Haibin Ling

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Research Interests

Computer Vision, Biomedical Imaging, Machine Learning, Augmented and Virtual Reality, Human Computer Interaction

EDUCATION

Ph.D., Computer Science, University of Maryland, College Park, MD, USA, 2006

- Dissertation: "Techniques for Image Retrieval: Deformation Insensitivity and Automatic Thumbnail Cropping"
- Advisor: Professor David W. Jacobs

M.S., Computer Science, Peking University, Beijing, China, 2000

- Thesis: "Methods for Geographic Data Rectification"
- Advisor: Professor Kunqiu Chen

B.S., Mathematics, Peking University, Beijing, China, 1997

- Major in Probability and Statistics, Minor in Computer Software

MAJOR EMPLOYMENT HISTORY

•	SUNY Empire Innovation Professor, Stony Brook University Department of Computer Science	Stony Brook, NY USA 2019 –
•	Adjunct Professor, Temple University Associate Professor Assistant Professor Department of Computer and Information Sciences	Philadelphia, PA USA, 2019 – (on leave 2015-2017) 2014-2019 2008-2014
•	Research Scientist, Siemens Corporate Research	Princeton, NJ USA, 2007-2008
•	Postdoc, University of California Los Angeles Lo Supervisor: Professor Stefano Soatto	os Angeles, CA USA, 2006-2007
•	Summer Intern, Siemens Corporate Research Mentor: Dr. Kazunori Okada	Princeton, NJ USA, 2005
•	Summer Intern, Microsoft Corporation	Redmond, WA USA, 2002
•	Assistant Researcher, Microsoft Research Asia	Beijing, China, 2000-2001

HONORS AND AWARDS

- Fellow of IEEE, 2023
- TVCG Best Journal Paper Award, IEEE VR 2021
- Yahoo Faculty Research and Engagement Award, 2019
- Amazon Machine Learning Research Award, 2019

- NSF CAREER Award, 2014
- Best Student Paper, ACM Symp. on User Interface Software and Technology (UIST), 2003

PUBLICATIONS

Google Scholar profile: https://scholar.google.com/citations?hl=en&user=v3w4IYUAAAAJ

Journal Articles

- 1. Maryam Ajami, Pavani Tripathi, Haibin Ling, and Mina Mahdian. "Automatic detection and localization of cervical carotid artery calcifications in dental cone beam computed tomography (CBCT) studies using deep convolutional neural network." *Diagnostics*, accepted.
- Yingtian Pan, Kicheon Park, Jiaxing Ren, Nora D. Volkow, Haibin Ling, Alan P. Koretsky, and Congwu Du. "Dynamic 3D imaging of cerebral blood flow in awake mice using self-supervised-learning-enhanced optical coherence Doppler tomography." *Communications Biology*, 6(1):298, 2023.
- 3. He Liu, Tao Wang, Yidong Li, Congyan Lang, Yi Jin, and Haibin Ling. "Joint Graph Learning and Matching for Semantic Feature Correspondence." *Pattern Recognition*, 134:109059, 2023.
- 4. Tingting Liang, Xiaojie Chu, Yudong Liu, Yongtao Wang, Zhi Tang, Wei Chu, Jingdong Chen, and Haibin Ling, "CBNet: A Composite Backbone Network Architecture for Object Detection," *IEEE Trans. on Image Processing (T-IP)*, 31:6893-6906, 2022.
- 5. Huabing Zhou, Jilei Hou, Yanduo Zhang, Jiayi Ma, and Haibin Ling, "Unified Gradientand Intensity-discriminator Generative Adversarial Network for Image Fusion." *Information Fusion*, 88:184-201, 2022.
- Hongyuan Yu, Houwen Peng, Hao Du, Jianlong Fu, Yan Huang, Liang Wang, and Haibin Ling. "Cyclic Differentiable Architecture Search." *IEEE Trans. on Pattern Analysis and* Machine Intelligence (PAMI), 45(1):211-228, 2023.
- Tao Zhou, Huazhu Fu, Chen Gong, Ling Shao, Fatih Porikli, Haibin Ling, and Jianbing Shen. "Consistency and Diversity induced Human Motion Segmentation." *IEEE Trans. on Pattern Analysis and Machine Intelligence (PAMI)*, 45(1):197–210, 2023.
- 8. Chinhua Hsiao, Hexin Bai, Haibin Ling, and Jie Yang. "Radiographic identification of dental implant systems using artificial intelligence." *International Journal of Periodontics and Restorative Dentistry (IJPRD)*, 43(3):363-368, 2023.
- 9. Sarah Lehman, Semir Elezovikj, Haibin Ling, and Chiu C. Tan. "ARCHIE++: A Cloudenabled Framework for Conducting AR Usability Testing," *IEEE Trans. on Visualization and Computer Graphics (TVCG)*, 29(4):2102-2116, 2023.
- Huabing Zhou, Wei Wu, Yanduo Zhang, Jiayi Ma, and Haibin Ling, "Semantic-supervised Infrared and Visible Image Fusion via a Dual-discriminator Generative Adversarial Network." *IEEE Trans. on Multimedia (T-MM)*, 25:635-648, 2023.
- 11. Gongyang Li, Zhi Liu, Dan Zeng, Weisi Lin, and Haibin Ling. "Adjacent Context Coordination Network for Salient Object Detection in Optical Remote Sensing Images," *IEEE Trans.* on Cybernetics, 53(1):526-538, 2023.
- Dihan Zheng, Chenglong Bao, Zuoqiang Shi, Haibin Ling, and Kaisheng Ma. "Unsupervised Deep Learning Meets Chan-Vese Model." CSIAM Trans. on Applied Mathematics, 3(4):662-691, 2022.

- Aoxiang Fan, Jiayi Ma, Xingyu Jiang, and Haibin Ling. "Efficient Deterministic Search with Robust Loss Functions for Geometric Model Fitting." *IEEE Trans. on Pattern Analysis and Machine Intelligence (PAMI)*, 44(11):8212–8229, 2022.
- Pengfei Zhu, Longyin Wen, Dawei Du, Xiao Bian, Heng Fan, Qinghua Hu, Haibin Ling. "Detection and Tracking Meet Drones Challenge," *IEEE Trans. on Pattern Analysis and Machine Intelligence (PAMI)*, 44(11):7380–7399, 2022.
- Sarah Lehman, Kunal Kolhe, Abrar S. Alrumayh, Haibin Ling, and Chiu C. Tan. "Hidden in Plain Sight: Exploring Privacy Risks of Mobile Augmented Reality Applications." ACM Trans. on Privacy and Security (TOPS), 25(4):1-35, 2022.
- Gongyang Li, Zhi Liu, Weisi Lin, and Haibin Ling. "Lightweight Salient Object Detection in Optical Remote Sensing Images via Feature Correlation." *IEEE Trans. on Geoscience and Remote Sensing (T-GRS)*, 60:1-12, 2022.
- Hexin Bai, Peng Chu, Jeng-Yuan Tsai, Nathan Wilson, Xiaofeng Qian, Qimin Yan, and Haibin Ling. "Graph Neural Network for Hamiltonian-Based Material Property Prediction." *Neural Computing and Applications*, 34(6): 4625-4632, 2022.
- Gongyang Li, Zhi Liu, Weisi Lin, and Haibin Ling. "Multi-Content Complementation Network for Salient Object Detection in Optical Remote Sensing Images." *IEEE Trans. on Geo*science and Remote Sensing (T-GRS), 60:1-13, 2022.
- Ruyi Lian, Bingyao Huang, Liguo Wang, Qun Liu, Yuewei Lin, and Haibin Ling. "Endto-end orientation estimation from 2D cryo-EM images." Acta Crystallographica Section D -Structural Biology, 78(2):174-186, 2022.
- 20. Bingyao Huang, Tao Sun, and Haibin Ling. "End-to-end Full Projector Compensation," IEEE Trans. on Pattern Analysis and Machine Intelligence (PAMI), 44(6):2953-2967, 2022.
- 21. Wenguan Wang, Qiuxia Lai, Huazhu Fu, Jianbing Shen, Haibin Ling, and Ruigang Yang. "Salient Object Detection in the Deep Learning Era: An In-Depth Survey," *IEEE Trans. on Pattern Analysis and Machine Intelligence (PAMI)*, 44(6):3239-3259, 2022.
- Can Song, Jin Wu, Lei Zhu, Mei Zhang, and Haibin Ling. "Nighttime Road Scene Parsing by Unsupervised Domain Adaptation." *IEEE Trans. on Intelligent Transportation Systems* (*T-ITS*), 23(4):3244 - 3255, 2022.
- Jinxiu Liang, Jingwen Wang, Yuhui Quan, Tianyi Chen, Jiaying Liu, Haibin Ling, and Yong Xu, "Recurrent Exposure Generation for Low-Light Face Detection." *IEEE Trans. on Multimedia* (T-MM), 22:1609-1621, 2022.
- 24. Junyi Feng, Songyuan Li, Xi Li, Fei Wu, Qi Tian, Ming-Hsuan Yang, and Haibin Ling. "TapLab: A Fast Framework for Semantic Video Segmentation Tapping into Compressed-Domain Knowledge." *IEEE Trans. on Pattern Analysis and Machine Intelligence (PAMI)*, 44(3):1591-1603, 2022.
- Han Xu, Jiayi Ma, Junjun Jiang, Xiaojie Guo, and Haibin Ling. "U2Fusion: A Unified Unsupervised Image Fusion Network," *IEEE Trans. on Pattern Analysis and Machine Intelligence* (PAMI), 44(1): 502-518, 2022.
- 26. Jianqing Jia, Semir Elezovikj, Heng Fan, Shuojin Yang, Jing Liu, Wei Guo, Chiu C. Tan, and Haibin Ling. "Semantic-Aware Label Placement for Augmented Reality in Street View." *The Visual Computer*, 37(7):1805-1819, 2021.
- Pengpeng Liang, Haoxuanye Ji, Erkang Cheng, Yumei Chai, Liming Wang, and Haibin Ling. "Learning Local Descriptors with Multi-Level Feature Aggregation and Spatial Context Pyramid." Neurocomputing, 461:99-108, 2021.

- Pengpeng Liang, Haoxuanye Ji, Yifan Wu, Yumei Chai, Liming Wang, Chunyuan Liao, and Haibin Ling. "Planar Object Tracking Benchmark in the Wild." *Neurocomputing*, 454: 254-267, 2021.
- Bingyao Huang, Ying Tang, Samed Ozdemir, and Haibin Ling. "A Fast and Flexible Projector-Camera Calibration System." *IEEE Trans. on Automation Science and Engineering (T-ASE)*, 18(3):1049-1063, 2021.
- Wenguan Wang, Jianbing Shen, Xiankai Lu, Steven C. H. Hoi, and Haibin Ling. "Paying Attention to Video Object Segmentation," *IEEE Trans. on Pattern Analysis and Machine Intelligence (PAMI)*, 43(7):2413-2428, 2021.
- Yong Xu, Chaoda Zheng, Ruotao Xu, Yuhui Quan, and Haibin Ling. "Multi-View 3D Shape Recognition via Correspondence-Aware Deep Learning." *IEEE Trans. on Image Processing* (*T-IP*), 30:5299-5312, 2021.
- 32. Yong Xu, Haoyang Zou, Yan Huang, Lianwen Jin, and Haibin Ling. "Super-resolving blurry face images with identity preservation." *Pattern Recognition Letters*, 146:158-164, 2021.
- 33. Xingping Dong, Jianbing Shen, Wenguan Wang, Ling Shao, Haibin Ling, and Fatih Porikli. "Dynamical Hyperparameter Optimization via Deep Reinforcement Learning in Tracking," *IEEE Trans. on Pattern Analysis and Machine Intelligence (PAMI)*, 43(5):1515-1529, 2021.
- 34. Gongyang Li, Zhi Liu, Minyu Chen, Zhen Bai, and Haibin Ling. "Hierarchical Alternate Interaction Network for RGB-D Salient Object Detection." *IEEE Trans. on Image Processing* (*T-IP*), 30:3528-3542, 2021.
- 35. Shuai Di, Chun-Guang Li, Qi Feng, Mei Zhang, Honggang Zhang, Semir Elezovikj, Chiu C. Tan, and Haibin Ling. "Rainy Night Scene Understanding with Near-Scene Semantic Adaptation." *IEEE Trans. on Intelligent Transportation Systems (T-ITS)*, 22(3):594-1602, 2021.
- 36. Heng Fan*, Hexin Bai*, Liting Lin, Fan Yang, Peng Chu, Ge Deng, Sijia Yu, Harshit, Mingzhen Huang, Juehuan Liu, Yong Xu, Chunyuan Liao, Lin Yuan, and Haibin Ling. "La-SOT: A High-quality Large-scale Single Object Tracking Benchmark." *International Journal* of Computer Vision (IJCV), 129:439-461, 2021. (* equal contribution)
- 37. Yifeng Ding, Shaoguo Wen, Jiyang Xie, Dongliang Chang, Zhanyu Ma, Zhongwei Si, Ming Wu, and Haibin Ling. "AP-CNN: Weakly Supervised Attention Pyramid Convolutional Neural Network for Fine-Grained Visual Classification." *IEEE Trans. on Image Processing (T-IP)*, 30:2826-2836, 2021.
- Xin Liu, Zhikai Hu, Haibin Ling, and Yiu-ming Cheung. "MTFH: A Matrix Tri-Factorization Hashing Framework for Efficient Cross-Modal Retrieval," *IEEE Trans. on Pattern Analysis* and Machine Intelligence (PAMI), 43(3): 964-981, 2021.
- 39. Qin Zhou, Heng Fan, Hang Su, Shibao Zheng, Hua Yang, Shuang Wu, and Haibin Ling. "Robust and Efficient Graph Correspondence Transfer for Person Re-identification," *IEEE Trans. on Image Processing (T-IP)*, 30:1623-1638, 2021.
- 40. Gongyang Li, Zhi Liu, Ran Shi, Zheng Hu, Weijie Wei, Yong Wu, Mengke Huang, and Haibin Ling. "Personal Fixations-Based Object Segmentation with Object Localization and Boundary Protection," *IEEE Trans. on Image Processing (T-IP)*, 30:1461-1475, 2021.
- 41. Wenguan Wang, Jianbing Shen, Jianwen Xie, Ming-Ming Cheng, Haibin Ling, and Ali Borji. "Revisiting Video Saliency Prediction in the Deep Learning Era," *IEEE Trans. on Pattern Analysis and Machine Intelligence (PAMI)*, 43(1): 220-237, 2021.

