jing Wang, Bicao Li, Jie Huang, Miaomiao Wei, Mengxing Song, Zongmin Wang</i>	
DCAN: A Dual Cascade Attention Network for Fusing Pet and MRI Images .....	2946
<i>Yifan Du, Bicao Li, Zhoufeng Liu, Chunlei Li, Zhuhong Shao, Zongmin Wang</i>	
Undersampled Dynamic Fourier Ptychography Via Phaseless PCA .....	2951
<i>Zhengyu Chen, Seyedehsara Sara Nayer, Namrata Vaswani</i>	
Cross-Type Attribute Prediction for Point Cloud Compression.....	2956
<i>Tian Chen, Wei Zhang, Fuzheng Yang, Jing Wang, Ge Li</i>	
U-Deepdig: Scalable Deep Decision Boundary Instance Generation.....	2961
<i>Jane Berk, Martin Jaszewski, Charles-Alban Deledalle, Shubin Parameswaran</i>	

Distribution-Driven Predictor Screening for Point Cloud Attribute Compression .....	2966
<i>Jingyun Lu, Wei Zhang, Lihui Yang, Fuzheng Yang</i>	
Fusion-Based Backlit Image Enhancement Using Multiple S-Type Transformations for Convex Combination Coefficients.....	2971
<i>Yoshiaki Ueda, Takanori Koga, Noriaki Suetake</i>	
Positive Unlabeled Learning by Semi-Supervised Learning .....	2976
<i>Zhuowei Wang, Jing Jiang, Guodong Long</i>	
A Multi-Scale Content-Insensitive Fusion CNN for Source Social Network Identification .....	2981
<i>Manisha, Chang-Tsun Li, Karunakar A. Kotegar</i>	
CyEDA: Cycle-Object Edge Consistency Domain Adaptation .....	2986
<i>Jing Chong Beh, Kam Woh Ng, Jie Long Kew, Che-Tsung Lin, Chee Seng Chan, Shang-Hong Lai, Christopher Zach</i>	
Lighter and Faster Two-Pathway CMRNet for Video Saliency Prediction .....	2991
<i>Sai Phani Kumar Malladi, Jayanta Mukhopadhyay, Mohamed-Chaker Larabi, Santanu Chaudhury</i>	
Adversarial Training with Channel Attention Regularization .....	2996
<i>Seungju Cho, Junyoung Byun, Myung-Joon Kwon, Yoonji Kim, Changick Kim</i>	
Prohibited Object Detection in X-Ray Images with Dynamic Deformable Convolution and Adaptive IoU .....	3001
<i>Chunjie Ma, Li Zhuo, Jiafeng Li, Yutong Zhang, Jing Zhang</i>	
Feature Space Disentangling Based on Spatial Attention for Makeup Transfer .....	3006
<i>Jinli Zhou, Yaxiong Chen, Zhaoyang Sun, Chang Zhan, Feng Liu, Shengwu Xiong</i>	
Transformer Compressed Sensing Via Global Image Tokens.....	3011
<i>Marlon Bran Lorenzana, Craig Engstrom, Shekhar S. Chandra</i>	
Revisiting the Efficiency of UGC Video Quality Assessment.....	3016
<i>Yilin Wang, Joong Gon Yim, Neil Birkbeck, Junjie Ke, Hossein Talebi, Xi Chen, Feng Yang, Balu Adsumilli</i>	
Probability Model Estimation for M-Ary Random Variables.....	3021
<i>Jingning Han, Yaowu Xu</i>	
Differential Contrast Based Adaptive Quantization for Perceptual Quality Optimization in Image Coding .....	3026
<i>Jingning Han, Cheng Chen, Frank Galligan, Pascal Massimino, Paul Wilkins, Wan-Teh Chang, Yannis Guyon, Yaowu Xu, James Bankoski</i>	
Viewport-Oriented Panoramic Image Inpainting.....	3031
<i>Zhuoyi Shang, Yanwei Liu, Guoyi Li, Yunjian Zhang, Jingbo Miao, Jinxia Liu, Liming Wang</i>	
Improving Self-Supervised Learning for Out-Of-Distribution Task Via Auxiliary Classifier .....	3036
<i>Harshita Boonlia, Tanmoy Dam, Md Meftahul Ferdous, Sreenatha G. Anavatti, Ankan Mullick</i>	
Subspace Modeling for Fast Out-Of-Distribution and Anomaly Detection.....	3041
<i>Ibrahima J. Ndiour, Nilesh A. Ahuja, Omesh Tickoo</i>	
Multiple-Phases-Sectionalized-Modulation Sar Barrage Jamming Method Based on NLFM Signal .....	3046
<i>Dongyang Cheng, Ning Li, Gaofeng Shu, Zhengwei Guo</i>	

Bi-Modal Compositional Network for Feature Disentanglement.....	3051
<i>Aditya Panda, Bikash Santra, Dipti Prasad Mukherjee</i>	
Adaptive Warping Network for Transferable Adversarial Attacks .....	3056
<i>Minji Son, Myung-Joon Kwon, Hee-Seon Kim, Junyoung Byun, Seungju Cho, Changick Kim</i>	
Memory-Efficient Learned Image Compression with Pruned Hyperprior Module.....	3061
<i>Ao Luo, Heming Sun, Jinming Liu, Jiro Katto</i>	
How Sound Affects Visual Attention in Omnidirectional Videos.....	3066
<i>Jie Li, Guangtao Zhai, Yucheng Zhu, Jun Zhou, Xiao-Ping Zhang</i>	
Residual Swin Transformer Unet with Consistency Regularization for Automatic Breast Ultrasound Tumor Segmentation .....	3071
<i>Xianwei Zhuang, Xiner Zhu, Haoji Hu, Jincao Yao, Wei Li, Chen Yang, Liping Wang, Na Feng, Dong Xu</i>	
Automatic Dataset Generation for Specific Object Detection .....	3076
<i>Xiaotian Lin, Leiyang Xu, Qiang Wang</i>	
Detection-Identification Balancing Margin Loss for One-Stage Multi-Object Tracking .....	3081
<i>Heansung Lee, Suhwan Cho, Sungjun Jang, Jungho Lee, Sungmin Woo, Sangyoum Lee</i>	
Learning to Generate High-Quality Images for Homography Estimation.....	3086
<i>Yijun Lin, Fengge Wu, Junsuo Zhao</i>	
Detecting Gan-Generated Images by Orthogonal Training of Multiple CNNs .....	3091
<i>Sara Mandelli, Nicolò Bonettini, Paolo Bestagini, Stefano Tubaro</i>	
A Robust Misalignment Estimation Approach in Non-Aligned Double JPEG Compression Scenario.....	3096
<i>Giovanni Puglisi, Sebastiano Battiato</i>	
Mapping Functional Changes in the Embryonic Heart of Atlantic Salmon Post Viral Infection Using AI Technique .....	3101
<i>S. Chattopadhyay, A. Malachowski, J. K. Swain, R. A. Dalmo, A. Horsch, D. K. Prasad</i>	
SSP-Regularizer: A Star Shape Prior Based Regularizer for Vessel Lumen Segmentation in Oct Images .....	3106
<i>Chen Zhao, Huaizhong Zhang, Junyuan Wang, Fuqiang Liu</i>	
Dynamic Template Update for Visual Object Tracking.....	3111
<i>Kibum Yun, Kyujin Shim, Kangwook Ko, Changick Kim</i>	
Improving Robustness to Out-Of-Distribution Data by Frequency-Based Augmentation .....	3116
<i>Koki Mukai, Soichiro Kumano, Toshihiko Yamasaki</i>	
Tensor-Based Deepfake Detection in Scaled and Compressed Images .....	3121
<i>Sara Concas, Gianpaolo Perelli, Gian Luca Marcialis, Giovanni Puglisi</i>	
Color Image Restoration in the Low Photon-Count Regime Using Expectation Propagation .....	3126
<i>Dan Yao, Yoann Altmann, Stephen McLaughlin</i>	
Impact of Self-View Latency on Quality of Experience: Analysis of Natural Interaction in XR Environments.....	3131
<i>Carlos Cortés, Jesús Gutiérrez, Pablo Pérez, Irene Viola, Pablo César, Narciso García</i>	