- 42. Runsheng Zhang, Yaping Huang, Mengyang Pu, Jian Zhang, Qingji Guan, Qi Zou, and Haibin Ling. "Object Discovery From a Single Unlabeled Image by Mining Frequent Itemset With Multi-scale Features." *IEEE Trans. on Image Processing (T-IP)*, 39:8606-8621, 2020.
- 43. Fuling Tang, Yihong Wu, Xiaohui Hou, and Haibin Ling. "3D Mapping and 6D Pose Computation for Real Time Augmented Reality on Cylindrical Objects", *IEEE Trans. on Circuits* and Systems for Video Technology (T-CSVT), 30(9):2887-2899, 2020.
- 44. Zhigang Chang, Qin Zhou, Heng Fan, Hang Su, Hua Yang, Shibao Zheng, and Haibin Ling. "Weighted Bilinear Coding over Salient Body Parts for Person Re-identification." Neurocomputing, 407: 454-464, 2020.
- Minye Wu, Haibin Ling, Ning Bi, Shenghua Gao, Qiang Hu, Hao Sheng, and Jingyi Yu. "Visual Tracking with Multiview Trajectory Prediction," *IEEE Trans. on Image Processing* (*T-IP*), 29: 8355-8367, 2020.
- 46. Fan Yang, Lei Zhang, Sijia Yu, Danil Prokhorov, Xue Mei, and Haibin Ling. "Feature Pyramid and Hierarchical Boosting Network for Pavement Crack Detection", *IEEE Trans.* on Intelligent Transportation Systems (T-ITS), 21(4):1525-1535, 2020.
- 47. Jin Gao, Qiang Wang, Junliang Xing, Haibin Ling, Weiming Hu, and Steve Maybank. "Tracking-by-Fusion via Gaussian Processes Regression Based Transfer Learning," *IEEE Trans. on Pattern Analysis and Machine Intelligence (PAMI)*, 42(4):939-955, 2020.
- 48. Huabing Zhou, Jiayi Ma, Chiu C. Tan, Yanduo Zhang, and Haibin Ling. "Cross-Weather Image Alignment via Latent Generative Model with Intensity Consistency," *IEEE Trans. on Image Processing (T-IP)*, 29(1):5216-5228, 2020.
- 49. Gongyang Li, Zhi Liu, and Haibin Ling. "ICNet: Information Conversion Network for RGB-D Salient Object Detection," *IEEE Trans. on Image Processing (T-IP)*, 29(1):4873-4884, 2020.
- 50. Guanyu Xing, Yanli Liu, Haibin Ling, Xavier Granier, and Yanci Zhang. "Automatic Spatially Varying Illumination Simulation of Indoor Scenes Based on a Single RGB-D Image," *IEEE Trans. on Visualization and Computer Graphics (TVCG)*, 26(4):1672-1685, 2020.
- 51. Xiaojie Guo, Yu Li, Jiayi Ma, and Haibin Ling. "Mutually Guided Image Filtering," *IEEE Trans. on Pattern Analysis and Machine Intelligence (PAMI)*, 42(3):694-707, 2020.
- 52. Weiming Hu, Xinchu Shi, Zongwei Zhou, Junliang Xing, Haibin Ling, and Stephen Maybank. "Dual L1-Normalized Context/Hyper-Context Aware Tensor Power Iteration and Its Applications to Multi-Object Tracking and Multi-Graph Matching." *International Journal of Computer Vision (IJCV)*, 128:360-392, 2020.
- Heng Fan and Haibin Ling. "Parallel Tracking and Verifying," IEEE Trans. on Image Processing (T-IP), 28(8):4130-4144, 2019.
- 54. Xinyi Li and Haibin Ling. "Hybrid Camera Pose Estimation With Online Partitioning for SLAM." *IEEE Robotics and Automation Letters (RA-L)* 5(2): 1453-1460, 2020. (Selected for ICRA 2020 presentation)
- Danping Zou, Yuanxin Wu, Ling Pei, Haibin Ling, and Wenxian Yu. "StructVIO: Visualinertial Odometry with Structural Regularity of Man-made Environments," *IEEE Trans. on Robotics (T-RO)*, 35(4):999-1013, 2019.
- 56. Xinchu Shi, Haibin Ling, Yu Pang, Weiming Hu, Peng Chu, and Junliang Xing. "Rank-1 Tensor Approximation for High-Order Association in Multi-Target Tracking." International Journal of Computer Vision (IJCV), 127(8):1063-1083, 2019.

- 57. Liang Tian, Jing Liu, Haibin Ling, and Wei Guo. "Disparity estimation in stereo video sequence with adaptive spatiotemporally consistent constraints", *The Visual Computer*, 35(10): 1427-1446, 2019.
- Dan Shen, Haibin Ling, Khanh Pham, Erik Blasch, Genshe Chen. "Computer vision and pursuit-evasion game theoretical controls for ground robots," *Advances in Mechanical Engineering*, 11(8), 2019.
- Xin Liu, Jiajia Geng, Haibin Ling, and Yiu-ming Cheung. "Attention Guided Deep Audio-Face Fusion for Efficient Speaker Naming," *Pattern Recognition*, 88:557-568, 2019.
- Lin Chen, Fan Zhou, Yu Shen, Xiang Tian, Haibin Ling, and Yaowu Chen. "Robust Visual Tracking for Planar Objects Using Gradient Orientation Pyramid," *Journal of Electronic Imaging (JEI)*, 28(1):013007, 2019.
- Yifan Wu, Fan Yang, Yong Xu, and Haibin Ling. "Privacy-Protective-GAN for Privacy Preserving Face De-identification," Journal of Computer Science and Technology (JCST), 34(1):47-60, 2019.
- Jifeng Shen, Xin Zuo, Wankou Yang, Danil Prokhorov, Xue Mei, and Haibin Ling. "Differential Features for Pedestrian Detection: A Taylor Series Perspective." *IEEE Trans. on Intelligent Transportation Systems (T-ITS)*, 20(8):2913-2922, 2019.
- 63. Jifeng Shen, Xin Zuo, Lei Zhu, Jun Li, Wankou Yang, and Haibin Ling. "Pedestrian Proposal and Refining Based on the Shared Pixel Differential Feature." *IEEE Trans. on Intelligent Transportation Systems (T-ITS)*, 20(6): 2085-2095, 2019.
- Haoran Wang, Chunfeng Yuan, Jifeng Shen, Wankou Yang, and Haibin Ling. "Action Unit Detection and Key Frame Selection for Human Activity Prediction," *Neurocomputing*, 308:109-119, 2018.
- 65. Wenguan Wang, Jianbing Shen, and Haibin Ling. "A Deep Network Solution for Attention and Aesthetics Aware Photo Cropping," *IEEE Trans. on Pattern Analysis and Machine Intelligence (PAMI)*, 41(7):1531-1544, 2019.
- Tangquan Qi, Yong Xu, and Haibin Ling. "Tourism Scene Classification Based on Multi-Stage Transfer Learning Model." Neural Computing and Applications, 31(8): 4341-4352, 2019.
- Heng Fan, Xue Mei, Danil Prokhorov, and Haibin Ling. "Multi-level Contextual RNNs with Attention Model for Scene Labeling", *IEEE Trans. on Intelligent Transportation Systems* (*T-ITS*), 19(11):3475-3485, 2018.
- Tao Wang, Haibin Ling, Congyan Lang, and Songhe Feng. "Graph Matching with Adaptive and Branching Path Following," *IEEE Trans. on Pattern Analysis and Machine Intelligence* (*PAMI*), 40(12):2853-2867, 2018.
- Yunlong Yu, Zhong Ji, Xi Li, Jichang Guo, Zhongfei Zhang, Haibin Ling, and Fei Wu. "Transductive Zero-Shot Learning With a Self-Training Dictionary Approach," *IEEE Trans.* on Cybernetics, 48(10):2908-2919, 2018.
- 70. Hai Min, Wei Jia, Yang Zhao, Wangmeng Zuo, Haibin Ling, and Yuetong Luo. "LATE: A Level Set Method Based on Local Approximation of Taylor Expansion for Segmenting Intensity Inhomogeneous Images," *IEEE Trans. on Image Processing (T-IP)*, 27(10):5016-5031, 2018.
- Tao Wang and Haibin Ling. "Gracker: A Graph-based Planar Object Tracker," *IEEE Trans.* on Pattern Analysis and Machine Intelligence (PAMI), 40(6):1494-1501, 2018.

- 72. Qi Zou, Haibin Ling, Yu Pang, Yaping Huang, and Mei Tian. "Joint Headlight Pairing and Vehicle Tracking by weighted Set Packing in Nighttime Traffic videos", *IEEE Trans. on Intelligent Transportation Systems (T-ITS)*, 19(6):1950-1961, 2018.
- 73. Dong Wang, Meng Yi, Fan Yang, Erik Blasch, Carolyn Sheaff, Genshe Chen, and Haibin Ling. "Online Single Target Tracking in WAMI: Benchmark and Evaluation," *Multimedia Tools and Application*, 77(9):10939-10960, 2018.
- 74. Shuai Di, Honggang Zhang, Chun-Guang Li, Xue Mei, Danil Prokhorov, and Haibin Ling. "Cross-domain Traffic Scene Understanding: A Dense Correspondence based Transfer Learning Approach," *IEEE Trans. on Intelligent Transportation Systems (T-ITS)*, 19(3):745-757, 2018.
- Yuxi Wang, Yue Liu, Erik Blasch, and Haibin Ling. "Simultaneous Trajectory Association and Clustering for Motion Segmentation," *IEEE Signal Processing Letters (SPL)*, 25(1):145-149, 2018.
- Tangquan Qi, Yong Xu, Yuhui Quan, Yaodong Wang, and Haibin Ling. "Image-Based Action Recognition Using Hint-Enhanced Deep Neural Networks," *Neurocomputing*, 267:475-488, 2017.
- 77. Haibin Ling. "Augmented Reality in Reality", IEEE MultiMedia, 24(3):10-15, 2017. (Invited)
- Haiqiang Zuo, Haitao Lang, Erik Blasch, and Haibin Ling. "Covert Photo Classification by Deep Convolutional Neural Networks," *Machine Vision and Applications (MVA)*, 28(5-6):623-634, 2017.
- Wei Jia, Bob Zhang, Jingting Lu, Yihai Zhu, Yang Zhao, Wangmeng Zuo, and Haibin Ling. "Palmprint Recognition Based on Completed Directional Representation," *IEEE Trans. on Image Processing (T-IP)*, 26(9):4483-4498, 2017.
- 80. Xin Liang, Zuyan Zhang, Jianping Gu, Zhihui Wang, Bart Vandenberghe, Reinhilde Jacobs, Jie Yang, Guowu Ma, Haibin Ling, and Xuchen Ma. "Comparison of Micro-CT and Cone Beam CT on the Feasibility of Assessing Mandibular Trabecular Structures", *Dentomaxillo-facial Radiology (DMFR)*, 46(5):20160435, 2017.
- 81. Nianyi Li, Jinwei Ye, Yu Ji, Haibin Ling, and Jingyi Yu. "Saliency Detection on Light Field," *IEEE Trans. on Pattern Analysis and Machine Intelligence (PAMI)*, 39(8):1605-1616, 2017.
- Qin Zhou, Shibao Zheng, Haibin Ling, Hang Su, and Shuang Wu. "Joint Dictionary and Metric Learning for Person Re-identification." *Pattern Recognition*, 72:196-206, 2017.
- Haiqiang Zuo, Heng Fan, Erik Blasch, and Haibin Ling. "Combining Convolutional and Recurrent Neural Networks for Human Skin Detection," *IEEE Signal Processing Letters (SPL)*, 24(3):289-293, 2017.
- Junliang Xing, Kai Li, Weiming Hu, Chunfeng Yuan, and Haibin Ling. "Diagnosing deep learning models for high accuracy age estimation from a single image", *Pattern Recognition*, 66:106-116, 2017.
- Xiaojie Guo, Yu Li, and Haibin Ling. "LIME: Low-light IMage Enhancement via Illumination Map Estimation," *IEEE Trans. on Image Processing (T-IP)*, 26(2): 982-993, 2017.
- Haoran Wang, Wankou Yang, Chunfeng Yuan, Haibin Ling, and Weiming Hu. "Human Activity Prediction Using Temporally-Weighted Generalized Time Warping," *Neurocomputing*, 225: 139-147, 2017.
- 87. Ryan Wu, Bingwei Liu, Yu Chen, Erik Blasch, Haibin Ling, and Genshe Chen. "A Containerbased Elastic Cloud Architecture for Pseudo Real-time Exploitation of Wide Area Motion Imagery (WAMI) Stream." Journal of Signal Processing Systems, 88(2):219-231, 2017.

- Jifeng Shen, Xin Zuo, Jun Li, Wankou Yang, and Haibin Ling. "A Novel Pixel Neighborhood Differential Statistic Feature for Pedestrian and Face Detection", *Pattern Recognition*, 63:127-138, 2017.
- Houwen Peng, Bing Li, Haibin Ling, Weiming Hu, Weihua Xiong, and Stephen Maybank.
 "Salient Object Detection via Structured Matrix Decomposition," *IEEE Trans. on Pattern Analysis and Machine Intelligence (PAMI)*, 39(4):818-832, 2017.
- Tao Wang, Haibin Ling, Congyan Lang, and Songhe Feng. "Symmetry-Aware Graph Matching", Pattern Recognition, 60:657-668, 2016.
- 91. Xi Li, Liming Zhao, Lina Wei, Ming-Hsuan Yang, Fei Wu, Yueting Zhuang, Haibin Ling, and Jingdong Wang. "DeepSaliency: Multi-Task Deep Neural Network Model for Salient Object Detection." *IEEE Trans. on Image Processing (T-IP)*, 25(8):3919-3930, 2016.
- Pengpeng Liang, Yu Pang, Chunyuan Liao, Xue Mei, and Haibin Ling. "Adaptive Objectness for Object Tracking," *IEEE Signal Processing Letters (SPL)*, 23(7):949–953, 2016.
- 93. Guanyu Xing, Yanli Liu, Wanfa Zhang, and Haibin Ling. "Light Mixture Intrinsic Image Decomposition Based on a Single RGB-D Image", *The Visual Computer*, 32(6-8): 1013-1023, 2016.
- 94. Pengpeng Liang, Erik Blasch, and Haibin Ling. "Encoding Color Information for Visual Tracking: Algorithms and Benchmark," *IEEE Trans. on Image Processing (T-IP)*, 24(12):5630– 5644, 2015.
- Liang Du and Haibin Ling. "Dynamic Scene Classification Using Redundant Spatial Pooling," IEEE Trans. on Cybernetics, 46(9):2156-2165, 2016.
- 96. Qi Zou, Haibin Ling, Siwei Luo, Yaping Huang, and Mei Tian. "Robust Nighttime Vehicle Detection by Tracking and Grouping Headlights," *IEEE Trans. on Intelligent Transportation* Systems (T-ITS), 16(5):2838-2849, 2015.
- Haitao Lang and Haibin Ling. "Covert Photo Classification by Fusing Image Features and Visual Attributes," *IEEE Trans. on Image Processing (T-IP)*, 24(10):2996–3008, 2015.
- 98. Yong Xu, Yuhui Quan, Zhuming Zhang, Haibin Ling, and Hui Ji. "Classifying Dynamic Textures via Spatiotemporal Fractal Analysis", *Pattern Recognition*, 48(10), 3239–3248, 2015.
- 99. Weiming Hu, Nianhua Xie, Ruiguang Hu, Haibin Ling, Qiang Chen, Shuicheng Yan, and Stephen Maybank. "Bin Ratio-Based Histogram Distances and Their Application to Image Classification," *IEEE Trans. on Pattern Analysis and Machine Intelligence (PAMI)*, 36(12): 2338–2352, 2014.
- 100. Erkang Cheng, Liang Du, Yi Wu, Ying Zhu, Vasileios Megalooikonomou, and Haibin Ling. "Discriminative Vessel Segmentation in Retinal Images by Fusing Context-Aware Hybrid Features," *Machine Vision and Applications (MVA)*, 25(7): 1779-1792, 2014.
- 101. Haibin Ling, Xiong Yang, Peiyi Li, Vasileios Megalooikonomou, Yong Xu, and Jie Yang. "Cross gender-age trabecular texture analysis in dental cone beam computed tomography", *Dentomaxillofacial Radiology (DMFR)*, 43:20130324, 2014.
- 102. Weiming Hu, Ruiguang Hu, Nianhua Xie, Haibin Ling, and Stephen Maybank. "Image Classification Using Multi-Scale Information Fusion Based on Saliency Driven Nonlinear Diffusion Filtering," *IEEE Trans. on Image Processing (T-IP)*, 23(4):1513–1526, 2014.
- 103. Rongxiang Hu, Wei Jia, Haibin Ling, Y. Zhao, and Jie Gui. "Angular Pattern and Binary Angular Pattern for Shape Retrieval," *IEEE Trans. on Image Processing (T-IP)*, 23(3):1118– 1127, 2014.

- 104. Yi Wu, Bin Shen, and Haibin Ling. "Visual Tracking via Online Sparse Nonnegative Representation on Manifold", *IEEE Trans. on Circuits and Systems for Video Technology (T-CSVT)*, 24(3): 374-383, 2014.
- 105. Chunfeng Yuan, Xi Li, Weiming Hu, Haibin Ling, and Stephen Maybank. "Modeling Geometric-Temporal Context with Directional Pyramid Co-occurrence for Action Recognition", *IEEE Trans. on Image Processing (T-IP)*, 23(2):658–672, 2014.
- 106. Haoran Wang, Chunfeng Yuan, Weiming Hu, Haibin Ling, Wankou Yang, and Changyin Sun. "Action Recognition Using Non-negative Action Component Representation and Sparse Basis Selection," *IEEE Trans. on Image Processing (T-IP)*, 23(2):570–581, 2014.
- 107. Jin Sun and Haibin Ling. "Scale and Object Aware Image Thumbnailing", International Journal of Computer Vision (IJCV), 104:135–153, 2013.
- 108. Xue Mei, Haibin Ling, Yi Wu, Erik Blasch, and Li Bai. "Efficient Minimum Error Bounded Particle Resampling L1 Tracker with Occlusion Detection," *IEEE Trans. on Image Processing* (*T-IP*), 22(7): 2661–2675, 2013.
- 109. Xiaoqin Zhang, Wei Li, Weiming Hu, Haibin Ling, and Stephen Maybank. "Block Covariance Based ℓ_1 Tracker with a Subtle Template Dictionary", *Pattern Recognition*, 46(7):1750–1761, 2013.
- 110. Hui Ji, Xiong Yang, Haibin Ling, and Yong Xu. "Wavelet Domain Multi-fractal Analysis for Static and Dynamic Texture Classification", *IEEE Trans. on Image Processing (T-IP)*, 22(1):286–299, 2013.
- 111. Mei Zhang and Haibin Ling. "Distinguishing fraud from error in restatement data using machine learning techniques." Academy of Business Journal, 2, p1, 2013.
- 112. Rongxiang Hu, Wei Jia, Haibin Ling, and Deshuang Huang. "Multiscale Distance Matrix for Fast Plant Leaf Recognition," *IEEE Trans. on Image Processing (T-IP)*, 21(11):4667–4672, 2012.
- 113. Li An, Haibin Ling, Zoran Obradovic, Desmond J. Smith, and Vasileios Megalooikonomou. "Learning pair-wise gene functional similarity by multiplex gene expression maps", BMC Bioinformatics, 13(S-3):S1, 2012.
- 114. Yi Wu, Jian Cheng, Jinqiao Wang, Hanqing Lu, Jun Wang, Haibin Ling, Erik Blasch, and Li Bai, "Real-time Probabilistic Covariance Tracking with Efficient Model Update", *IEEE Trans. on Image Processing (T-IP)*, 21(5): 2824–2837, 2012.
- 115. Jingting Zeng, Haibin Ling, Longin Jan Latecki, Shanon Fitzhugh, and Guodong Guo, "Analysis of Facial Images Across Age Progression by Humans," *ISRN Machine Vision*, Article ID 505974, 2012.
- 116. Xue Mei and Haibin Ling, "Robust Visual Tracking and Vehicle Classification via Sparse Representation," *IEEE Trans. on Pattern Analysis and Machine Intelligence (PAMI)*, 33(11):2259–2272, 2011.
- 117. Xue Mei, Haibin Ling, and David Jacobs, "Illumination Recovery from Image with Cast Shadows via Sparse Representation", *IEEE Trans. on Image Processing (T-IP)*, 20(8):2366– 2377, 2011.
- Mei Zhang, Hanmei Chen, and Haibin Ling, "Restatement and Audit Risk," Financial Decisions, 12(1):1-14, 2011.
- 119. Hanmei Chen, Mei Zhang, and Haibin Ling, "How Does the Distinguishment between Errors and Irregularities Impact Audit Risk? Evidence from Restatement." *Global Review of Accounting and Finance*, 2(2):1-11, 2011.

- 120. ChengEn Lu, Nagesh Adluru, Haibin Ling, Guangxi Zhu, and Longin Jan Latecki. "Contour Based Object Detection Using Part-Bundles," *Computer Vision and Image Understanding* (CVIU), 114(7):827–834, 2010.
- 121. Haibin Ling, Stefano Soatto, Narayanan Ramanathan, and David Jacobs. "Face Verification across Age Progression using Discriminative Methods." *IEEE Trans. on Information Forensics & Security (TIFS)*, 5(1):82-91, 2010.
- 122. Haibin Ling and Kazunori Okada, "An Efficient Earth Mover's Distance Algorithm for Robust Histogram Comparison," *IEEE Trans. on Pattern Analysis and Machine Intelligence (PAMI)*, 29(5):840-853, 2007.
- 123. Haibin Ling and David Jacobs, "Shape Classification Using the Inner-Distance", IEEE Trans. on Pattern Analysis and Machine Intelligence (PAMI), 29(2):286-299, 2007.
- 124. Gaurav Agarwal, Peter Belhumeur, Steven Feiner, David Jacobs, John Kress, Ravi Ramamoorthi, Norman Bourg, Nandan Dixit, Haibin Ling, Dhruv Mahajan, Rusty Russell, Sameer Shirdhonkar, Kalyan Sunkavalli, and Sean White, "First Steps Toward an Electronic Field Guide for Plants," *Taxon*, 55(3):597-610, 2006.

Magazine

- 125. Dan Shen, Genshe Chen, Haibin Ling, Khanh Pham, and Erik Blasch. "Improving coordination of unmanned vehicles", *SPIE Newsroom*, August 2014. (Invited)
- 126. Jianjun Gao, Haibin Ling, Erik Blasch, Khanh Pham, Zhonghai Wang, and Genshe Chen. "Context-aware tracking with wide-area motion imagery", *SPIE Newsroom*, 2013. (Invited)

Book Chapters

- 127. Wei Chang, Huanyang Zheng, Jie Wu, Chiu Tan, and Haibin Ling, "Environment-assisted Vehicular Data in Smart City," in *Smart Cities: Foundations, Principles, and Applications* (Chapter 29), Wiley, 2017.
- 128. Ning Chen, Yu Chen, Xinyue Ye, Haibin Ling, Sejun Song, and Chin-Tser Huang. "Smart City Surveillance in Fog Computing," In Advances in Mobile Cloud Computing and Big Data in the 5G Era, C.X. Mavromoustakis et al. (eds.), 2017.
- 129. Erik Blasch, Riad I. Hammoud, Haibin Ling, Dan Shen, James Nagy, and Genshe Chen. "Context-Based Fusion of Physical and Human Data for Level 5 Information Fusion." In *Context-Enhanced Information Fusion*, Lauro Snidaro, Jesus Garcia, James Llinas, Erik Blasch (Eds), pp. 479-505, 2016.
- 130. Erik Blasch, Pengpeng Liang, Xinchu Shi, Peiyi Li, and Haibin Ling. "Entity Association Using Context for Wide Area Motion Imagery Target Tracking." In *Context-Enhanced Information Fusion*, Lauro Snidaro, Jess Garcia, James Llinas, Erik Blasch (Eds), pp. 569-595, 2016.
- 131. Andrea Vedaldi, Haibin Ling, and Stefano Soatto. "Knowing a good feature when you see it: ground truth and methodology to evaluate local features for recognition." In *Computer Vision: Detection, Recognition and Reconstruction*, R. Cipolla, S. Battiato and G.-M. Farinella (Eds), pp. 27–49, Springer, 2010.
- 132. Haibin Ling and David Jacobs. "Shape Matching for Foliage Database Retrieval", in Semantic Mining Technologies for Multimedia Databases, D. Tao, D. Xu, and X. Li (Eds), pp. 100–129, Idea Group Inc., 2009.

Selected Major Conference Publication

- 133. Lu Pang, Tao Sun, Haibin Ling, and Chao Chen. "Backdoor Cleansing with Unlabeled Data." In Proc. of IEEE/CVF Conf. on Computer Vision and Pattern Recognition (CVPR), 2023.
- 134. Caixia Zhou, Yaping Huang, Mengyang Pu, Qingji Guan, Li Huang, and Haibin Ling. "The Treasure Beneath Multiple Annotations: An Uncertainty-aware Edge Detector." In Proc. of IEEE/CVF Conf. on Computer Vision and Pattern Recognition (CVPR), 2023.
- 135. Yuxi Wang, Haibin Ling, and Bingyao Huang. "CompenHR: Efficient Full Compensation for High-resolution Projector." In *IEEE Conf. on Virtual Reality and 3D User Interfaces (IEEE VR)*, 135-145, 2023.
- 136. Tao Sun, Cheng Lu, and Haibin Ling. "Domain Adaptation with Adversarial Training on Penultimate Activations." In Proc. of AAAI Conference on Artificial Intelligence (AAAI), 2023.
- 137. Liting Lin, Heng Fan, Zhipeng Zhang, Yong Xu, and Haibin Ling. "SwinTrack: A Simple and Strong Baseline for Transformer Tracking." In *Proc. of Conf. on Neural Information Processing Systems (NeurIPS)*, 2022.
- Xinyi Li and Haibin Ling, "GTCaR: Graph Transformer for Camera Re-localization," European Conf. on Computer Vision (ECCV), 229-246, 2022.
- 139. Bolin Ni, Houwen Peng, Minghao Chen, Songyang Zhang, Gaofeng Meng, Jianlong Fu, Shiming Xiang, and Haibin Ling. "Expanding Language-Image Pretrained Models for General Video Recognition." European Conf. on Computer Vision (ECCV), 1-18, 2022.
- 140. Tao Sun, Cheng Lu, and Haibin Ling. "Prior Knowledge Guided Unsupervised Domain Adaptation." European Conf. on Computer Vision (ECCV), 639-655, 2022.
- 141. Mingzhen Huang, Supreeth Narasimhaswamy, Saif Vazir, Haibin Ling, and Minh Hoai. "Forward Propagation, Backward Regression and Pose Association for Hand Tracking in the Wild." In Proc. of IEEE/CVF Conf. on Computer Vision and Pattern Recognition (CVPR), 2022.
- 142. Mengyang Pu, Yaping Huang, Yuming Liu, Qingji Guan, and Haibin Ling. "EDTER: Edge Detection with Transformer." In Proc. of IEEE/CVF Conf. on Computer Vision and Pattern Recognition (CVPR), 2022.
- 143. Jiaxiang Ren, Kicheon Park, Yingtian Pan, and Haibin Ling. "Self-Supervised Bulk Motion Artifact Removal in Optical Coherence Tomography Angiography." In Proc. of IEEE/CVF Conf. on Computer Vision and Pattern Recognition (CVPR), 20585-20593, 2022.
- 144. Tao Sun, Cheng Lu, Tianshuo Zhang, and Haibin Ling. "Safe Self-Refinement for Transformerbased Domain Adaptation." In Proc. of IEEE/CVF Conf. on Computer Vision and Pattern Recognition (CVPR), 7181-7190, 2022.
- 145. Bingyao Huang and Haibin Ling. "SPAA: Stealthy Projector-based Adversarial Attacks on Deep Image Classifiers." In *IEEE Conf. on Virtual Reality and 3D User Interfaces (IEEE VR)*, 534-542, 2022.
- 146. Yaokang Zhu, Kai Zhang, Jun Wang, Haibin Ling, Jie Zhang, and Hongyuan Zha. "Structural Landmarking and Interaction Modelling: A SLIM Network for Graph Classification." In Proc. of AAAI Conference on Artificial Intelligence (AAAI), 2022.
- 147. Minghao Chen, Kan Wu, Bolin Ni, Houwen Peng, Bei Liu, Jianlong Fu, Hongyang Chao, and Haibin Ling. "Searching the Search Space of Vision Transformer." In Proc. of Conf. on Neural Information Processing Systems (NeurIPS), 8714-8726, 2021.

- 148. Minghao Chen*, Houwen Peng*, Jianlong Fu, and Haibin Ling. "AutoFormer: Searching Transformers for Visual Recognition." In *Proc. of the IEEE Int'l Conf. on Computer Vision* (*ICCV*), 12250-12260, 2021. (*Equal contribution.)
- 149. Heng Fan, Halady Akhilesha Miththanthaya, Harshit, Siranjiv Ramana Rajan, Xiaoqiong Liu, Zhilin Zou, Yuewei Lin, and Haibin Ling. "Transparent Object Tracking Benchmark." In Proc. of the IEEE Int'l Conf. on Computer Vision (ICCV), 10714-10723, 2021.
- 150. Xinyi Li and Haibin Ling. "PoGO-Net: Pose Graph Optimization with Graph Neural Networks." In Proc. of the IEEE Int'l Conf. on Computer Vision (ICCV), 5875-5885, 2021.
- 151. Xiaowei Liao, Yong Xu, and Haibin Ling. "Hypergraph Neural Networks for Hypergraph Matching." In Proc. of the IEEE Int'l Conf. on Computer Vision (ICCV), 1246-1255, 2021.
- 152. Mengyang Pu, Yaping Huang, Qingji Guan, and Haibin Ling. "RINDNet: Edge Detection for Discontinuity in Reflectance, Illumination, Normal and Depth." In *Proc. of the IEEE Int'l Conf. on Computer Vision (ICCV)*, 6859-6868, 2021.
- 153. Hong Wang, Yuefan Deng, Shinjae Yoo, Haibin Ling, and Yuewei Lin. "AGKD-BML: Defense Against Adversarial Attack by Attention Guided Knowledge Distillation and Bi-directional Metric Learning." In Proc. of the IEEE Int'l Conf. on Computer Vision (ICCV), 7638-7647, 2021. Hong Wang, Yuefan Deng, Shinjae Yoo, Haibin Ling, and Yuewei Lin. AGKD-BML: Defense Against Adversarial Attack by Attention Guided Knowledge Distillation and Bidirectional Metric Learning. Proc. of the IEEE Int'l Conf. on Computer Vision (ICCV), 2021.
- 154. Heng Fan and Haibin Ling. "CRACT: Cascaded Regression-Align-Classification for Robust Tracking." In Proc. of IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), 7013-7020, 2021.
- 155. Jingwei Qu, Haibin Ling, Chenrui Zhang, Xiaoqing Lyu, and Zhi Tang. "Adaptive Edge Attention for Graph Matching with Outliers", in *Proc. of Int'l Joint Conf. on Artificial Intelligence (IJCAI)*, 2021.
- 156. Hexin Bai^{*}, Wensheng Cheng^{*}, Peng Chu^{*}, Juehuan Liu, Kai Zhang, and Haibin Ling. "GMOT-40: A Benchmark for Generic Multiple Object Tracking." In *Proc. of IEEE/CVF Conf. on Computer Vision and Pattern Recognition (CVPR)*, 6719-6728, 2021. (*Equal contribution.)
- 157. Minghao Chen, Jianlong Fu, and Haibin Ling. "One-Shot Neural Ensemble Architecture Search by Diversity Guided Search Space Shrinking," in Proc. of IEEE/CVF Conf. on Computer Vision and Pattern Recognition (CVPR), 16530-16539, 2021.
- 158. Tingting Liang, Yongtao Wang, Guosheng Hu, Zhi Tang, and Haibin Ling. "OPANAS: One-Shot Path Aggregation Network Architecture Search for Object Detection," in *Proc. of IEEE/CVF Conf. on Computer Vision and Pattern Recognition (CVPR)*, 10195-10203, 2021.
- 159. Bingyao Huang and Haibin Ling. "DeProCams: Simultaneous Relighting, Compensation and Shape Reconstruction for Projector-Camera Systems." In *IEEE Conf. on Virtual Reality and* 3D User Interfaces (IEEE VR), 2021. (Best Journal Paper Award) (Also in IEEE Trans. on Visualization and Computer Graphics (TVCG), 27(5):2725-2735, 2021.)
- 160. Bingyao Huang, Ruyi Lian, Dimitris Samaras, and Haibin Ling. "Modeling Deep Learning Based Optical Attacks to Mail Privacy." In Proc. of AAAI Conference on Artificial Intelligence (AAAI), 1593-1601, 2021.
- 161. Peng Chu, Xiao Bian, Shaopeng Liu, Haibin Ling. "Feature Space Augmentation for Long-Tailed Data", European Conf. on Computer Vision (ECCV), 694-710, 2020.