Automatic Inspection of Cultural Monuments Using Deep and Tensor-Based Learning on Hyperspectral Imagery .....	3136
<i>Ioannis N. Tzortzis, Ioannis Rallis, Konstantinos Makantasis, Anastasios Doulamis, Nikolaos Doulamis, Athanasios Voulodimos</i>	
Reviving Iterative Training with Mask Guidance for Interactive Segmentation .....	3141
<i>Konstantin Sofiiuk, Ilya A. Petrov, Anton Konushin</i>	
A Comparison of Regularization Methods for Near-Light-Source Perspective Shape-From-Shading.....	3146
<i>Bilal Ahmad, Pål Anders Floor, Ivar Farup</i>	
Dimensionality Reduction Techniques with Hydranet Framework for HSI Classification .....	3151
<i>Mohammed Q. Alkhatib, Mina Al-Saad, Nour Aburaed, Saeed Al Mansoori, Hussain Al Ahmad</i>	
Fast Learning from Label Proportions with Small Bags .....	3156
<i>Denis Barucic, Jan Kybic</i>	
On Adversarial Robustness of Deep Image Deblurring.....	3161
<i>Kanchana Vaishnavi Gandikota, Paramanand Chandramouli, Michael Moeller</i>	
Multi-Scale Transformer-Based Feature Combination for Image Retrieval.....	3166
<i>Carlos Roig Mari, David Varas Gonzalez, Elisenda Bou-Balust</i>	
Point Cloud Completion by Minimizing Prediction Errors in Both 2D and 3D Spaces.....	3171
<i>Yeongheon Mok, Mingi Kim, Heegwang Kim, Joonki Paik</i>	
Discriminate Clearer to Rank Better: Image Cropping by Amplifying View-Wise Differences .....	3176
<i>Zhiyu Pan, Zhiguo Cao, Ke Xian, Hao Lu, Weicai Zhong</i>	
Non-Rigid Multiple Point Set Registration Using Latent Gaussian Mixture .....	3181
<i>Hao Huang, Cheng Chen, Yi Fang</i>	
Variance-Reduced Randomized Kaczmarz Algorithm in XFEL Single-Particle Imaging Phase Retrieval .....	3186
<i>Yin Xian, Haiguang Liu, Xuecheng Tai, Yang Wang</i>	
Memory Reduction of Cgh Calculation Based on Integrating Point Light Sources .....	3191
<i>Ryota Koiso, Ryosuke Watanabe, Keisuke Nonaka, Tatsuya Kobayashi</i>	
Region-Of-Interest Coding Schemes for Http Adaptive Streaming with VVC .....	3196
<i>Robert Skupin, Yago Sánchez, Cornelius Hellge, Thomas Schierl, Moncef Gabbouj</i>	
Direct Alignment of Narrow Field-Of-View Hyperspectral Data and Full-View RGB Image.....	3201
<i>Guillaume Caron, Suzan Joseph Kessy, Yasuhiro Mukaigawa, Takuya Funatomi</i>	
End-To-End Depth Map Compression Framework Via Rgb-To-Depth Structure Priors Learning .....	3206
<i>Minghui Chen, Pingping Zhang, Zhuo Chen, Yun Zhang, Xu Wang, Sam Kwong</i>	
Novel Reconstruction with Inter-Frame Motion Compensation for Fast Super-Resolution Live Cell Imaging.....	3211
<i>Adam Harmanec, Zuzana Kadlecova, Filip Sroubek</i>	
Pointivae: Invertible Variational Autoencoder Framework for 3D Point Cloud Generation .....	3216
<i>Jingyi Chen, Ge Li, Ruonan Zhang, Thomas H. Li, Wei Gao</i>	

A Patch-Based Algorithm for Diverse and High Fidelity Single Image Generation .....	3221
<i>Nicolas Cherel, Andrés Almansa, Yann Gousseau, Alasdair Newson</i>	
Neural Architecture Search for Fracture Classification.....	3226
<i>Aloïs Pouchot, Kévin Bailly, Alexis Ducarouge, Olivier Sigaud</i>	
Mask Guided Spatial-Temporal Fusion Network for Multiple Object Tracking.....	3231
<i>Shuangye Zhao, Yubin Wu, Shuai Wang, Wei Ke, Hao Sheng</i>	
MDNet: Motion Distinction Network for Effective Action Recognition .....	3236
<i>Rongrong Jin, Weirong Ye, Xiao Wang, Yan Yan, Hanzi Wang</i>	
Modeling the HEVC Encoding Energy Using the Encoder Processing Time .....	3241
<i>Geetha Ramasubbu, André Kaup, Christian Herglotz</i>	
Image Data Augmentation with Unpaired Image-To-Image Camera Model Translation.....	3246
<i>Chi Fa Foo, Stefan Winkler</i>	
Iterative Kernel Reconstruction for Deep Learning-Based Blind Image Super-Resolution.....	3251
<i>Suleyman Yildirim, Hasan F. Ates, Bahadir K. Gunturk</i>	
FusionCount: Efficient Crowd Counting Via Multiscale Feature Fusion.....	3256
<i>Yiming Ma, Victor Sanchez, Tanaya Guha</i>	
Convolutional Neural Tree for Video-Based Facial Expression Recognition Embedding Emotion Wheel as Inductive Bias .....	3261
<i>Ryo Miyoshi, Shuichi Akizuki, Kensuke Tobitani, Noriko Nagata, Manabu Hashimoto</i>	
Occlusion-Invariant Representation Alignment for Entity Re-Identification.....	3266
<i>Zhanghao Jiang, Ke Xu, Heshan Du, Huan Jin, Zheng Lu, Qian Zhang</i>	
I Saw: A Self-Attention Weighted Method for Explanation of Visual Transformers.....	3271
<i>Rupayan Mallick, Jenny Benois-Pineau, Akka Zemhari</i>	
Binary Morphological Neural Network.....	3276
<i>Theodore Aouad, Hugues Talbot</i>	
Non-Smooth Energy Dissipating Networks .....	3281
<i>Hannah Dröge, Thomas Möllenhoff, Michael Möller</i>	
Deep Residual Networks with Common Linear Multi-Step and Advanced Numerical Schemes .....	3286
<i>Zhengbo Luo, Weilian Zhou, Sei-Ichiro Kamata, Xuehui Hu</i>	
Deep Learning from Imaging Genetics for Schizophrenia Classification .....	3291
<i>Hongkun Yu, Thomas Florian, Vince Calhoun, Dong Hye Ye</i>	
GraphEx: Facial Action Unit Graph for Micro-Expression Classification .....	3296
<i>Shu-Min Leong, Fuad Noman, Raphaël C.-W. Phan, Vishnu Monn Baskaran, Chee-Ming Ting</i>	
Hyperbolic Spatial Temporal Graph Convolutional Networks.....	3301
<i>Abdelrahman Mostafa, Wei Peng, Guoying Zhao</i>	
Trellis-Coded Quantization for End-To-End Learned Image Compression .....	3306
<i>Karsten Sühning, Michael Schäfer, Jonathan Pfaff, Heiko Schwarz, Detlev Marpe, Thomas Wiegand</i>	