- 162. Gongyang Li, Zhi Liu, Linwei Ye, Yang Wang, Haibin Ling. "Cross-Modal Weighting Network for RGB-D Salient Object Detection", *European Conf. on Computer Vision (ECCV)*, 2020.
- 163. Fan Yang*, Ren Li*, Georgios Georgakis, Srikrishna Karanam, Terrence Chen, Haibin Ling, and Ziyan Wu. "Robust Multi-modal 3D Patient Body Modeling." In Proc. of the Int'l Conf. on Medical Image Computing and Computer Assisted Intervention (MICCAI), 2020. (*Equal contribution.)
- 164. Tao Wang, He Liu, Yidong Li, Yi Jin, Xiaohui Hou, and Haibin Ling. "Learning Combinatorial Solver for Graph Matching", in Proc. of IEEE Conf. on Computer Vision and Pattern Recognition (CVPR), 2020.
- 165. Tianfei Zhou, Wenguan Wang, Qiyuan Qi, Haibin Ling, and Jianbing Shen. "Cascaded Human-Object Interaction Recognition", in *Proc. of IEEE Conf. on Computer Vision and Pattern Recognition (CVPR)*, 2020.
- 166. Sarah Lehman, Haibin Ling, and Chiu C. Tan. "ARCHIE: A User-Focused Framework for Testing Augmented Reality Applications in the Wild." In *IEEE Conf. on Virtual Reality and* 3D User Interfaces (IEEE VR), 903-912, 2020.
- 167. Yudong Liu, Yongtao Wang, Siwei Wang, Tingting Liang, Qijie Zhao, Zhi Tang, and Haibin Ling. "CBNet: A Novel Composite Backbone Network Architecture for Object Detection." In Proc. of AAAI Conference on Artificial Intelligence (AAAI), 11653-11660, 2020.
- 168. Bingyao Huang and Haibin Ling. "CompenNet++: End-to-end Full Projector Compensation." In Proc. of the IEEE Int'l Conf. on Computer Vision (ICCV), 7164-7173, 2019.
- 169. Tao Wang, Haibin Ling, Congyan Lang, Songhe Feng, and Xiaohui Hou. "Deformable Surface Tracking by Graph Matching." In Proc. of the IEEE Int'l Conf. on Computer Vision (ICCV), 901-910, 2019.
- 170. Peng Chu and Haibin Ling. "FAMNet: Learning Feature, Affinity and Multi-dimensional Assignment for Online Multiple Object Tracking." In Proc. of the IEEE Int'l Conf. on Computer Vision (ICCV), 6171-6180, 2019.
- 171. Ziyi Shen, Wenguan Wang, Xiankai Lu, Jianbing Shen, Haibin Ling, Tingfa Xu, and Ling Shao. "Human-Aware Motion Deblurring." In Proc. of the IEEE Int'l Conf. on Computer Vision (ICCV), 5571-5580, 2019.
- 172. Fan Yang, Heng Fan, Peng Chu, Erik Blasch, and Haibin Ling. "Clustered Object Detection in Aerial Images." In Proc. of the IEEE Int'l Conf. on Computer Vision (ICCV), 8310-8319, 2019.
- 173. Heng Fan*, Liting Lin*, Fan Yang*, Peng Chu*, Ge Deng, Sijia Yu, Hexin Bai, Yong Xu, Chunyuan Liao, and Haibin Ling. "LaSOT: A High-quality Benchmark for Large-scale Single Object Tracking", in Proc. of IEEE Conf. on Computer Vision and Pattern Recognition (CVPR), 5374-5383, 2019. (*Equal contribution.)
- 174. Heng Fan and Haibin Ling. "Siamese Cascaded Region Proposal Networks for Real-Time Visual Tracking", in Proc. of IEEE Conf. on Computer Vision and Pattern Recognition (CVPR), 7952-7961, 2019.
- 175. Wenguan Wang, Hongmei Song, Shuyang Zhao, Jianbing Shen, Sanyuan Zhao, Steven Hoi, and Haibin Ling. "Learning Unsupervised Video Object Segmentation through Visual Attention", in Proc. of IEEE Conf. on Computer Vision and Pattern Recognition (CVPR), 2019.
- 176. Bingyao Huang and Haibin Ling. "End-to-end Projector Photometric Compensation", in *Proc. of IEEE Conf. on Computer Vision and Pattern Recognition (CVPR)*, 6810-6819, 2019.

- 177. Qijie Zhao, Tao Sheng, Yongtao Wang, Zhi Tang, Ying Chen, Ling Cai, and Haibin Ling. "M2Det: A Single-Shot Object detector based on Multi-Level Feature Pyramid Network", in Proc. of AAAI Conference on Artificial Intelligence (AAAI), 2019.
- 178. Pengpeng Liang, Yifan Wu, Hu Lu, Liming Wang, Chunyuan Liao, and Haibin Ling. "Planar Object Tracking in the Wild: A Benchmark." in *Proc. of IEEE Int'l Conference on Robotics and Automation (ICRA)*, 2018.
- 179. Tao Wang, Haibin Ling, Congyan Lang, Songhe Feng, Yi Jing, and Yidong Li. "Constrained Confidence Matching for Planar Object Tracking." in *Proc. of IEEE Int'l Conference on Robotics and Automation (ICRA)*, 2018.
- 180. Qin Zhou, Heng Fan, Shibao Zheng, Hang Su, Xinzhe Li, Shuang Wu, and Haibin Ling. "Graph Correspondence Transfer for Person Re-identification", in Proc. of AAAI Conference on Artificial Intelligence (AAAI), 2018.
- 181. Heng Fan and Haibin Ling. "Parallel Tracking and Verifying: A Framework for Real-Time and High Accuracy Visual Tracking." In Proc. of the IEEE Int'l Conf. on Computer Vision (ICCV), pp.5487-5495, 2017.
- 182. Lei Zhu, Haibin Ling, Jin Wu, Huiping Deng, and Jing Liu. "Saliency Pattern Detection by Ranking Structured Trees." In Proc. of the IEEE Int'l Conf. on Computer Vision (ICCV), pp.5468-5477, 2017.
- 183. Xiaojie Guo, Xiaobo Wang, and Haibin Ling. "Exclusivity Regularized Machine: A New Ensemble SVM Classifier", in Proc. of Int'l Joint Conf. on Artificial Intelligence (IJCAI), pp.1739-1745, 2017.
- 184. Lin Chen, Fan Zhou, Yu Shen, Xiang Tian, Haibin Ling, and Yaowu Chen. "Illumination Insensitive Efficient Second-order Minimization for Planar Object Tracking." in Proc. of IEEE Int'l Conference on Robotics and Automation (ICRA), pp.4429-4436, 2017.
- 185. Chunjuan Bo, Xin Liang, Peng Chu, Jonathan Xu, Dong Wang, Jie Yang, Vasileios Megalooikonomou, and Haibin Ling. "Osteoporosis Prescreening Using Dental Panoramic Radiographs Feature Analysis," in *Proc. of IEEE Int'l Symposium on Biomedical Imaging (ISBI)*, pp. 188-191, 2017.
- 186. Tao Wang, Haibin Ling, Congyan Lang, and Jun Wu. "Branching Path Following for Graph Matching", in *European Conf. on Computer Vision (ECCV)*, 508-523, 2016.
- 187. Peng Chu, Yu Pang, Erkang Cheng, Ying Zhu, Yefeng Zheng, and Haibin Ling, "Structure-Aware Rank-1 Tensor Approximation for Curvilinear Structure Tracking Using Learned Hierarchical Features". In Proc. of the Int'l Conf. on Medical Image Computing and Computer Assisted Intervention (MICCAI), 413-421, 2016.
- 188. Hang Su, Yinpeng Dong, Jun Zhu, Haibin Ling, and Bo Zhang. "Crowd Scene Understanding with Coherent Recurrent Neural Networks", in Proc. of Int'l Joint Conf. on Artificial Intelligence (IJCAI), 3469-3476, 2016.
- 189. Xinchu Shi, Haibin Ling, Weiming Hu, Junliang Xing, and Yanning Zhang. "Tensor Power Iteration for Multi-Graph Matching", in Proc. of IEEE Conf. on Computer Vision and Pattern Recognition (CVPR), 5062-5070, 2016.
- 190. Tao Wang and Haibin Ling. "Path Following with Adaptive Path Estimation for Graph Matching", in Proc. of AAAI Conference on Artificial Intelligence (AAAI), 3625-3631, 2016.
- 191. Peiyi Li, Xi Li, Chunyuan Liao, and Haibin Ling. "3D Hand Pose Estimation Using Randomized Decision Forest with Segmentation Index Points." In Proc. of the IEEE Int'l Conf. on Computer Vision (ICCV), 819-827, 2015.

- 192. Liang Du and Haibin Ling. "Cross-Age Face Verification by Coordinating with Cross-Face Age Verification", in Proc. of IEEE Conf. on Computer Vision and Pattern Recognition (CVPR), 2329-2338, 2015.
- 193. Jin Gao, Haibin Ling, Weiming Hu, and Junliang Xing. "Transfer Learning Based Visual Tracking with Gaussian Process Regression", *European Conf. on Computer Vision (ECCV)*, Zurich, 2014.
- 194. Liang Du and Haibin Ling. "Exploiting Competition Relationship for Robust Visual Recognition", in Proc. of AAAI Conference on Artificial Intelligence (AAAI), Quebec, 2014.
- 195. Xinchu Shi, Haibin Ling, Weiming Hu, Chunfeng Yuan, and Junliang Xing. "Multi-target Tracking with Motion Context in Tenor Power Iteration", in Proc. of IEEE Conf. on Computer Vision and Pattern Recognition (CVPR), 3518-3525, 2014.
- 196. Erkang Cheng, Yu Pang, Ying Zhu, Jingyi Yu, and Haibin Ling. "Curvilinear Structure Tracking by Low Rank Tensor Approximation with Model Propagation", in *Proc. of IEEE* Conf. on Computer Vision and Pattern Recognition (CVPR), 3057-3064, 2014.
- 197. Nianyi Li, Jinwei Ye, Yu Ji, Haibin Ling, and Jingyi Yu. "Saliency Detection on Light Fields", in Proc. of IEEE Conf. on Computer Vision and Pattern Recognition (CVPR), 2806-2813, 2014.
- 198. Peiyi Li, Xiong Yang, Fangfang Xie, Jie Yang, Erkang Cheng, Vasileios Megalooikonomou, Yong Xu, and Haibin Ling. "Trabecular Texture Analysis in Dental CBCT by Multi-ROI Multi-Feature Fusion," in *Proc. of IEEE Int'l Symposium on Biomedical Imaging (ISBI)*, pp. 846–849, Beijing, China, 2014.
- 199. Yu Pang and Haibin Ling. "Finding the Best from the Second Bests Inhibiting Subjective Bias in Evaluation of Visual Tracking Algorithms", in *Proc. of the IEEE Int'l Conf. on Computer Vision (ICCV)*, 2013.
- 200. Peng Jiang, Haibin Ling, Jingyi Yu, and Jingliang Peng. "Salient Region Detection by UFO: Uniqueness, Focusness and Objectness", in Proc. of the IEEE Int'l Conf. on Computer Vision (ICCV), 2013.
- 201. Zhan Yu, Xinqing Guo, Haibin Ling, A. Lumsdaine, and Jingyi Yu. "Line-Assisted Light Field Triangulation and Stereo Matching", in Proc. of the IEEE Int'l Conf. on Computer Vision (ICCV), 2013.
- 202. Xinchu Shi, Haibin Ling, Junliang Xing, and Weiming Hu. "Multi-target Tracking by Rank-1 Tensor Approximation", in Proc. of IEEE Conf. on Computer Vision and Pattern Recognition (CVPR), pp.2387–2394, 2013.
- 203. Chunfeng Yuan, Xi Li, Weiming Hu, Haibin Ling, and Stephen Maybank. "3D R Transform on Spatio-Temporal Interest Points for Action Recognition", in *Proc. of IEEE Conf. on Computer Vision and Pattern Recognition (CVPR)*, pp.724–730, 2013.
- 204. Haitao Lang and Haibin Ling. "Classifying Covert Photographs", in *Proc. of IEEE Conf. on* Computer Vision and Pattern Recognition (CVPR), pp.1178–1185, Rode Island, 2012.
- 205. Yi Wu, B. Shen, and Haibin Ling. "Online Robust Image Alignment via Iterative Convex Optimization", in Proc. of IEEE Conf. on Computer Vision and Pattern Recognition (CVPR), pp.1808-1814, Rode Island, 2012.
- 206. Chenglong Bao, Yi Wu, Haibin Ling, and Hui Ji. "Real Time Robust L1 Tracker Using Accelerated Proximal Gradient Approach", in Proc. of IEEE Conf. on Computer Vision and Pattern Recognition (CVPR), pp.1830–1837, Rode Island, 2012.

- 207. Peng Jiang, Jingliang Peng, Guoquan Zhang, Erkang Cheng, Vasileios Megalooikonomou, and Haibin Ling. "Learning-based Automatic Breast Tumor Detection and Segmentation in Ultrasound Images," in *Proc. of IEEE Int'l Symposium on Biomedical Imaging (ISBI)*, pp.1587–1590, Barcelona, Spain, 2012.
- 208. Jin Sun and Haibin Ling. "Scale and Object Aware Image Retargeting for Thumbnail Browsing", in Proc. of the IEEE Int'l Conf. on Computer Vision (ICCV), pp. 1511-1518, 2011.
- 209. Yi Wu, Haibin Ling, Jingyi Yu, Feng Li, Xue Mei, and Erkang Cheng. "Blurred Target Tracking by Blur-driven Tracker", in *Proc. of the IEEE Int'l Conf. on Computer Vision* (ICCV), pp. 1100-1107, 2011.
- 210. Yong Xu, Yuhui Quan, Haibin Ling, and Hui Ji. "Dynamic Texture Classification Using Dynamic Fractal Analysis", in Proc. of the IEEE Int'l Conf. on Computer Vision (ICCV), pp.1219-1226, 2011.
- 211. Li An, Haibin Ling, Zoran Obradovic, Desmond J. Smith, and Vasileios Megalooikonomou. "Identifying pair-wise gene functional similarity by multiplex gene expression maps and supervised learning", In ACM Conf. on Bioinformatics, Computational Biology and Biomedicine (ACM BCB), Chicago, 2011. (regular paper)
- 212. Xue Mei, Haibin Ling, Yi Wu, Erik Blasch, and Li Bai. "Minimum Error Bounded Efficient l₁ Tracker with Occlusion Detection." in *Proc. of IEEE Conf. on Computer Vision and Pattern Recognition (CVPR)*, 1257–1264, Colorado Springs, 2011.
- 213. Tatyana Nuzhnaya, Erkang Cheng, Haibin Ling, D. Kontos, Predrag Bakic, and Vasileios Megalooikonomou. "Segmentation of Anatomical Branching Structures based on Texture Features and Graph Cut," in *Proc. of IEEE Int'l Symposium on Biomedical Imaging (ISBI)*, pp. 673–676, Chicago, 2011.
- 214. Haibin Ling, Xingwei Yang, and Longin Jan Latecki. "Balancing Deformability and Discriminability for Shape Matching", European Conf. on Computer Vision (ECCV), 411–424, 2010.
- 215. Nianhua Xie, Haibin Ling, Weiming Hu, and X. Zhang. "Use Bin-Ratio Information for Category and Scene Classification", in *Proc. of IEEE Conf. on Computer Vision and Pattern Recognition (CVPR)*, pp. 2313–2319, San Francisco, 2010.
- 216. Yong Xu, Xiong Yang, Haibin Ling, and Hui Ji. "A New Texture Descriptor Using Multifractal Analysis in Multi-orientation Wavelet Pyramid", in *Proc. of IEEE Conf. on Computer Vision and Pattern Recognition (CVPR)*, pp. 161–168, San Francisco, 2010.
- 217. Erkang Cheng, Nianhua Xie, Haibin Ling, Predrag Bakic, Andrew Maidment, and Vasileios Megalooikonomou. "Mammographic Image Classification Using Histogram Intersection", in Proc. of the 7th IEEE Int'l Symp. on Biomedical Imaging (ISBI), 197–200, Rotterdam, The Netherlands, 2010.
- 218. Tatyana Nuzhnaya, Michael Barnathan, Haibin Ling, Vasileios Megalooikonomou, Predrag Bakic, and Andrew Maidment. "Probabilistic Branching Node Detection using Adaboost and Hybrid Local Features", in Proc. of the 7th IEEE Int'l Symp. on Biomedical Imaging (ISBI), 221-224, Rotterdam, The Netherlands, 2010.
- 219. Xue Mei and Haibin Ling, "Robust Visual Tracking using L1 Minimization", in Proc. of the IEEE Int'l Conf. on Computer Vision (ICCV), pp. 1436-1453, Kyoto, Oct. 2009.
- 220. Xue Mei, Haibin Ling, and David Jacobs, "Sparse Representation of Cast Shadows via L1-Regularized Least Squares", in *Proc. of the IEEE Int'l Conf. on Computer Vision (ICCV)*, pp. 583–590, Kyoto, Oct. 2009.

- 221. ChengEn Lu, Longin Jan Latecki, Nagesh Adluru, Xingwei Yang, and Haibin Ling, "Shape Guided Contour Grouping with Particle Filters", in Proc. of the IEEE Int'l Conf. on Computer Vision (ICCV), pp. 2288–2295, Kyoto, Oct. 2009.
- 222. Wei Zhang, Haibin Ling, Simone Prummer, Shaohua Kevin Zhou, Martin Ostermeier, and Dorin Comaniciu, "Coronary Tree Extraction Using Motion Layer Separation", In Proc. of the Int'l Conf. on Medical Image Computing and Computer Assisted Intervention (MICCAI), pp. 116–123, 2009.
- 223. Haibin Ling, Michael Barnathan, Vasileios Megalooikonomou, Predrag Bakic, and Andrew Maidment. "Probabilistic Branching Node Detection using Hybrid Local Features", in Proc. of the 6th IEEE Int'l Symp. on Biomedical Imaging (ISBI), 233–236, 2009.
- 224. Yefeng Zheng, Bogdan Georgescu, Haibin Ling, Shaohua Zhou, Michael Suehling, and Dorin Comaniciu. "Constrained Marginal Space Learning for Efficient 3D Anatomical Structure Detection in Medical Images." In Proc. of the IEEE Conf. on Computer Vision and Pattern Recognition (CVPR), pp. 194-201, 2009.
- 225. Peter Belhumeur, Daozheng Chen, Steven Feiner, David Jacobs, John Kress, Haibin Ling, Ida Lopez, Ravi Ramamoorthi, Sameer Sheorey, Sean White, and Ling Zhang, "Searching the world's herbaria: a system for visual identification of plant species", *European Conf. on Computer Vision (ECCV)*, 4:116-129, 2008.
- 226. Haibin Ling, Shaohua Zhou, Yefeng Zheng, Bogdan Georgescu, Michael Suehling, and Dorin Comaniciu, "Hierarchical, Learning-based Automatic Liver Segmentation", in *Proc. of the IEEE Conf. on Computer Vision and Pattern Recognition (CVPR)*, Anchorage, AK, USA, June 2008.
- 227. Haibin Ling and Stefano Soatto, "Proximity Distribution Kernels for Geometric Context in Category Recognition", in *Proc. of the IEEE Int'l Conf. on Computer Vision (ICCV)*, Rio de Janeiro, Brazil, Oct. 2007.
- 228. Haibin Ling, Stefano Soatto, N. Ramanathan, and David Jacobs, "A Study of Face Recognition as People Age", in *Proc. of the IEEE Int'l Conf. on Computer Vision (ICCV)*, Rio de Janeiro, Brazil, Oct. 2007.
- 229. Haibin Ling and Kazunori Okada. "Diffusion Distance for Histogram Comparison", in *Proc.* of the IEEE Conf. on Computer Vision and Pattern Recognition (CVPR), I:246-253, New York, NY, USA, June 2006.
- 230. Haibin Ling and Kazunori Okada. "EMD-L₁: An Efficient and Robust Algorithm for Comparing Histogram-Based Descriptors", *European Conf. on Computer Vision (ECCV)*, LNCS 3953, III:330-343, Graz, Austria, May 2006.
- 231. Haibin Ling and David Jacobs. "Deformation Invariant Image Matching", in *Proc. of the IEEE Int'l Conf. on Computer Vision (ICCV)*, II:1466-1473, Beijing, China, October 2005.
- 232. Haibin Ling and David Jacobs. "Using the Inner-Distance for Classification of Articulated Shapes", in Proc. of the IEEE Conf. on Computer Vision and Pattern Recognition (CVPR), II:719-726, San Diego, CA, USA, June 2005.
- 233. Bongwon Suh, Haibin Ling, Ben Bederson, and David Jacobs. "Automatic Thumbnail Cropping and Its Effectiveness," ACM Symposium on User Interface Software and Technology (UIST), CHI Letters, 5(2), pp. 95-104, 2003. (Best Student Paper)

Selected Other Refereed Conference Publication

234. Semir Elezovikj, Jianqing Jia, Chiu C. Tan, and Haibin Ling. "PartLabeling: A Label Management Framework in 3D Space." Computer Graphics International (CGI), 2023.

- 235. Yunfan Li, Himanshu Gupta, Haibin Ling, IV Ramakrishnan, Georgios Georgakis, Aaron Sasson, and Prateek Prasanna. "Automated Assessment of Critical View of Safety in Laparoscopic Cholecystectomy." Proc. IEEE Int'l Conf. on Healthcare Informatics (IEEE-ICHI), 2023.
- 236. Peng Chu, Jiang Wang, Quanzheng You, Haibin Ling, and Zicheng Liu. "TransMOT: Spatial-Temporal Graph Transformer for Multiple Object Tracking." Proc. IEEE Winter Conf. on Applications of Computer Vision (WACV), 2023.
- 237. Yifeng Ding, Shaoguo Wen, Jiyang Xie, Dongliang Chang, Zhanyu Ma, Zhongwei Si, Ming Wu, and Haibin Ling. "Channel DropBlock: An Improved Regularization Method for Fine-Grained Visual Classification." Proc. of British Machine Vision Conference (BMVC), 2021.
- 238. Fan Yang, Srikrishna Karanam, Meng Zheng, Terrence Chen, Haibin Ling, and Ziyan Wu. "Multi-motion and Appearance Self-Supervised Moving Object Detection." Proc. IEEE Winter Conf. on Applications of Computer Vision (WACV), 2101-2110, 2022.
- 239. Yasha Singh, Vivek Atulkar, Jiaxiang Ren, Jie Yang, Heng Fan, Longin Jan Latecki, and Haibin Ling. "Osteoporosis Prescreening and Bone Mineral Density Prediction using Dental Panoramic Radiographs," Proc. of IEEE Engineering in Medicine and Biology Society (EMBC), 2021.
- 240. Heng Fan and Haibin Ling. "MART: Motion-Aware Recurrent Neural Network for Robust Visual Tracking." Proc. IEEE Winter Conf. on Applications of Computer Vision (WACV), 2021.
- 241. Heng Fan, Fan Yang, Peng Chu, Yuewei Lin, Lin Yuan, and Haibin Ling. "TracKlinic: Diagnosis of Challenge Factors in Visual Tracking," *Proc. IEEE Winter Conf. on Applications* of Computer Vision (WACV), 2021.
- 242. Zhuoying Wang, Yongtao Wang, Zhi Tang, Yangyan Li, Ying Chen, Haibin Ling, and Weisi Lin. "GSTO: Gated Scale-Transfer Operation for Multi-Scale Feature Learning in Semantic Segmentation." In Proc. of the Int'l Conf. on Pattern Recognition (ICPR), 2021.
- 243. Jiaxiang Ren, Heng Fan, Jie Yang, and Haibin Ling. "Detection of Trabecular Landmarks for Osteoporosis Prescreening in Dental Panoramic Radiographs," Proc. IEEE Engineering in Medicine and Biology Society (EMBC), 2020.
- 244. Sijia Yu, Peng Chu, Jie Yang, Bingyao Huang, Fan Yang, Vasileios Megalooikonomou, and Haibin Ling. "Multitask Osteoporosis Prescreening Using Dental Panoramic Radiographs with Feature Learning." *IEEE/ACM Conf. on Connected Health: Applications, Systems, and Engineering Technologies (CHASE)*, 2019.
- 245. Peng Chu, Heng Fan, Chiu C. Tan, and Haibin Ling. "Online Multi-Object Tracking with Instance-Aware Single-Object Tracking and Dynamic Model Refreshment," Proc. IEEE Winter Conf. on Applications of Computer Vision (WACV), pp. 161-170, 2019.
- 246. Heng Fan, Peng Chu, Longin J. Latecki, and Haibin Ling. "Scene Parsing via Dense Recurrent Neural Networks with Attentional Selection," Proc. IEEE Winter Conf. on Applications of Computer Vision (WACV), pp. 1816-1825: 2019.
- 247. Bingyao Huang, Samed Ozdemir, Ying Tang, Chunyuan Liao, and Haibin Ling. "A Singleshot-per-pose Camera-Projector Calibration System For Imperfect Planar Targets." in Adjunct Proc. of Int'l Symp. on Mixed and Augmented Reality (ISMAR), 2018.
- 248. Fan Yang, Fariborz Soroush, Ge Deng, Sijia Yu, Peng Chu, Mohammad F. Kiani, and Haibin Ling. "Multiple neutrophils tracking in vitro array using high-order temporal information", *Proc. IEEE Engineering in Medicine and Biology Society (EMBC)*, 2018.

- 249. Peng Chu, Chunjuan Bo, Xin Liang, Jie Yang, Vasileios Megalooikonomou, Fan Yang, Bingyao Huang, Xinyi Li, and Haibin Ling. "Using Octuplet Siamese Network for Osteoporosis Analysis on Dental Panoramic Radiographs", Proc. IEEE Engineering in Medicine and Biology Society (EMBS), 2018.
- 250. Ning Chen, Yu Chen, Erik Blasch, Haibin Ling, Yang You, and Xinyue Ye. "Enabling Smart Urban Surveillance at The Edge," in *Proc. of the IEEE Int'l Conf. on Smart Cloud* (SmartCloud), 2017.
- 251. Shuai Di, Honggang Zhang, Xue Mei, Danil Prokhorov, and Haibin Ling. "A Benchmark for Cross-Weather Traffic Scene Understanding." In Proc. of Int'l Conf. on Intelligent Transportation Systems (ITSC), 2016.
- 252. Yuxi Wang, Yue Liu, Zhuwen Li, Loong-Fah Cheong, and Haibin Ling. "Visual tracking via sparsity pattern learning." In Proc. of the Int'l Conf. on Pattern Recognition (ICPR), 2016.
- 253. Heng Fan, Xue Mei, Danil Prokhorov, and Haibin Ling. "Cross Datasets Vegetation Detection with Spatial Prior and Local Context," in *Proc. of IEEE Intelligent Vehicles Symposium (IV)*, 2016.
- 254. Ning Chen, Yu Chen, Yang You, Haibin Ling, Pengpeng Liang, and Roger Zimmermann. "Dynamic Urban Surveillance Video Stream Processing Using Fog Computing," in *Proc. of IEEE International Conference on Multimedia Big Data*, 2016.
- 255. Meng Yi, Fan Yang, Erik Blasch, Carolyn Sheaff, Kui Liu, Genshe Chen, and Haibin Ling. "Vehicle Classification in WAMI Imagery using Deep Network," in SPIE Conf. on Defense Security+Sensing, 2016.
- 256. Yu Chen, Erik Blasch, Ryan Wu, Bingwei Liu, Anna Deng, Haibin Ling, and Genshe Chen. "Real-Time WAMI Streaming Target Tracking in Fog," in *SPIE Conf. on Defense Security+Sensing*, 2016.
- 257. Erkang Cheng, Ling Zhu, Jie Yang, Azhari Azhari, Suhardjo Sitam, Xin Liang, Vasileios Megalooikonomou, and Haibin Ling. "Learning-based landmark detection for osteoporosis analysis", in *Proc. SPIE Medical Imaging*, 2016. http://dx.doi.org/10.1117/12.2216455
- 258. Zilong Zou, Jie Yang, Vasileios Megalooikonomou, Rachid Jennane, Erkang Cheng, and Haibin Ling. "Trabecular Bone Texture Classification Using Wavelet Leaders", in *Proc.* SPIE Medical Imaging, 2016.
- 259. Philip Riesch, Xiaojiang Du, Haibin Ling and Michael J. Mayhew. "Face Recognition with Environment Tolerance on a Mobile Device." In *Proc. of IEEE Int'l Conf. on Cyber Security* and Cloud Computing, 2015.
- 260. Houwen Peng, Kai Li, Bing Li, Haibin Ling, Weihua Xiong, and Weiming Hu. "Predicting Image Memorability by Multi-view Adaptive Regression." In Proc. of ACM Multimedia Conference (MM), 1147-1150, 2015.
- 261. Shuai Di, Honggang Zhang, Xue Mei, Danil Prokhorov, and Haibin Ling. "Spatial Prior for Nonparametric Road Scene Parsing." In Proc. of Int'l Conf. on Intelligent Transportation Systems (ITSC), 2015.
- 262. Xiaoqing Lu, Lu Liu, Zhi Tang and Haibin Ling. "Overlapped-Triangle Analysis with Hierarchical Ranking of Dominance," In Proc. Int'l Conf. on Document Analysis and Recognition (ICDAR), 2015.
- 263. Erik Blasch, Dan Shen, Genshe Chen, Arslan Basharat, Roddy Collins, Haibin Ling, Riad Hammoud, Alex Aved, and James Nagy. "Video-to-Text Information Fusion Evaluation for Level 5 User Refinement." In Proc. of the Int'l Conf. on Information Fusion (FUSION), 2015.