Le-BEiT: A Local-Enhanced Self-Supervised Transformer for Semantic Segmentation of High Resolution Remote Sensing Images .....	3311
<i>Yifei Huang, Zideng Feng, Junli Yang, Bin Wang, Jiaying Wang, Zhenglin Xian</i>	
HDR-AGAN: Ghost-Free High Dynamic Range Imaging with Attention Guided Adversarial Network.....	3316
<i>Yu-Ming Huang, Jui-Chiu Chiang, Sau-Gee Chen</i>	
Retina-Inspired Spatio-Temporal Filtering for Dynamic Video Coding.....	3321
<i>Effrosyni Doutsis, Marc Antonini, Panagiotis Tsakalides</i>	
Reproducing Sensory Induced Hallucinations Via Neural Fields.....	3326
<i>Cyprien Tamekue, Dario Prandi, Yacine Chitour</i>	
Quadtree-Based Guided CNN for AV1 In-Loop Filtering .....	3331
<i>Junjie Wang, Gongchun Ding, Dandan Ding, Debargha Mukherjee, Urvang Joshi, Yue Chen</i>	
Dynamic Mutual Enhancement Network for Single Remote Sensing Image Dehazing.....	3336
<i>Shan Wang, Libao Zhang</i>	
Monitoring of Varroa Infestation Rate in Beehives: A Simple AI Approach.....	3341
<i>Lukas Picek, Adam Novozamsky, Radmila C. Frydrychova, Barbara Zitova, Pavel Mach</i>	
Pairwise Rotational-Difference LBP for Fine-Grained Leaf Image Retrieval.....	3346
<i>Xin Chen, Bin Wang, Yongsheng Gao</i>	
Incrementally Semi-Supervised Classification of Arthritis Inflammation on a Clinical Dataset.....	3351
<i>Theodore Aouad, Clementina Lopez-Medina, Charlotte Martin-Peltier, Adrien Bordner, Sisi Yang, Anna Molto, Maxime Dougados, Antoine Feydy, Hugues Talbot</i>	
Detecting a Child's Stimming Behaviours for Autism Spectrum Disorder Diagnosis Using Rgbpose-Slowfast Network.....	3356
<i>Jeba Berlin S, Deepak Pandian, Shyam Sundar Rajagopalan, Dineshbabu Jayagopi</i>	
An Effective Fusion Method to Enhance the Robustness of CNN .....	3361
<i>Yating Ma, Zhichao Lian</i>	
A Novel Contrastive Learning Framework for Self-Supervised Anomaly Detection.....	3366
<i>Jingze Li, Zhichao Lian, Min Li</i>	
Fast Adaptive Self-Supervised Underwater Image Enhancement .....	3371
<i>Mengxiao Huang, Yang Wang, Weiqi Zou, Yang Cao</i>	
Towards a Unified View of Unsupervised Non-Local Methods for Image Denoising: The NL-Ridge Approach .....	3376
<i>Sébastien Herbreteau, Charles Kervrann</i>	
Learning Graph Features for Colored Mesh Visual Quality Assessment .....	3381
<i>Mohammed El Hassouni, Hocine Cherifi</i>	
A Comparison of Different Atmospheric Turbulence Simulation Methods for Image Restoration.....	3386
<i>Nithin Gopalakrishnan Nair, Kangfu Mei, Vishal M. Patel</i>	
Is the U-NET Directional-Relationship Aware? .....	3391
<i>Mateus Riva, Pietro Gori, Florian Yger, Isabelle Bloch</i>	



End-To-End Spatial-Angular Light Field Super-Resolution Using Parallax Structure Preservation Strategy.....	3396
<i>Linjie Zhou, Wei Gao, Ge Li</i>	
A Self-Training Weakly-Supervised Framework for Pathologist-Like Histopathological Image Analysis.....	3401
<i>Laëtitia Launet, Adrián Colomer, Andrés Mosquera-Zamudio, Anaïs Moscardó, Carlos Monteagudo, Valery Naranjo</i>	
Blind Quality of a 3D Reconstructed MESH .....	3406
<i>Remy Alcouffe, Simone Gasparini, Géraldine Morin, Sylvie Chambon</i>	
Bridging the Gap Between Image Coding for Machines and Humans.....	3411
<i>Nam Le, Honglei Zhang, Francesco Cricri, Ramin G. Youvalari, Hamed Rezagadegan Tavakoli, Emre Aksu, Miska M. Hannuksela, Esa Rahtu</i>	
Gradient-Based Severity Labeling for Biomarker Classification in OCT .....	3416
<i>Kiran Kokilepersaud, Mohit Prabhushankar, Ghassan Alregib, Stephanie Trejo Corona, Charles Wykoff</i>	
Bi-Polar Mask for Joint Cell and Nuclei Instance Segmentation .....	3421
<i>Wanbi Zhao, Xu Zhou</i>	
AI-Based Compression: A New Unintended Counter Attack on JPEG-Related Image Forensic Detectors?.....	3426
<i>Alexandre Berthet, Jean-Luc Dugelay</i>	
NBD-GAP: Non-Blind Image Deblurring Without Clean Target Images .....	3431
<i>Nithin Gopalakrishnan Nair, Rajeev Yasarla, Vishal M. Patel</i>	
Implicit Shape Biased Few-Shot Learning for 3D Object Generalization.....	3436
<i>Shitala Prasad, Yiqun Li, Dongyun Lin, Aiyuan Guo</i>	
A Fast Dejittering Approach for Line Scanning Microscopy .....	3441
<i>Landry Duguet, Julien Calve, Cyril Cauchois, Pierre Weiss</i>	
Early Pedestrian Intent Prediction Via Features Estimation .....	3446
<i>Nada Osman, Enrico Cancelli, Guglielmo Camporese, Pasquale Coscia, Lamberto Ballan</i>	
Sub-Aperture Feature Adaptation in Single Image Super-Resolution Model for Light Field Imaging .....	3451
<i>Aupendu Kar, Suresh Nehra, Jayanta Mukhopadhyay, Prabir Kumar Biswas</i>	
Statistical Analysis of Inter Coding in VVC Test Model (VTM) .....	3456
<i>Yiqun Liu, Mohsen Abdoli, Thomas Guionnet, Christine Guillemot, Aline Roumy</i>	
Multi-Latent GAN Inversion for Unsupervised 3D Shape Completion .....	3460
<i>Krishnendu Ghosh, Aupendu Kar, Saumik Bhattacharya, Debashis Sen, Prabir Kumar Biswas</i>	
Fusing Global and Local Features for Generalized AI-Synthesized Image Detection .....	3465
<i>Yan Ju, Shan Jia, Lipeng Ke, Hongfei Xue, Koki Nagano, Siwei Lyu</i>	
Transformers for Workout Video Segmentation.....	3470
<i>Bruno Ferreira, Paulo Menezes, Jorge Batista</i>	
Diagnosing Autism Spectrum Disorder Using Ensemble 3D-CNN: A Preliminary Study.....	3480
<i>Jingsheng Deng, Md Rakibul Hasan, Minhaz Mahmud, Md Mahbub Hasan, Khandaker Asif Ahmed, Md Zakir Hossain</i>	

Transformer Based Self-Context Aware Prediction for Few-Shot Anomaly Detection in Videos.....	3485
<i>Gargi V. Pillai, Ashish Verma, Debashis Sen</i>	
A Patch-Based Approach for Artistic Style Transfer Via Constrained Multi-Scale Image Matching.....	3490
<i>Benjamin Samuth, David Tschumperlé, Julien Rabin</i>	
Topologically-Consistent Magnitude Pruning for Very Lightweight Graph Convolutional Networks.....	3495
<i>Hichem Sahbi</i>	
Rethinking Unsupervised Neural Superpixel Segmentation.....	3500
<i>Moshe Eliasof, Nir Ben Zikri, Eran Treister</i>	
Efficient Feature Compression for the Object Tracking Task.....	3505
<i>Robert Henzel, Kiran Misra, Tianying Ji</i>	
Ultra-Low Bitrate Video Conferencing Using Deep Image Animation.....	3515
<i>Goluck Konuko, Giuseppe Valenzise, Stéphane Lathuilière</i>	
PCA Event-Based Optical Flow: A Fast and Accurate 2D Motion Estimation.....	3521
<i>Mahmoud Z. Khairallah, Fabien Bonardi, David Roussel, Samia Bouchafa</i>	
Intra Prediction of Regular and Near-Regular Textures Via Graph-Based Inpainting.....	3526
<i>Wen-Yang Lu, Eduardo Pavez, Antonio Ortega, Debargha Mukherjee, Onur Guleryuz, Keng-Shih Lu</i>	
Task-Aware Few-Shot Visual Classification with Improved Self-Supervised Metric Learning.....	3531
<i>Chia-Sheng Cheng, Hao-Chiang Shao, Chia-Wen Lin</i>	
Improved Hard Example Mining Approach for Single Shot Object Detectors .....	3536
<i>Aybora Köksal, Önder Tuzcuoglu, Kutalmis Gökalp Ince, Yoldas Ataseven, A. Aydin Alatan</i>	
History Dependent Significance Coding for Incremental Neural Network Compression.....	3541
<i>Gerhard Tech, Paul Haase, Daniel Becking, Heiner Kirchhoffer, Karsten Müller, Jonathan Pfaff, Heiko Schwarz, Wojciech Samek, Detlev Marpe, Thomas Wiegand</i>	
Deep Visual Place Recognition for Waterborne Domains .....	3546
<i>Luke Thomas, Michael Edwards, Austin Capsey, Alma Rahat, Matt Roach</i>	
Optics Lens Design for Privacy-Preserving Scene Captioning .....	3551
<i>Paula Arguello, Jhon Lopez, Carlos Hinojosa, Henry Arguello</i>	
GM-RF: An AV1 Intra-Frame Fast Decision Based on Random Forest.....	3556
<i>Pablo Rosa, Daniel Palomino, Marcelo Porto, Luciano Agostini</i>	
A Novel System for Deep Contour Classifiers Certification Under Filtering Attacks.....	3561
<i>Rania Khalsi, Imen Smati, Mallek Mziou Sallami, Faouzi Ghorbel</i>	
Image Fusion Transformer .....	3566
<i>VS Vibashan, Jeya Maria Jose Valanarasu, Poojan Oza, Vishal M. Patel</i>	
Unbiased Validation of the Algorithms for Automatic Needle Localization in Ultrasound-Guided Breast Biopsies .....	3571
<i>Agata M. Wijata, Jakub Nalepa</i>	
Adversarial Training of Anti-Distilled Neural Network with Semantic Regulation of Class Confidence.....	3576
<i>Zi Wang, Chengcheng Li, Husheng Li</i>	

WiFi-Based Spatiotemporal Human Action Perception .....	3581
<i>Yanling Hao, Zhiyuan Shi, Yuanwei Liu</i>	
Creating 3D Gramian Angular Field Representations for Higher Performance Energy Data Classification .....	3586
<i>Abdullah Alsalemi, Abbas Amira, Hossein Malekmohamadi, Kegong Diao</i>	
Learning Hetero-Synaptic Delays for Motion Detection in a Single Layer of Spiking Neurons .....	3591
<i>Antoine Grimaldi, Laurent U Perrinet</i>	
Severity Classification in Cases of Collagen VI-Related Myopathy with Convolutional Neural Networks and Handcrafted Texture Features.....	3596
<i>Rafael Rodrigues, Susana Quijano-Roy, Robert-Yves Carlier, Antonio M. G. Pinheiro</i>	
The Lifecycle of a Neural Network in the Wild: A Multiple Instance Learning Study on Cancer Detection from Breast Biopsies Imaged with Novel Technique.....	3601
<i>D. Mandache, E. Benoit A La Guillaume, Y. Badachi, J.-C. Olivo-Marin, V. Meas-Yedid</i>	
Mixture of Teacher Experts for Source-Free Domain Adaptive Object Detection .....	3606
<i>VS Vibashan, Poojan Oza, Vishwanath A. Sindagi, Vishal M. Patel</i>	
RAPID: A Single Stage Pruning Framework.....	3611
<i>Ankit Sharma, Hassan Foroosh</i>	
Low-Complexity Multi-Type Tree Partitioning for Versatile Video Coding Based on Machine Learning .....	3616
<i>Matheus Lindino, Bruno Zatt, Mateus Grellert, Guilherme Correa</i>	
Unsupervised and Adaptive Perimeter Intrusion Detector.....	3621
<i>Devashish Lohani, Carlos Crispim-Junior, Quentin Barthélemy, Sarah Bertrand, Lionel Robinault, Laure Tougne Rodet</i>	
Learning to Jointly Segment the Liver, Lesions and Vessels from Partially Annotated Datasets.....	3626
<i>Omar Ali, Alexandre Bone, Marc-Michel Rohe, Eric Vibert, Irene Vignon-Clementel</i>	
Advanced Motion Vector Difference Coding Beyond AV1 .....	3631
<i>Liang Zhao, Xin Zhao, Shan Liu</i>	
Simultaneous Learning and Compression for Convolution Neural Networks.....	3636
<i>Muhammad Tayyab, Abhijit Mahalanobis</i>	
Linear Discriminant Analysis Metric Learning Using Siamese Neural Networks .....	3641
<i>Abin Jose, Qi Mei, Dennis Eschweiler, Ina Laube, Johannes Stegmaier</i>	
Towards Model Quantization on the Resilience Against Membership Inference Attacks.....	3646
<i>Charles Kowalski, Azadeh Famili, Yingjie Lao</i>	
Cluster-Based 3D Keypoint Detection for Category-Agnostic 6D Pose Tracking .....	3651
<i>Long Tian, Andrea Cavallaro, Changjae Oh</i>	
VLCAP: Vision-Language with Contrastive Learning for Coherent Video Paragraph Captioning.....	3656
<i>Kashu Yamazaki, Sang Truong, Khoa Vo, Michael Kidd, Chase Rainwater, Khoa Luu, Ngan Le</i>	
HCIL: Hierarchical Class Incremental Learning for Longline Fishing Visual Monitoring .....	3662
<i>Jie Mei, Suzanne Romain, Craig Rose, Kelsey Magrane, Jenq-Neng Hwang</i>	