- 264. Yu Pang, Xinchu Shi, Bin Jia, Erik Blasch, Carolyn Sheaff, Khanh Pham, Genshe Chen, and Haibin Ling. "Multiway Histogram Intersection for Multi-target Tracking." In Proc. of the Int'l Conf. on Information Fusion (FUSION), 2015.
- 265. Ryan Wu, Bingwei Liu, Yu Chen, Erik Blasch, Haibin Ling, and Genshe Chen. "Pseudo-Real-Time Wide Area Motion Imagery (WAMI) Processing for Dynamic Feature Detection." In Proc. of the Int'l Conf. on Information Fusion (FUSION), 2015.
- 266. Joseph Catrambone, Ismail Amzovski, Zhonghai Wang, Erik Blasch, Carolyn Sheaff, Genshe Chen, and Haibin Ling. "A benchmark for vehicle detection on wide area motion imagery", in SPIE Conf. on Defense Security+Sensing, 2015.
- 267. Erik Blasch, Zhonghai Wang, Dan Shen, Genshe Chen, and Haibin Ling. "Enhanced air operations for ground situational awareness", *IEEE/AIAA Digital Avionics Systems Conference* (DASC), pp 3D2-1–3D2-13, 2014.
- 268. Bin Jia, Haibin Ling, Erik Blasch, Carolyn Sheaff, Genshe Chen, and Zhonghai Wang. "Aircraft ground monitoring with high performance computing multicore enabled video tracking", *IEEE/AIAA Digital Avionics Systems Conference (DASC)*, pp 6B2-1–6B2-9, 2014.
- 269. Pengpeng Liang, Yi Wu, Xue Mei, Jingyi Yu, Erik Blasch, Haitao Lang, D. Prokhorov, Chunyuan Liao, and Haibin Ling. "Blur-Resilient Tracking Using Group Sparsity." In Proc. of Asian Conf. on Computer Vision (ACCV), 2014.
- 270. Liang Du, Meng Yi, Erik Blasch, and Haibin Ling. "GARP-Face: Balancing Privacy Protection and Utility Preservation in Face De-identification." In Proc. of IEEE Int'l Joint Conf. on Biometrics (IJCB), 2014.
- 271. Erik Blasch, James Nagy, Alex Aved, W.M. Pottenger, M. Schneider, Riad Hammoud, E. Jones, Arslan Basharat, A. Hoogs, Genshe Chen, Dan Shen, and Haibin Ling. "Context aided Video-to-text Information Fusion." In Proc. of the Int'l Conf. on Information Fusion (FUSION), 2014.
- 272. Xinqing Guo, Jin Sun, Zhan Yu, Haibin Ling, and Jingyi Yu. "Mobile Multi-Flash Photography." In *Proceedings of SPIE conference of Digital Photography*, 2014.
- 273. Erik Blasch, Zhonghai Wang, Dan Shen, Haibin Ling, and Genshe Chen. "Surveillance of ground vehicles for airport security," in SPIE Conf. on Defense Security+Sensing, paper 9089-11, 2014.
- 274. Erik Blasch, Guna Seetharaman, S. Suddarth, Kannappan Palaniappan, Genshe Chen, Haibin Ling, A. Basharat. "Summary of Methods in Wide-Area Motion Imagery (WAMI)," in SPIE Conf. on Defense Security+Sensing, paper 9089-12, 2014.
- 275. Erkang Cheng, Liya Ma, Adam Blaisse, Erik Blasch, Carolyn Sheaff, Genshe Chen, Jie Wu and Haibin Ling. "Efficient Feature Extraction from Wide Area Motion Imagery by MapReduce in Hadoop," in SPIE Conf. on Defense Security+Sensing, paper 9089-19, 2014.
- 276. Keqiang Li, Lu Liu, Xiaoqing Lu, Tianxiao Feng, Haibin Ling, and Zhi Tang. "Detection of Overlapped Quadrangles in Plane Geometric Figures," in Proc. Int'l Conf. on Document Analysis and Recognition (ICDAR), 2013.
- 277. Xinchu Shi, Peiyi Li, Weiming Hu, Erik Blasch, and Haibin Ling. "Using Maximum Consistency Context for Multiple Target Association in Wide Area Traffic Scenes," in Proc. Int'l Conf. on Acoustics, Speech and Signal Processing (ICASSP), 2013.
- 278. Pengpeng Liang, Haibin Ling, Erik Blasch, Guna Seetharaman, Dan Shen, and Genshe Chen. "Vehicle Detection in Wide Area Aerial Surveillance using Temporal Context." In Proc. of the Int'l Conf. on Information Fusion (FUSION), 2013.

- 279. Semir Elezovikj, Haibin Ling, and Xiufang Chen. "Foreground and Scene Structure Preserved Visual Privacy Protection using Depth Information". in Proc. of the IEEE Int'l Conf. on Multimedia and Expo (ICME), 2013.
- 280. Jianjun Gao, Haibin Ling, Erik Blasch, Khanh Pham, Zhonghai Wang, and Genshe Chen. "Pattern of Life from WAMI Objects Tracking Based on Visual Context-Awareness and Infusion Network Model," in SPIE Conf. on Defense Security+Sensing, 2013. (Invited Paper)
- 281. Dan Shen, Haotian Xu, Erik Blasch, Khanh Pham, G. Horvath, Zhonghai Wang, Haibin Ling, and Genshe Chen. "A Holistic Image Segmentation Framework for Cloud Detection and Extraction," in SPIE Conf. on Defense Security+Sensing, 2013.
- 282. Xinchu Shi, Weiming Hu, Yun Cheng, Genshe Chen, Erik Blasch, Jinging Ji, and Haibin Ling. "Infrared Target Tracking Using Multiple Instance Learning with Adaptive Motion Prediction and Spatially Template Weighting," in SPIE Conf. on Defense Security+Sensing, 2013.
- 283. Yu Pang, Dan Shen, Genshe Chen, Pengpeng Liang, Khanh Pham, Erik Blasch, Zhonghai Wang, and Haibin Ling. "Low Frame Rate Target Localization and Tracking in Testbed," in SPIE Conf. on Defense Security+Sensing, 2013.
- 284. Pengpeng Liang, Dan Shen, Erik Blasch, Khanh Pham, Zhonghai Wang, Genshe Chen, and Haibin Ling. "Spatial Context for Moving Vehicle Detection in Wide Area Motion Imagery with Multiple Kernel Learning," in *SPIE Conf. on Defense Security+Sensing*, 2013.
- 285. Erik Blasch, Paulo Cesar G. da Costa, Kathryn B. Laskey, Haibin Ling, and Genshe Chen. "The URREF Ontology for Semantic Wide Area Motion Imagery Exploitation", in Proc. Int'l Conf. on Semantic Technologies for Intelligence, Defense, and Security (STIDS), 2012.
- 286. Erik Blasch, Paulo Cesar G. da Costa, Kathryn Laskey, Haibin Ling, and Genshe Chen. "URREF Ontology Applied to Motion Imagery", in *Proc. of IEEE National Aerospace & Electronics Conference (NAECON)*, 2012.
- 287. Erik Blasch, Haibin Ling, Yi Wu, Guna Seetharaman, Mike Talbert, Li Bai, and Genshe Chen. "Dismount tracking and identification from electro-optical imagery," in SPIE Conf. on Defense Security+Sensing, 8402-18, 2012.
- 288. Yi Wu, Genshe Chen, Erik Blasch, Li Bai, and Haibin Ling. "Feature-based background registration in wide-area motion imagery", in SPIE Conf. on Defense Security+Sensing, 8402-03, 2012.
- 289. Pengpeng Liang, Gregory Teodoro, Haibin Ling, Erik Blasch, Genshe Chen, and Li Bai. "Multiple Kernel Learning for Vehicle Detection in Wide Area Motion Imagery." In Proc. of the Int'l Conf. on Information Fusion (FUSION), 2012.
- 290. Liang Du and Haibin Ling. "Preservative License Plate De-identification for Privacy Protection," in *Int'l Conf. on Document Analysis and Recognition (ICDAR)*, pp. 68-472, Beijing, China, 2011.
- 291. Xinchu Shi, Haibin Ling, Erik Blasch, and Weiming Hu. "Context-Driven Moving Vehicle Detection in Wide Area Motion Imagery." In Proc. of the Int'l Conf. on Pattern Recognition (ICPR), 2012.
- 292. Jianguo Song, Xiaoqing Lu, Haibin Ling, Xiao Wang, and Zhi Tang. "Envelope Extraction for Composite Shapes for Shape Retrieval." In Proc. of the Int'l Conf. on Pattern Recognition (ICPR), 2012.
- 293. Yi Wu, Fangfang Xie, Jie Yang, Erkang Cheng, Vasileios Megalooikonomou, and Haibin Ling. "Computer aided periapical lesion diagnosis using quantized texture analysis," in *Proc. SPIE Medical Imaging*, 8315-43, 2012.

- 294. Yi Wu, Fangfang Xie, Jie Yang, Erkang Cheng, Vasileios Megalooikonomou, and Haibin Ling. "Automatic detection of apical roots in oral radiographs," in *Proc. SPIE Medical Imaging*, 8315-93, 2012.
- 295. Yixiao Zhou, Yan Huang, Haibin Ling, and Jingliang Peng. "Medical image retrieval based on texture and shape feature co-occurrence," in *Proc. SPIE Medical Imaging*, 8315-61, 2012.
- 296. Tatyana Nuzhnaya, Predrag Bakic, Despina Kontos, Vasileios Megalooikonomou, and Haibin Ling. "Segmentation of anatomical branching structures based on texture features and conditional random field," in *Proc. SPIE Medical Imaging*, 8314-54, 2012.
- 297. Yi Wu, Haibin Ling, Erik Blasch, Li Bai, and Genshe Chen. "Visual Tracking based on Log-Euclidean Riemannian Sparse Representation," In Proc. of the Int'l Symposium on Visual Computing (ISVC), 2011.
- 298. Yi Wu, Jing Hu, Feng Li, Erkang Cheng, Jingyi Yu, and Haibin Ling. "Kernel-based Motionblurred Target Tracking," In Proc. of the Int'l Symposium on Visual Computing (ISVC), 2011.
- 299. Yi Wu, Erik Blasch, Genshe Chen, Li Bai, and Haibin Ling. "Multiple Source Data Fusion via Sparse Representation for Robust Visual Tracking." In Proc. of the Int'l Conf. on Information Fusion (FUSION), 2011.
- 300. Haibin Ling, Yi Wu, Erik Blasch, Genshe Chen, Haitao Lang, and Li Bai. "Evaluation of Visual Tracking in Extremely Low Frame Rate Wide Area Motion Imagery." In Proc. of the Int'l Conf. on Information Fusion (FUSION), 2011.
- 301. Erkang Cheng, Jinwu Chen, Jie Yang, Huiyang Deng, Yi Wu, Vasileios Megalooikonomou, Bryce Gable, and Haibin Ling. "Automatic Dent-landmark Detection in 3-D CBCT Dental Volumes", Proc. IEEE Engineering in Medicine and Biology Society (EMBS), pp. 6204-6207, Boston, 2011.
- 302. Erkang Cheng, Shawn McLaughlin, Vasileios Megalooikonomou, Predrag Bakic, Andrew Maidment, and Haibin Ling. "Learning-based vessel segmentation in mammographic images," in *IEEE Int'l Conf. on Healthcare Informatics, Imaging and Systems Biology*, 2011.
- 303. Xinchu Shi, Xiaoqin Zhang, Yang Liu, Weiming Hu, and Haibin Ling. "Multi-cue Based Multi-target Tracking Using Online Random Forests," in Proc. Int'l Conf. on Acoustics, Speech and Signal Processing (ICASSP), 2011.
- 304. Erkang Cheng, Haibin Ling, Predrag Bakic, Andrew Maidment, Vasileios Megalooikonomou. "Automatic Detection of Regions of Interest in Mammographic Images," in *Proc. SPIE Medical Imaging*, Orlando, 2011.
- 305. Tatyana Nuzhnaya, Vasileios Megalooikonomou, Haibin Ling, Mark Kohn, Robert Steiner. "Classification of texture patterns in CT lung imaging," in *Proc. SPIE Medical Imaging*, Orlando, 2011.
- 306. Jin Sun, Christopher Thorpe, Nianhua Xie, Jingyi Yu, and Haibin Ling. "Category Classification Using Occluding Contours," In Proc. of the Int'l Symposium on Visual Computing (ISVC), 296-305, 2010.
- 307. Gregory Johnson, Nianhua Xie, Jill Slaboda, Justin Y. Shi, Emily Keshner, and Haibin Ling. "Efficient Marker Matching Using Pair-wise Constraints in Physical Therapy," In Proc. of the Int'l Symposium on Visual Computing (ISVC), 222-231, 2010.
- 308. Nianhua Xie, Haibin Ling, and Weiming Hu. "Image Set Classification using Multi-Layer Multiple Instance Learning with Application to Cannabis Website Classification." In Proc. of IEEE/WIC/ACM Int'l Conf. on Web Intelligence (WI), 58-65, regular paper, Toronto, 2010.

- 309. Qingdi Wei, Xiaoqin Zhang, Weiming Hu, and Haibin Ling. "Compact Visual Codebook for Action Recognition." In Proc. of IEEE Int'l Conf. on Image Processing (ICIP), 3805–3808, Hong Kong, China, 2010.
- 310. Haibin Ling, Li Bai, Erik Blasch, and Xue Mei. "Robust Infrared Vehicle Tracking across Target Pose Change using L1 Regularization." In Proc. of the Int'l Conf. on Information Fusion (FUSION), Edinburgh, UK, 2010.
- 311. Wei Li, Xiaoqin Zhang, Jianjun Gao, Weiming Hu, Haibin Ling, and Xue Zhou. "Discriminative Level Set for Contour Tracking." In Proc. of the Int'l Conf. on Pattern Recognition (ICPR), 1735-1738, Istanbul, Turkey, 2010.
- 312. Qingdi Wei, Xiaoqin Zhang, Yu Kong, Weiming Hu, and Haibin Ling. "Group Action Recognition Using Space-Time Interest Points." In Proc. of the 5th Int'l Symposium on Visual Computing (ISVC), Vol. 2, pp. 757–766, 2009.
- 313. Albert Montillo and Haibin Ling. "Age Regression from Faces Using Random Forests". In *Proc. of IEEE Int'l Conf. on Image Processing (ICIP)*, Cairo, Egypt, 2009.
- 314. Xin Li and Haibin Ling. "Learning Based Thumbnail Cropping". in Proc. of the IEEE Int'l Conf. on Multimedia and Expo (ICME), pp. 558-561, 2009.

Refereed Workshop Publication

- 315. Gautham Ramajayam, Tao Sun, Chiu C. Tan, Lannan Luo, and Haibin Ling. "Saliency-Aware Privacy Protection in Augmented Reality Systems." In the *First Workshop on Meta*verse Systems and Applications (MetaSys), 2023.
- 316. Matej Kristan, Ales Leonardis, Jiri Matas, ..., Haibin Ling, et al. "The Tenth Visual Object Tracking VOT2022 Challenge Results." In the VOT 2022 Challenge in conjunction with ECCV, 2022.
- 317. Heng Fan, Longyin Wen, Dawei Du, Pengfei Zhu, Qinghua Hu, Haibin Ling, Mubarak Shah, et al. "VisDrone-SOT2020: The Vision Meets Drone Single Object Tracking Challenge Results." In ECCV Workshops (4): 728-749, 2020.
- 318. Heng Fan, Dawei Du, Longyin Wen, Pengfei Zhu, Qinghua Hu, Haibin Ling, Mubarak Shah, et al. "VisDrone-MOT2020: The Vision Meets Drone Multiple Object Tracking Challenge Results." In ECCV Workshops (4): 713-727, 2020.
- 319. Dawei Du, Longyin Wen, Pengfei Zhu, Heng Fan, Qinghua Hu, Haibin Ling, Mubarak Shah, et al. "VisDrone-DET2020: The Vision Meets Drone Object Detection in Image Challenge Results." In *ECCV Workshops* (4) : 692-712, 2020.
- 320. Dawei Du, Longyin Wen, Pengfei Zhu, Heng Fan, Qinghua Hu, Haibin Ling, Mubarak Shah, et al. "VisDrone-CC2020: The Vision Meets Drone Crowd Counting Challenge Results." In *ECCV Workshops* (4) : 675-691, 2020.
- 321. Sarah Lehman, Abrar S. Alrumayh, Haibin Ling, and Chiu C. Tan. "Stealthy Privacy Attacks Against Mobile AR Apps." International Workshop on Security and Privacy in the Cloud (SPC), 2020.
- 322. Longyin Wen, Pengfei Zhu, Dawei Du, Xiao Bian, Haibin Ling, Qinghua Hu, et al. "VisDrone-MOT2019: The Vision Meets Drone Multiple Object Tracking Challenge Results." In the Vision Meets Drone (VisDrone2019) Workshop in conjunction with ICCV, 2019.
- 323. Dawei Du, Pengfei Zhu, Longyin Wen, Xiao Bian, Haibin Ling, Qinghua Hu, et al. "VisDrone-SOT2019: The Vision Meets Drone Single Object Tracking Challenge Results." In the Vision Meets Drone (VisDrone2019) Workshop in conjunction with ICCV, 2019.