Hybrid Model-Based / Data-Driven Graph Transform for Image Coding.....	3667
<i>Saghar Bagheri, Tam Thuc Do, Gene Cheung, Antonio Ortega</i>	
A Cervix Detection Driven Deep Learning Approach for Cow Heat Analysis from Endoscopic Images .....	3672
<i>Ruiwen He, Halim Benhabiles, Feryal Windal, Gaël Even, Christophe Audebert, Dominique Collard, Abdelmalik Taleb-Ahmed</i>	
FL0C: Fast L0 Cut Pursuit for Estimation of Piecewise Constant Functions.....	3677
<i>Andreas Görlitz, Michael Möller, Andreas Kolb</i>	
A Temporally Coherent Background Model for DIBR View Synthesis .....	3682
<i>Adriano Q. De Oliveira, Thiago L. T. Da Silveira, Marcelo Walter, Claudio R. Jung</i>	
Flow-Path Fitting from Images with Fourier Basis for River Health Assessment.....	3687
<i>Yuki Takahashi, Shogo Muramatsu, Hiroyasu Yasuda, Kiyoshi Hayasaka, Yu Otake</i>	
Deep-Based Quality Assessment of Medical Images Through Domain Adaptation.....	3692
<i>Marouane Tliba, Aymen Sekhri, Mohamed Amine Kerkouri, Aladine Chetouani</i>	
What if Image Self-Similarity Can Be Better Exploited in Data Fidelity Terms?.....	3697
<i>Ivan Pereira-Sánchez, Julia Navarro, Joan Duran</i>	
Representation Learning Optimization for 3D Point Cloud Quality Assessment Without Reference .....	3702
<i>Marouane Tliba, Aladine Chetouani, Giuseppe Valenzise, Frédéric Dufaux</i>	
Non-Separable Filtering with Side-Information and Contextually-Designed Filters for Next Generation Video Codecs .....	3707
<i>Onur G. Guleryuz, Debargha Mukherjee, Yue Chen, Keng-Shih Lu, Urvang Joshi</i>	
Latent Preserving Generative Adversarial Network for Imbalance Classification .....	3712
<i>Tanmoy Dam, Md Meftahul Ferdaus, Mahardhika Pratama, Sreenatha G. Anavatti, Senthilnath Jayavelu, Hussein Abbass</i>	
Adversarial Label-Poisoning Attacks and Defense for General Multi-Class Models Based on Synthetic Reduced Nearest Neighbor.....	3717
<i>Pooya Tavallali, Vahid Behzadan, Azar Alizadeh, Aditya Ranganath, Mukesh Singhal</i>	
Forward Error Correction Applied to JPEG-XS Codestreams .....	3723
<i>Antoine Legrand, Benoît Macq, Christophe De Vleeschouwer</i>	
Batch Size Reconstruction–Distribution Trade–Off in Kernel Based Generative Autoencoders .....	3728
<i>Szymon Knop, Przemyslaw Spurek, Marcin Mazur, Jacek Tabor, Igor Podolak</i>	
A Low-Rank Tensor Bayesian Filter Framework for Multi-Modal Analysis .....	3738
<i>Wenbin Yang, Zijia Wang, Jiacheng Ni, Qiang Chen, Zhen Jia</i>	
Automatic Fuzzy Graph Construction for Interpretable Image Classification .....	3743
<i>Georgia Sovatzidi, Michael D. Vasilakakis, Dimitris K. Iakovidis</i>	
MR. TOMP : Inversion of the Modulo Radon Transform (MRT) Via Orthogonal Matching Pursuit (OMP).....	3748
<i>Matthias Beckmann, Ayush Bhandari</i>	
Supervising Remote Sensing Change Detection Models with 3D Surface Semantics .....	3753
<i>Isaac Corley, Peyman Najafirad</i>	

A Database of Visual Color Differences of Modern Smartphone Photography.....	3758
<i>Keshuo Xu, Zhihua Wang, Yang Yang, Jianlei Dong, Lihao Xu, Yuming Fang, Kede Ma</i>	
Local and Global Fusion Network for Learned Image Compression .....	3763
<i>Gai Zhang, Xinfeng Zhang, Shuyuan Zhu</i>	
Bi-Directional Inter-Prediction for Geometry-Based Point Cloud Compression .....	3768
<i>Yingzhan Xu, Kai Zhang, Wenyi Wang, Li Zhang</i>	
Low SNR Multiframe Registration for Cubesats .....	3773
<i>Evan Widloski, Farzad Kamalabadi</i>	
Person Re-Identification in Panoramic Views Based on Bayesian Transformers.....	3778
<i>Wenfeng Song, Xinyu Zhang, Ying Ye, Yang Gao, Yifan Guo, Aimin Hao, Xia Hou</i>	
Grad-Cam Aware Supervised Attention for Visual Question Answering for Post-Disaster Damage Assessment .....	3783
<i>Argho Sarkar, Maryam Rahnemoonfar</i>	
An Enhanced Transferable Adversarial Attack of Scale-Invariant Methods .....	3788
<i>Zhi Lin, Anjie Peng, Rong Wei, Wenxin Yu, Hui Zeng</i>	
MONet: Multi-Scale Overlap Network for Duplication Detection in Biomedical Images.....	3793
<i>Ekraam Sabir, Soumyaroop Nandi, Wael Abdalmageed, Prem Natarajan</i>	
Gaussian Distributed Graph Constrained Multi-Modal Gaussian Process Latent Variable Model for Ordinal Labeled Data .....	3798
<i>Keisuke Maeda, Takahiro Ogawa, Miki Haseyama</i>	
Efficient CNN-Based Super Resolution Algorithms for Mmwave Mobile Radar Imaging.....	3803
<i>Christos Vasileiou, Josiah Smith, Shiva Thiagarajan, Matthew Nigh, Yiorgos Makris, Murat Torlak</i>	
HDR-TOF: HDR Time-Of-Flight Imaging Via Modulo Acquisition .....	3808
<i>Gal Shtendel, Ayush Bhandari</i>	
Self-Supervised Pretraining for Deep Hash-Based Image Retrieval .....	3813
<i>Haeyoon Yang, Young Kyun Jang, Isaac Kang, Nam Ik Cho</i>	
Recurrent Attentive Decomposition Network for Low-Light Image Enhancement .....	3818
<i>Haoyu Gao, Lin Zhang, Shunli Zhang</i>	
Few-Shot Personalized Saliency Prediction with Similarity of Gaze Tendency Using Object-Based Structural Information .....	3823
<i>Yuya Moroto, Keisuke Maeda, Takahiro Ogawa, Miki Haseyama</i>	
Human-Centric Image Retrieval with Gaze-Based Image Captioning .....	3828
<i>Yuhu Feng, Keisuke Maeda, Takahiro Ogawa, Miki Haseyama</i>	
Cu-Net: Towards Continuous Multi-Class Contour Detection for Retinal Layer Segmentation in Oct Images.....	3833
<i>Ashuta Bhattacharai, Chandra Kambhamettu, Jing Jin</i>	
Visual Sentiment Prediction Using Cross-Way Few-Shot Learning Based on Knowledge Distillation .....	3838
<i>Yingrui Ye, Yuya Moroto, Keisuke Maeda, Takahiro Ogawa, Miki Haseyama</i>	

Neuro-Inspired Deep Neural Networks with Sparse, Strong Activations.....	3843
<i>Metehan Cekic, Can Bakiskan, Upamanyu Madhow</i>	
Transform Skip Inspired End-To-End Compression for Screen Content Image.....	3848
<i>Meng Wang, Kai Zhang, Li Zhang, Yaojun Wu, Yue Li, Junru Li, Shiqi Wang</i>	
Knowledge Distillation for Multi-Target Domain Adaptation in Real-Time Person Re-Identification .....	3853
<i>Félix Remigereau, Djebri Mekhazni, Sajjad Abdoli, Le Thanh Nguyen-Meidine, Rafael M. O. Cruz, Eric Granger</i>	
Earthquake Location and Magnitude Estimation with Graph Neural Networks .....	3858
<i>Ian W. McBrearty, Gregory C. Beroza</i>	
Simurgh: A Framework for Cad-Driven Deep Learning Based X-Ray CT Reconstruction .....	3863
<i>Amirkoushyar Ziabari, Singanallur Venkatakrishnan, Abhishek Dubey, Alex Lisovich, Paul Brackman, Curtis Frederick, Pradeep Bhattad, Philip Bingham, Alex Plotkowski, Ryan Dehoff, Vincent Paquit</i>	
EGNet: A Novel Edge Guided Network for Instance Segmentation .....	3868
<i>Kaiwen Du, Xiao Wang, Yan Yan, Yang Lu, Hanzi Wang</i>	
Depthformer: Multiscale Vision Transformer for Monocular Depth Estimation with Global Local Information Fusion .....	3873
<i>Ashutosh Agarwal, Chetan Arora</i>	
Half Wavelet Attention on M-Net+ for Low-Light Image Enhancement .....	3878
<i>Chi-Mao Fan, Tsung-Jung Liu, Kuan-Hsien Liu</i>	
Hadamard-Coded Supervised Discrete Hashing on Complex and Quaternion Domain.....	3883
<i>Manabu Sueyasu, Seisuke Kyochi, Gou Koutaki</i>	
Panoptic-Deeplab-DVA: Improving Panoptic Deeplab with Dual Value Attention and Instance Boundary Aware Regression.....	3888
<i>Qingfeng Liu, Mostafa El-Khamy</i>	
Disentangled Sequential Autoencoder with Local Consistency for Infectious Keratitis Diagnosis .....	3893
<i>Yuxuan Si, Zhengqing Fang, Kun Kuang, Zhengxing Huang, Yu-Feng Yao, Fei Wu</i>	
Latent Vector Prototypes Guided Conditional Face Synthesis .....	3898
<i>Qiyu Wei, Xulei Yang, Tong Sang, Huijiao Wang, Zou Xiaofeng, Cheng Zhongyao, Zhao Ziyuan, Zeng Zeng</i>	
Video-Grounded Dialogues with Joint Video and Image Training .....	3903
<i>Hangyu Zhang, Yingming Li, Zhongfei Zhang</i>	
Patient Aware Active Learning for Fine-Grained OCT Classification.....	3908
<i>Yash-Yee Logan, Ryan Benkert, Ahmad Mustafa, Ghassan Alregib</i>	
Attention-Based Neural Network for Ill-Exposed Image Correction .....	3913
<i>Lucas R. V. Messias, Paulo L. J. Drews, Silvia S. C. Botelho</i>	
Image Enhancement for Improved Visibility of Digital Displays Under the Sunlight .....	3918
<i>Heejin Lee, Junmin Lee, Seha Jeong, Seunghyun Lee, Seungwan Yu, Junho Heo, Byung Cheol Song</i>	

MRS-XNet: An Explainable One-Dimensional Deep Neural Network for Magnetic Spectroscopic Data Classification.....	3923
<i>Anouar Kherchouche, Olfa Ben-Ahmed, Carole Guillevin, Benoit Tremblais, Adrien Julian, Rémy Guillevin</i>	
COFENet: Co-Feature Neural Network Model for Fine-Grained Image Classification .....	3928
<i>Bor-Shiun Wang, Jun-Wei Hsieh, Yi-Kuan Hsieh, Ping-Yang Chen</i>	
Heart Rate Estimation in Intense Exercise Videos .....	3933
<i>Y. Napoleon, A. Marwade, N. Tomen, P. Alkemade, T. Eijsvogels, J. C. Van Gemert</i>	
Image Segmentation and Recognition for Multi-Class Chinese Food.....	3938
<i>Yuxiang Liang, Jiangfeng Li, Qinpei Zhao, Weixiong Rao, Chenxi Zhang, Congrong Wang</i>	
HARP: Autoregressive Latent Video Prediction with High-Fidelity Image Generator .....	3943
<i>Younggyo Seo, Kimin Lee, Fangchen Liu, Stephen James, Pieter Abbeel</i>	
Haar Wavelet-Based Attention Network for Image Dehazing .....	3948
<i>Sumit Laha, Hassan Foroosh</i>	
Vessel Segmentation and Dirt/Reflection Detection for Retinal Fundus Photographs .....	3953
<i>Meng-Hsuan Chang, Chih-Ying Chen, Chih-Han Yu, Hao-Chiang Shao, Chia-Wen Lin</i>	
Neural Network Fragile Watermarking with No Model Performance Degradation .....	3958
<i>Zhaoxia Yin, Heng Yin, Xinpeng Zhang</i>	
3D Head Pose Estimation Based on Graph Convolutional Network from a Single RGB Image .....	3963
<i>Wen-Nung Lie, Monyneath Yim, Lee Aing, Jui-Chiu Chiang</i>	
EANET: Efficient Attention-Augmented Network for Real-Time Semantic Segmentation.....	3968
<i>Jianan Dong, Jichang Guo, Huihui Yue, Huan Gao</i>	
Automating Detection of Papilledema in Pediatric Fundus Images with Explainable Machine Learning .....	3973
<i>Kleanthis Avramidis, Mohammad Rostami, Melinda Chang, Shrikanth Narayanan</i>	
Channel-Wise Bit Allocation for Deep Visual Feature Quantization.....	3978
<i>Wei Wang, Zhuo Chen, Zhe Wang, Jie Lin, Long Xu, Weisi Lin</i>	
For the Sake of Privacy: Skeleton-Based Salient Behavior Recognition .....	3983
<i>Thomas Golda, Johanna Thiemich, Mickael Cormier, Jürgen Beyerer</i>	
Deep Incremental Optical Flow Coding for Learned Video Compression .....	3988
<i>Chih-Peng Chang, Peng-Yu Chen, Yung-Han Ho, Wen-Hsiao Peng</i>	
Information-Growth Swin Transformer Network for Image Super-Resolution.....	3993
<i>Yantao Ji, Peilin Jiang, Jingang Shi, Yu Guo, Ruiteng Zhang, Fei Wang</i>	
Bina-Rep Event Frames: A Simple and Effective Representation for Event-Based Cameras .....	3998
<i>Sami Barchid, José Mennesson, Chaabane Djéraba</i>	
Investigating Explainable Artificial Intelligence for MRI-Based Classification of Dementia: A New Stability Criterion for Explainable Methods.....	4003
<i>Ahmed Salih, Ilaria Boscolo Galazzo, Federica Cruciani, Lorenza Brusini, Petia Radeva</i>	
An Open Dataset for Video Coding for Machines Standardization.....	4008
<i>Wen Gao, Xiaozhong Xu, Matthew Qin, Shan Liu</i>	