- 324. Pengfei Zhu, Dawei Du, Longyin Wen, Xiao Bian, Haibin Ling, Qinghua Hu, et al. "VisDrone-VID2019: The Vision Meets Drone Object Detection in Video Challenge Results." In the Vision Meets Drone (VisDrone2019) Workshop in conjunction with ICCV, 2019.
- 325. Jinzhan Su, Zhe Wang, Chunyuan Liao, and Haibin Ling. "Efficient and Accurate Face Alignment by Global Regression and Cascaded Local Refinement." In the *IEEE Int'l Workshop on Analysis and Modeling of Faces and Gestures (AMFG)*, pp. 267–276, 2019.
- 326. Matej Kristan, Ales Leonardis, Jiri Matas, ..., Haibin Ling, et al. "The sixth Visual Object Tracking VOT2018 challenge results." In the VOT 2018 Challenge in conjunction with ECCV, 2018.
- 327. Pengfei Zhu, Longyin Wen, Dawei Du, Xiao Bian, Haibin Ling, Qinghua Hu, et al. "VisDrone-DET2018: The Vision Meets Drone Object Detection in Image Challenge Results." In the Vision Meets Drone (VisDrone2018) Workshop in conjunction with ECCV, 2018.
- 328. Longyin Wen, Pengfei Zhu, Dawei Du, Xiao Bian, Haibin Ling, Qinghua Hu, et al. "VisDrone-SOT2018: The Vision Meets Drone Single-Object Tracking Challenge Results." In the Vision Meets Drone (VisDrone2018) Workshop in conjunction with ECCV, 2018.
- 329. Pengfei Zhu, Longyin Wen, Dawei Du, Xiao Bian, Haibin Ling, Qinghua Hu, et al. "VisDrone-VDT2018: The Vision Meets Drone Video Detection and Tracking Challenge Results." In the Vision Meets Drone (VisDrone2018) Workshop in conjunction with ECCV, 2018.
- 330. Heng Fan and Haibin Ling. "SANet: Structure-Aware Network for Visual Tracking." In the CVPR 2017 Workshop on DeepVision: Temporal Deep Learning, 2017.
- 331. Heng Fan, Xue Mei, Danil V. Prokhorov, Haibin Ling. "RGB-D Scene Labeling with Multimodal Recurrent Neural Networks." In *IEEE Workshop on Perception Beyond the Visible Spectrum* in conjunction with CVPR, 2017.
- 332. Liang Du, Haitao Lang, Ying-Li Tian, Chiu C. Tan, Jie Wu, and Haibin Ling. "Covert Video Classification by Codebook Growing Pattern." in *Int'l Workshop on Moving Cameras Meet Video Surveillance: From Body Cameras to Drones* in conjunction with CVPR, 2016.
- 333. Kui Liu, Bingwei Liu, Erik Blasch, Dan Shen, Zhonghai Wang, Haibin Ling, and Genshe Chen. "A Cloud Infrastructure for Target Detection and Tracking Using Audio and Video Fusion." in Int'l Workshop on Perception Beyond the Visual Spectrum (PBVS) in conjunction with CVPR, 2015.
- 334. Haitao Lang, Yuyang Xi, Jianying Hu, Liang Du, and Haibin Ling. "Scene Classification by Feature Co-occurrence Matrix", in Proc. of the Scene Understanding for Autonomous Systems Workshop (SUAS) in conjunction with ACCV, 2014.
- 335. Erik Blasch, Zhonghai Wang, Haibin Ling, Kannappan Palaniappan, Genshe Chen, Dan Shen, Alex Aved, and Guna Seetharaman. "Video-Based Activity Analysis Using the L1 Tracker on VIRAT Data," in Proc. IEEE Applied Imagery Pattern Recognition (AIPR) Workshop, 2013.
- 336. Erik Blasch, Guna Seetharaman, Kannappan Palaniappan, Haibin Ling, and Genshe Chen. "Wide-Area Motion Imagery (WAMI) Exploitation Tools for Enhanced Situation Awareness," in Proc. IEEE Applied Imagery Pattern Recognition (AIPR) Workshop: Computer Vision: Time for Change, 2012.
- 337. Wei Li, Xiaoqin Zhang, Wenhan Luo, Weiming Hu, Haibin Ling, and Ou Wu. "Robust object tracking with boosted discriminative model via graph embedding," in *Proc. of the IEEE Int'l Workshop on Visual surveillance*, 1666–1672, 2011.

- 338. Erik Blasch, Guna Seetharaman, Mike Talbert, Kannappan Palaniappan, and Haibin Ling. "Key Elements to Support Layered Sensing Dismount Tracking," in Proc. NATO SET 178-RWS 017 Workshop on Detection of Dismounted Combatants, Ottawa, ON, Sept. 2011.
- 339. Sajjad Baloch, Erkang Cheng, Ying Zhu, Ashraf Mohamed, Haibin Ling, and Tong Fang. "Shape based Conditional Random Fields for Segmenting Intracranial Aneurysms," in *Proc.* of the Workshop on Mesh Processing in Medical Image Analysis in conjunction with MICCAI, 2011.
- 340. Wei Li, Xiaoqin Zhang, Nianhua Xie, Weiming Hu, Wenhan Luo, and Haibin Ling. "Probabilistic Index Histogram for Robust Object Tracking," in *Proc. of the Tenth Int'l Workshop on Visual Surveillance*, Queenstown, New Zealand, 2010.
- 341. Xiaoqin Zhang, Weiming Hu, Xiangyang Wang, Yu Kong, Nianhua Xie, Hanzi Wang, Haibin Ling, and Stephen Maybank. "A Swarm Intelligence Based Searching Strategy for Articulated 3D Human Body Tracking". In Proc. of IEEE Workshop on 3D Information Extraction for Video Analysis and Mining in conjunction with CVPR, San Francisco, 2010.

CONTRACTS AND GRANTS

- Haibin Ling. (1/15/2023 1/14/2025) "Efficient, Robust and Explainable Situational Assessment and Awareness AI/ML System Using Multi-Modal Sensing and Deep Learning Approaches," subcontract from City University of New York, \$150,000 (SBU share).
- Haibin Ling (02/2023 08/2025) "Transformative Biohybrid Diiron Catalysts for C-H Bond Functionalization," subcontract from *Brookhaven Science Associates LLC*, \$177,590 (SBU share).
- Yingtian Pan, Congwu Du, Haibin Ling. (01/2023 12/2024) "Imaging neuronal, astrocytic and vascular synchronization to assess cocaine's effects on mPFC," *National Institutes of Health*, \$416,248.
- Shen-Shyang Ho (PI at Rowan University), Haibin Ling (PI at SBU), Jungme Park (PI at Kettering University), Jie Wu (PI at Temple University). (10/1/2021 9/30/2024) "Cooperative AI Inference in Vehicular Edge Networks for Advanced Driver-Assistance Systems," National Science Foundation, \$295,386 (SBU share).
- Himanshu Gupta (PI), Haibin Ling (co-PI), Omkant Pandey (co-PI). (10/1/2021 9/30/2024) "Secured Spectrum Allocation and Patrolling Management in Shared Spectrum Systems," *National Science Foundation*, \$414,993.
- Haibin Ling. (10/1/2020 9/30/2023) "Improve Visual Tracking by Large Scale Learning, Diagnosis, and Evaluation," *National Science Foundation*, \$498,330.

Completed

- Haibin Ling. (9/15/2021 9/14/2022) "Image Feature Domain Adaptation and Visual Super Resolution," Ai Xmotors, \$80,000 (research gift).
- Longin J. Latecki (PI), Haibin Ling (co-PI). (Sep. 1, 2018 Aug. 31, 2022) " Learning shape features with deep neural networks", *National Science Foundation*, \$450,000.
- Haibin Ling (6/16/2020 9/15/2020) "Detect, track and Re-identify Structures in Multiple Material Image Sequences," *Brookhaven Science Associates LLC*, \$18,904.
- Chiu C. Tan (PI), Haibin Ling (co-PI), and Jie Wu (co-PI). (Aug. 15, 2016 Jul. 31, 2020) "Evidence of Presence for Intelligent Vehicles using Environment-Based Security", *National Science Foundation*, \$416,938.

- Haibin Ling. (Feb. 2014 Jan. 2020) "CAREER: High-order Tensor Analysis for Groupwise Correspondence: Theory, Algorithms, and Applications," *National Science Foundation*, \$479,691.
- Haibin Ling (PI), Vasileios Megalooikonomo (co-PI), Jie Yang (co-PI). (Aug. 2014 Jul. 2019) "Cost Efficient Osteoporosis Analysis using Dental Data," *National Science Foundation*, \$595,797.
- Haibin Ling. (Jan. 31, 2015 Dec. 31, 2018) "Evaluation of High Performance Computing Enabled Multiple-Target Tracking Based on Massive Parallelism for Urban Surveillance Areas," *Intelligent Fusion Technologies*, \$187,500.
- Jie Wu (PI), Eugene Kwatny (co-PI), Haibin Ling (co-PI), and Chiu C. Tan (co-PI). (Sep. 2014 Aug. 2016) "Mobility-Enhanced Public Safety Surveillance System using 3D Cameras and High Speed Broadband Networks", *National Science Foundation*, \$199,995.
- Haibin Ling. (Oct. 25, 2013 Dec. 31, 2014) "HPC-MTT: High Performance Computing Enabled Multiple Target Tracking for Urban Surveillance Areas," *Intelligent Fusion Technologies*, \$50K, FA8750-14-C-0043.
- Haibin Ling. (Jun. 21, 2013 Jun. 19, 2015) "Video to Text (V2T) for Wide Area Motion Imagery," *Intelligent Fusion Technologies*, \$50K.
- Haibin Ling (PI), Jingyi Yu (PI). (2012/09/01 2016/08/31) "Contour-Assisted Visual Inference: Systems, Algorithms, and Applications," *National Science Foundation*, \$457,673.
- Haibin Ling. (Aug. 2012 Aug. 2013) "Autonomous ISR Testbed with Multiple Robots," Intelligent Fusion Technologies, \$70K.
- Haibin Ling. (Feb. 2012) "Robust Face Recognition," private research gift, \$20K.
- Haibin Ling. (2010/09/01 2012/08/31) "A New Framework for Balancing Deformability and Discriminability in Computer Vision," *National Science Foundation*, \$68,863.
- Vasileios Megalooikonomou (PI), Haibin Ling (co-PI), Predrag Bakic (co-PI). (2009/09/01 2013/08/31) "Modeling, Detection, and Analysis of Branching Structures in Medical Imaging," *National Science Foundation*, \$498,633.

TEACHING

- CSE 327, *Fundamentals of Computer Vision*, Stony Brook University, Department of Computer Science, Spring 2022, Fall 2022.
- CSE 527, *Introduction to Computer Vision*, Stony Brook University, Department of Computer Science, Spring 2020, Spring 2021, Spring 2022.
- CSE 615, *Advanced Computer Vision*, co-teach with Dimitris Samaras, Minh Hoai Nguyen, and Michael Ryoo, Stony Brook University, Department of Computer Science, Spring 2020-Fall 2022.
- CIS 3223, *Data Structures and Algorithms*, Temple University, Department of Computer and Information Sciences, Spring 2018, Spring 2019.
- CIS 5590, *Introduction to Deep Learning*, Temple University, Department of Computer and Information Sciences, Fall 2018.
- CIS 5543, *Computer Vision*, Temple University, Department of Computer and Information Sciences, Fall 2017.
- CIS 8543/5543, *Computer Vision*, Temple University, Department of Computer and Information Sciences, Spring 2012, Fall 2013, Spring 2015.

- CIS 2033: *Computational Probability and Statistics*, Temple University, Department of Computer and Information Sciences, Fall 2014.
- CIS 2166: *Mathematical Concepts in Computing II*, Temple University, Department of Computer and Information Sciences, Spring 2014.
- CIS 3223/5501, *Data Structures and Algorithms*, Temple University, Department of Computer and Information Sciences, Fall 2009, Fall 2010, Fall 2011, Fall 2012, Spring 2013.
- CIS 8590.002, *Visual Information Analysis*, Temple University, Department of Computer and Information Sciences, Spring 2010, Spring 2011.
- CIS 8590.002, *Statistical Foundations of Data Analysis*, Temple University, Department of Computer and Information Sciences, Spring 2009.

Advising (and last known affiliations)

Postdoc and Visiting Scholar

- Huabing Zhou (2018–2019), Wuhan Institute of Technology, China
- Xin Liu (2017–2018), Huaqiao University, China
- Jifeng Shen (2016–2017), Jiangsu University, China
- Lei Zhu (2016–2017), Wuhan University of Science and Technology
- Dong Wang (2015–2016), Dalian University of Technology, China
- Guanyu Xing (2015–2016), Sichuan University
- Haiqiang Zuo (2015–2016), China University of Petroleum
- Tao Wang (2014–2015), Beijing Jiaotong University, China
- Xin Liang (2015), Dalian Medical University, China
- Qi Zou (2014–2015), Beijing Jiaotong University, China
- Yi Wu (2010–2012), Wormpex AI Research
- Haitao Lang (2011), Beijing University of Chemical Technology, China

Doctoral Student Supervision

- Wensheng Cheng
- Semir Elezovikj
- Kalyan Garigapati
- Yunfan Li (co-advising with Himanshu Gupta, Prateek Prasanna and IV Ramakrishnan)
- Zhenghong Li (co-advising with Yingtian Pan)
- Ruyi Lian
- Lu Pang (co-advising with Chao Chen)
- Khiem Phi (co-advising with IV Ramakrishnan)
- Jiaxiang Ren (co-advising with Yingtian Pan)
- Tao Sun
- Peiyao Wang
- Yufeng Wang
- Zhilin Zou (co-advising with Chao Chen)

Graduated (year graduated, last known employment, thesis title)

- Mengyang Pu (co-advised with Yaping Huang), 2022, North China Electric Power University. "Pixel-Level Image Semantic Understanding."
- Hexin Bai (co-advised with Kai Zhang), 2022, ByteDance. "Graph Neural Network and Its Applications."
- Minghao Chen (2020-2022 for PhD study), PhD student at Oxford.
- Jingwei Qu (co-advised with Zhi Tang and Xiaoqing Lu), 2022, Southwest University.
- Heng Fan, 2021, University of North Texas. "Algorithms and Benchmarks for Robust Visual Object Tracking".
- Bingyao Huang, 2021, Southwest University. "Techniques of Visualization and Security in Spatial Augmented Reality".
- Xinyi Li, 2021, Magic Leap. "Robust 6-DOF Camera Relocalization in Multi-view Structure from Motion"
- Fan Yang, 2020, United Imaging Intelligence. "Deep Learning-based Object Perception Algorithm and Application."
- Peng Chu, 2020, Microsoft. "Deep Neural Network for Robust Multiple Object Tracking".
- Yu Pang, 2019, Facebook. "Object Trackers Performance Evaluation and Improvement with Applications using High-order Tensor."
- Lin Chen (visiting PhD student co-advised with Yaowu Chen), 2019, AiBee.
- Qin Zhou (co-advised with Shibao Zheng), 2019, Shanghai Jiaotong University.
- Chunjuan Bo (visiting PhD student co-advised with Huchuan Lu), 2019, Dalian Nationalities University.
- Yuxi Wang (visiting PhD student co-advised with Yue Liu), 2018, Hangzhou Dianzi University.
- Shuai Di (visiting PhD student co-advised with Honggang Zhang), 2017, Jingdong Inc.
- Pengpeng Liang, 2016, Professor at Zhengzhou University. "Techniques for Object Tracking: Algorithms and Benchmarks".
- Peiyi Li, 2016, Bilibili. "Exploration of 3D Images to Understand 3D Real World".
- Houwen Peng, 2016 (co-advised with Weiming Hu), Microsoft Research.
- Liang Du, 2015, Microsoft. "Exploiting Competition Relationship for Robust Visual Recognition".
- Jin Gao, 2015 (co-advised with Weiming Hu), Chinese Academy of Sciences.
- Tatyana Nuzhnaya (co-advised with Vasileios Megalooikonomou), 2015, J.P. Morgan. "Analysis of Anatomical Branching Structures".
- Haoran Wang, 2015 (visiting PhD student co-advised with Changyin Sun), Northeastern University, China.
- Erkang Cheng, 2014, Broncus Medical, Inc. "Learning based Curvilinear Structure Analysis in Medical Images"
- Xinchu Shi, 2013 (co-advised with Weiming Hu), MeiTuan. "Multiple Target Tracking and Its Application to Aerial Video Motion Analysis"
- Nianhua Xie, 2011 (co-advised with Weiming Hu), Sogou. "Image Category Classification and Its Application to Cannabis Image Filtering"

Master Student Supervision

• Neelesh Verma

Graduated (year graduated, last known affiliation, and thesis title if applicable)

- Kevin Doshi, 2022, Stackline
- Kalyan Garigapati, 2022. "Transparent Object Tracking".
- Chirag Krishna Goyel, 2022
- Purva Mhasakar, 2022
- Jay Rajput, 2022
- Vinayak Shenoy, 2022, Yahoo. "Temporal Action Recognition on Surgical Datasets".
- Reetu Singh, 2022, Meta
- Zhilin Zou, 2022, PhD student at Stony Brook University. "Joint Registration For Denoising In Optical Coherence Tomography Angiography".
- Xiaoqiong Liu, 2021, PhD student at University of North Texas
- Halady Akhilesh Miththanthaya, 2021. "A Benchmark for Tracking Transparent Objects"
- Ishan Sachin Mahajan, 2021
- Pavani Tripathi, 2021, Magic Leap. "Weakly Supervised Transparent Object Segmentation in the Wild"
- Gautham Ramajayam, 2021, Bloomberg
- Xuan Qin, 2021. "Single-Image Animation by Cumulative Training and Motion Residual Prediction"
- Sabbarish Ramana Rajan, 2021, Amazon
- Yasha Singh, 2020, Apple
- Kunal Kolhe, 2020, Amazon. "Identifying unauthorized computer vision models on android phones"
- Juehuan Liu, 2020, Amazon
- Vivek Atulkar, 2020, Google
- Siranjiv Ramana Rajan, 2020, Amazon
- Harshit, 2020
- Kaustubh Olpadkar, 2020, Bloomberg. "Differentiable Least Recently Used mechanism and its Application in Stranger Detection "
- Sijia Yu, 2019, joined Rutgers University as a PhD student
- Jianqing Jia, 2019 (co-advised with Wei Guo), joined Syracuse University as a PhD student
- Ge Deng, 2018
- Yifan Wu, 2017, joined University of Pennsylvania as a PhD student
- Meng Yi, 2016, Google
- Xiuwen Yu, 2016
- Ngoc-Tung Nguyen, 2016, SAP
- Tuan Anh Vo, 2015
- Joseph Catrambone, 2014
- Semir Elezovikj, 2014
- Gregory Teodoro, 2014 (co-advised with Justin Y. Shi)

- Liya Ma, 2013, Broncus Medical, Inc.
- Congyi Zhou, 2013, Cerner Corporation
- Gregory Johnson, 2012
- Jin Sun, 2012, University of Georgia
- Xiong Yang, 2012 (co-advised with Yong Xu), Great Wall Fund Management
- Jingting Zeng, 2011, Sigma Designs
- Xin Li, 2009, eBay

Undergraduate Student Supervision

- Mingyu Zhao (2023)
- Mingkai Chen (2023)
- John Dicarlo (2022)
- Zachary Yodh (2019)
- Jiyoon Song (2015–2016)
- Ismail Amzovski (2014–2015)
- Zilong Zou (2014)
- Ferria Amzovski (2013–2014)
- Robert Laderman (2013)
- Haotian Xu (2011–2012)
- Angelo Saxon Jr. (2011)
- Shawn McLaughlin (2010–2011)
- Teresa Rothaar (2010)

PhD Committee Member

- Shawn Mathew, defended 2023
- Christoph Mayer (ETH Zurich), defended 2023
- Sagnik Das, defended 2022
- Dongsheng An, defended 2022
- Huidong Liu, defended 2022
- Sarah Lehman (Temple University), defended 2022
- Tianyi Zhao, defended 2022
- Yang Guo, defended 2022
- Ke Ma, defended 2021
- Tong Liu (Temple University), defended 2021
- Ali Selman Aydin, defended 2021
- Ibrahim Hammoud, defended 2021
- Yizhe Zhu (Rutgers University), defended 2021
- Xin Qi, defended 2021
- Hieu Le, defended 2020
- Chengfeng Wen, defended 2020
- Tian Bai (Temple University), defended 2019

- Nan Li (Temple University), defended 2017
- Nianyi Li (University of Delaware), defended 2017
- Zhuo Deng (Temple University), defended 2016
- Chao Ma (Shanghai Jiaotong University), defended 2016
- Xueli Huang (Temple University), defended 2015
- Le Shu (Temple University), defended 2015
- Ralph Oyini Mbona (Temple University), defended 2014
- Geoff Oxholm (Drexel University), defended 2014
- Tianyang Ma (Temple University), defended 2013
- Li An (Temple University), defended 2012
- Xingwei Yang (Temple University), defended 2011
- Suzan Koknar-Tezel (Temple University), defended 2010
- Xue Mei (University of Maryland College Park), defended 2009

MS Committee Member

- Daniel Billmann, defended 2023
- Huy Anh Nguyen, defended 2023
- Ritvik Rawat, defended 2021
- Mingzhen Huang, defended 2021
- Bhuvnesh Kumar, defended 2020
- Bingyao Huang (Rowan University), defended 2015

PROFESSIONAL ACTIVITIES

Editorial Services

- Associate Editor, IEEE Trans. on Pattern Analysis and Machine Intelligence (PAMI), 2016 -
- Associate Editor, IEEE Trans. on Visualization and Computer Graphics (TVCG), 2022 -
- Associate Editor, Computer Vision and Image Understanding (CVIU), 2017 2023
- Associate Editor, Pattern Recognition (PR), 2015 2021
- Associate Editor, BMC Medical Informatics and Decision Making, 2016 2017
- Guest Editor, Pattern Recognition, Special Issue on Deep Video Analysis: Models, Algorithms and Applications, 2020
- Guest Editor, Neurocomputing, Special Issue on Human Visual Saliency and Artificial Neural Attention in Deep Learning, 2019
- Guest Editor, Pattern Recognition, Special Issue on Open-Set Big Data Understanding: Theory and Applications, 2019
- Guest Editor, Pattern Recognition, Special Issue on Discriminative Feature Learning from Big Data for Visual Recognition, 2014

Grant Proposal Review or Panel

- National Science Foundation (NSF), since 2008
- National Institutes of Health (NIH), 2022

- Department of Energy (DOE), 2022
- Dutch Research Council (NWO), 2020
- Army Research Office (ARO), 2018
- Air Force Research Laboratory (AFRL), 2017
- Israel Science Foundation (ISF), 2011, 2015, 2016

Senior Conference Committee

- Area Chair, IEEE Conf. on Computer Vision and Pattern Recognition (CVPR), 2014, 2016, 2019–2022
- Area Chair, International Conf. on Computer Vision (ICCV), 2023
- Area Chair, European Conf. on Computer Vision (ECCV), 2020, 2022
- Area Chair, IEEE Winter Conf. on Applications of Computer Vision (WACV), 2022
- Organizing Committee, International Workshop on Computer Vision for UAVs, in conjunction with ECCV, 2020
- Program Co-Chair, ICCV 2019 Workshop on Vision Meets Drone (VisDrone2019), 2019
- Program Co-Chair, ECCV 2018 Workshop on Vision Meets Drone (VisDrone2018), 2018
- Program Co-Chair, IEEE Workshop on Beyond the Visible Spectrum (PBVS), 2017
- Advisory Committee, IEEE Workshop on Beyond the Visible Spectrum (PBVS), 2018, 2019, 2020
- Poster Chair, the 3rd GNY Area Multimedia and Vision Meeting (GNY-MV), 2013
- Symposium Chair, Int'l Conf. on Computing, Networking and Communications (ICNC), 2013

Conference Program Committee/Reviewers

- IEEE Conf. on Computer Vision and Pattern Recognition (CVPR), since 2005 (except when serving as area chairs)
- IEEE Int'l Conf. on Computer Vision (ICCV), since 2007 (biannual)
- European Conf. on Computer Vision (ECCV), since 2010 (except when serving as area chairs)
- IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), 2019, 2020
- KDD Workshop on Data Science with Human in the Loop (DaSH), 2020, 2021
- Int'l Joint Conf. on Artificial Intelligence (IJCAI), 2019
- IEEE Int'l Conference on Robotics and Automation (ICRA), 2018-2020
- Int'l Conf. on Document Analysis and Recognition (ICDAR), 2017
- IEEE Int'l Joint Conf. on Biometrics (IJCB), 2017
- Neural Information Processing Systems Conference (NeurIPS), 2015, 2023
- Int'l Conf. on Medical Image Computing and Computer Assisted Intervention (MICCAI), 2012–2013, 2015, 2016
- AAAI Conference on Artificial Intelligence (AAAI), 2015, 2019, 2022
- IEEE Int'l Symposium on Biomedical Imaging (ISBI), 2014–2018
- Asian Conf. on Computer Vision (ACCV), 2010–2014 (biannual)
- Int'l Conf. on Pattern Recognition (ICPR), 2010–2018 (biannual)
- Int'l Conf. on Acoustics, Speech and Signal Processing (ICASSP), 2014, 2015

- IEEE Int'l Conf. on Multimedia & Expo (ICME), 2009–2015
- ARES conference Special Session on Privacy Aware Machine Learning, 2016
- IEEE Int'l Conf. on Automatic Face and Gesture Recognition (FG), 2013, 2015
- IEEE Workshop on Perception Beyond the Visible Spectrum, 2016
- ACCV Workshop on My Car Has Eyes: Intelligent Vehicle With Vision Technology, 2014
- SPIE Conf. on Geospatial InfoFusion and Video Analytics IV, 2014
- Int'l Conf. on Internet Multimedia Computing and Service, 2014
- Int'l Conf. on Intelligence Science and Big Data Engineering (IScIDE), 2013
- Int'l Workshop on Cloud Enhanced Information Fusion (CloudFusion), 2013
- MICCAI Workshop on Sparsity Techniques in Medical Imaging, 2012
- Int'l Conf. on Computer Vision in Remote Sensing (CVRS), 2012
- ACCV Workshop on Detection and Tracking in Challenging Environments (DTCE), 2012
- High-Performance Medical Image Computing for Image-Assisted Clinical Intervention and Decision-Making (HP-MICCAI), 2010
- IEEE Workshop on Multimedia Signal Processing (MMSP), 2012
- Int'l Conf. on CAD/Graphics, 2011

Book Proposal Review

- Springer, 2012, 2017
- Journal Review ACM Computing Surveys (CSUR) \diamond ACM Trans. on Intelligent Systems and Technology (T-IST) \diamond ACM Trans. on Graphics (**TOG**) \diamond Aerospace Science & Technology \diamond Artificial Intelligence in Medicine & Applied Optics & Asia–Pacific J. of Operational Research & CCF Transactions on High Performance Computing (THPC) \diamond Computer & Graphics \diamond Computer Vision and Image Understanding (\mathbf{CVIU}) \diamond Computer-Aided Design (\mathbf{CAD}) \diamond Digital Signal Processing \diamond IEEE/ACM Transactions on Computational Biology and Bioinformatics \diamond IEEE Aerospace and Electronic Systems Magazine \diamond IEEE Journal of Biomedical and Health Informatics \diamond IEEE MultiMedia \diamond IEEE Signal Processing Letters (SPL) \diamond IEEE Trans. on Circuits and Systems for Video Technology $(\mathbf{T}-\mathbf{CSVT}) \diamond$ IEEE Trans. on Human-Machine Systems \diamond IEEE Trans. on Image Processing (**T-IP**) \diamond IEEE Trans. on Information Forensics & Security (**T-IFS**) \diamond IEEE Trans. on Information Technology in BioMedicine \diamond IEEE Trans. on Medical Imaging (**T-MI**) \diamond IEEE Trans. on Multimedia (T-MM) \diamond IEEE Trans. on Neural Networks and Learning Systems (**T-NNLS**) \diamond IEEE Trans. on Pattern Analysis and Machine Intelligence (**T-PAMI**) \diamond IEEE Trans. on Systems, Man, and Cybernetics–Part B: Cybernetics (T-SMC) \diamond IEEE Trans. on Systems, Man, and Cybernetics: Systems \diamond IEEE Trans. on Visualization and Computer Graphics $(\mathbf{TVCG}) \diamond$ IET Computer Vision \diamond IET Image Processing \diamond Image and Vision Computing (IMAVIS) \diamond Information Sciences \diamond Int'l J. of Advanced Robotic Systems \diamond Int'l J. of Computer Vision (**IJCV**) \diamond Int'l J. of Parallel, Emergent and Distributed Systems \diamond J. of Artificial General Intelligence \diamond J. of Artificial Intelligence Research (**JAIR**) \diamond J. of Biomedical Optics \diamond J. of Computer Science and Technology \diamond J. of Electronic Imaging \diamond J. of Mathematical Imaging and Vision (JMIV) \diamond J. of Machine Learning Research $(\mathbf{JMLR}) \diamond J$. of Medical Imaging $\diamond J$. of Signal Processing Systems $\diamond J$. of Visual Communication and Image Representation (JVCI) \diamond J. of Zhejiang University Science $C \diamond$ Machine Vision and Applications (MVA) \diamond Multimedia Systems \diamond Neural Computing and

Applications \diamond Neurocomputing \diamond Optical Engineering \diamond Pattern Recognition (**PR**) \diamond Pattern Recognition Letters (PRL) \diamond PLOS ONE \diamond SIAM Journal on Imaging Sciences \diamond Signal, Image and Video Processing \diamond Signal Processing \diamond Signal Processing: Image Communication \diamond Soft Computing \diamond Taxon \diamond Visual Computer