On the Accuracy of Open Video Quality Metrics for Local Decision in AV1 Video Codec.....	4013
<i>Andréas Pastor, Lukáš Krasula, Xiaoqing Zhu, Zhi Li, Patrick Le Callet</i>	
Orthonormal Convolutions for the Rotation Based Iterative Gaussianization.....	4018
<i>Valero Laparra, Alexander Hepburn, J. Emmanuel Johnson, Jesús Malo</i>	
Intra-Modal Constraint Loss for Image-Text Retrieval .....	4023
<i>Jianan Chen, Lu Zhang, Qiong Wang, Cong Bai, Kidiyo Kpalma</i>	
Unsupervised Generative Variational Continual Learning .....	4028
<i>Liu Guimeng, Guo Yang, Cheryl Wong Sze Yin, Ponnuthurai Nagartnam Suganathan, Ramasamy Savitha</i>	
Adaptive Local Implicit Image Function for Arbitrary-Scale Super-Resolution.....	4033
<i>Hongwei Li, Tao Dai, Yiming Li, Xueyi Zou, Shu-Tao Xia</i>	
Meta-BNS for Adversarial Data-Free Quantization .....	4038
<i>Siming Fu, Hualiang Wang, Yuchen Cao, Haoji Hu, Bo Peng, Wenming Tan, Tingqun Ye</i>	
Transformer-Based Approach for Document Layout Understanding .....	4043
<i>Huichen Yang, William Hsu</i>	
Representation Learning Using Rank Loss for Robust Neurosurgical Skills Evaluation.....	4048
<i>Britty Baby, Mustafa Chasmai, Tamajit Banerjee, Ashish Suri, Subhashis Banerjee, Chetan Arora</i>	
3D Geometry Design Via End-To-End Optimization for Land Seismic Acquisition .....	4053
<i>Alejandra Hernandez-Rojas, Henry Arguello</i>	
High-Resolution NIR Prediction from RGB Images: Application to Plant Phenotyping .....	4058
<i>Ankit Shukla, Avinash Upadhyay, Manoj Sharma, Viswanathan Chinnusamy, Sudhir Kumar</i>	
Efficient Video Enhancement Transformer .....	4068
<i>Florin Vasluianu, Radu Timofte</i>	
Unsupervised Video Segmentation Algorithms Based on Flexibly Regularized Mixture Models .....	4073
<i>Claire Launay, Jonathan Vacher, Ruben Coen-Cagli</i>	
Interpretable Concept-Based Prototypical Networks for Few-Shot Learning .....	4078
<i>Mohammad Reza Zarei, Majid Komeili</i>	
Ganzzle: Reframing Jigsaw Puzzle Solving as a Retrieval Task Using a Generative Mental Image .....	4083
<i>Davide Talon, Alessio Del Bue, Stuart James</i>	
Learning Trajectory-Conditioned Relations to Predict Pedestrian Crossing Behavior.....	4088
<i>Chen Zhou, Ghassan Alregib, Armin Parchami, Kunjan Singh</i>	
Enhancing Underwater Image Using Degradation Adaptive Adversarial Network.....	4093
<i>Lujun Zhai, Yonghui Wang, Suxia Cui, Yu Zhou</i>	
PGUNeT: Covid-19 CT Image Segmentation Using GAN and Feature Pyramid .....	4098
<i>Xin Li, Qirui Niu, Chunyu Zhang, Hui Ding, Yuanyuan Shang</i>	
A No-Reference Measure for Uneven Illumination Assessment on Laparoscopic Images .....	4103
<i>Tan-Sy Nguyen, John Chaussard, Marie Luong, Hatem Zaag, Azeddine Beghdadi</i>	



Component-Based Transformation for Person Image Generation .....	4108
<i>Wen-Jiin Tsai, Po-Hsiang Chen</i>	
Investigating Normalization Methods for CNN-Based Image Quality Assessment .....	4113
<i>Abderrezzaq Sendjasni, David Traparic, Mohamed-Chaker Larabi</i>	
Gated Convolutional Network for Metal Artifact Reduction in Computed Tomography Images .....	4118
<i>Sutanu Bera, Prabir Kumar Biswas</i>	
Reference-Based Blind Super-Resolution Kernel Estimation .....	4123
<i>Mehmet Yamac, Aakif Nawaz, Baran Ataman</i>	
One-Cycle Pruning: Pruning Convnets with Tight Training Budget .....	4128
<i>Nathan Hubens, Matei Mancas, Bernard Gosselin, Marius Preda, Titus Zaharia</i>	
Transfer Learning from Vision Transformers Or ConvNets for 360-Degree Images Quality Assessmentf .....	4133
<i>Abderrezzaq Sendjasni, Mohamed-Chaker Larabi</i>	
Spline Human Motion Recovery .....	4138
<i>Antonio Agudo</i>	
PET/CT Co-Segmentation Based on Hybrid Active Contour Model .....	4143
<i>Chuangbo Jiang, Shenhai Zheng, Laquan Li</i>	
On the Limits of Perceptual Quality Measures for Enhanced Underwater Images .....	4148
<i>Chau Yi Li, Andrea Cavallaro</i>	
Multi-Step Test-Time Adaptation with Entropy Minimization and Pseudo-Labeling .....	4153
<i>Hiroaki Kingetsu, Kenichi Kobayashi, Yoshihiro Okawa, Yasuto Yokota, Katsuhito Nakazawa</i>	
Image Quantization Towards Data Reduction: Robustness Analysis for SLAM Methods on Embedded Platforms .....	4158
<i>Quentin Picard, Stephane Chevobbe, Mehdi Darouich, Jean-Yves Didier</i>	
Width-Wise Parameter Sharing for Multi-Domain GAN Learning .....	4163
<i>Ryan Webster, Julien Rabin, Loïc Simon, Frédéric Jurie</i>	
Class Activation Map Refinement Via Semantic Affinity Exploration for Weakly Supervised Object Detection .....	4168
<i>Zhendong Wang, Zhenyuan Chen, Chen Gong</i>	
Revisiting Artistic Style Transfer for Data Augmentation in a Real-Case Scenario .....	4178
<i>Stefano D'Angelo, Frédéric Precioso, Fabien Gandon</i>	
DAT: Domain Adaptive Transformer for Domain Adaptive Semantic Segmentation .....	4183
<i>Jinyoung Park, Minseok Son, Sumin Lee, Changick Kim</i>	
Compression of User Generated Content Using Denoised References .....	4188
<i>Eduardo Pavez, Enrique Perez, Xin Xiong, Antonio Ortega, Balu Adsumilli</i>	
Ques-To-Visual Guided Visual Question Answering.....	4193
<i>Xiangyu Wu, Jianfeng Lu, Zhuanfeng Li, Fengchao Xiong</i>	
Multi-Frame Video Prediction with Learnable Motion Encodings .....	4198
<i>Rakesh Jasti, Varun Jampani, Deqing Sun, Ming-Hsuan Yang</i>	

Differential Pseudo-Image for Skeleton-Based Dynamic Gesture Recognition.....	4203
<i>Tomasz Kapuscinski, Mateusz Mis</i>	
CDANet: Channel Split Dual Attention Based CNN for Brain Tumor Classification in MR Images.....	4208
<i>Tapas Kumar Dutta, Deepak Ranjan Nayak</i>	
On the Benefit of Parameter-Driven Approaches for the Modeling and the Prediction of Satisfied User Ratio for Compressed Video .....	4213
<i>Jingwen Zhu, Patrick Le Callet, Anne-Flore Perrin, Sriram Sethuraman, Kumar Rahul</i>	
Yolo-SG: Saliency-Guided Detection of Small Objects in Medical Images.....	4218
<i>Rong Han, Xiaohong Liu, Ting Chen</i>	
Dual Path Cross-Scale Attention Network for Image Inpainting.....	4223
<i>Yuan Yuan Ni, Wengang Cheng</i>	
Cross Domain Low-Dose CT Image Denoising with Semantic Information Alignment.....	4228
<i>Jiaxin Huang, Kecheng Chen, Jiayu Sun, Xiaorong Pu, Yazhou Ren</i>	
Depth is All You Need: Single-Stage Weakly Supervised Semantic Segmentation from Image-Level Supervision.....	4233
<i>Mustafa Ergül, Aydin Alatan</i>	
Meta-Learned Initialization for 3D Human Recovery.....	4238
<i>Mira Kim, Youngjo Min, Jiwon Kim, Seungryong Kim</i>	
Robust Calibration-Marker and Laser-Line Detection for Underwater 3D Shape Reconstruction by Deep Neural Network.....	4243
<i>Hanbin Wang, Takafumi Iwaguchi, Hiroshi Kawasaki</i>	
ViTransPad: Video Transformer Using Convolution and Self-Attention for Face Presentation Attack Detection .....	4248
<i>Zuheng Ming, Zitong Yu, Musab Al-Ghadi, Muriel Visani, Muhammad Muzzamil Luqman, Jean-Christophe Burie</i>	
Localization and Classification of Parasitic Eggs in Microscopic Images Using an EfficientDet Detector .....	4253
<i>Nouar Aldahoul, Hezerul Abdul Karim, Shaira Limson Kee, Myles Joshua Toledo Tan</i>	
A Robust Ensemble Model for Parasitic Egg Detection and Classification .....	4258
<i>Yuqi Wang, Zhiqiang He, Shenghui Huang, Huabin Du</i>	
AI4EO Hyperview: A SpectralNet3D and Rnnplus Approach for Sustainable Soil Parameter Estimation on Hyperspectral Image Data .....	4263
<i>Claudius Zelenka, Andreas Lohrer, Mirjam Bayer, Peer Kröger</i>	
The Hyperview Challenge: Estimating Soil Parameters from Hyperspectral Images .....	4268
<i>Jakub Nalepa, Bertrand Le Saux, Nicolas Longépé, Lukasz Tulczyjew, Michal Myller, Michal Kawulok, Krzysztof Smykala, Michal Gumiela</i>	
Multitask Learning Via Pseudo-Label Generation and Ensemble Prediction for Parasitic Egg Cell Detection: IEEE ICIP Challenge 2022 .....	4273
<i>Zaw Htet Aung, Kittinan Srithaworn, Titipat Achakulvisut</i>	
Surveillance Video Quality Assessment Based on Quality Related Retraining.....	4278
<i>Zicheng Zhang, Wei Lu, Wei Sun, Xiongkuo Min, Tao Wang, Guangtao Zhai</i>	

Parasitic Egg Detection with a Deep Learning Ensemble .....	4283
<i>Jesus Ruiz-Santaquiteria, Anibal Pedraza, Noelia Vallez, Alberto Velasco</i>	
HyperDeep: Comparison of AI-Based Methods for Predicting Chemical Components in Hyperspectral Images .....	4287
<i>Alberto Velasco-Mata, Noelia Vallez, Jesus Ruiz-Santaquiteria, Anibal Pedraza, Oscar Deniz, Gloria Bueno</i>	
ICIP 2022 Challenge: PEDCMI, TOOD Enhanced by Slicing-Aided Fine-Tuning and Inference .....	4292
<i>Alzbeta Tureckova, Tomas Turecek, Zuzana Kominkova Oplatkova</i>	
Predicting Soil Properties from Hyperspectral Satellite Images.....	4296
<i>Ridvan Salih Kuzu, Frauke Albrecht, Caroline Arnold, Roshni Kamath, Kai Konen</i>	
Parasitic Egg Detection and Classification with Transformer-Based Architectures .....	4301
<i>Anibal Pedraza, Jesus Ruiz-Santaquiteria, Oscar Deniz, Gloria Bueno</i>	
ICIP 2022 Challenge on Parasitic Egg Detection and Classification in Microscopic Images: Dataset, Methods and Results.....	4306
<i>Nantheera Anantrasirichai, Thanarat H. Chalidabhongse, Duangdao Palasuwan, Korranat Naruenatthanaset, Thananop Kobchaisawat, Nuntiporn Nunthanasup, Kanyarat Boonpeng, Xudong Ma, Alin Achim</i>	
Parasitic Egg Detection and Classification by Utilizing the YOLO Algorithm with Deep Latent Space Image Restoration and GrabCut Augmentation .....	4311
<i>Yohanssen Pratama, Yuki Fujimura, Takuya Funatomi, Yasuhiro Mukaigawa</i>	

## **Author Index**