

ID	Paper Title	Authors
Poster Session I: July 9, 10:30 AM - 12:30 PM		
5	Track-Before-Detect Labeled Multi-Bernoulli Filter for Multi-Target Bearing-Only Tracking using an Autonomous Underwater Vehicle	Zheng, Ce*; Chen, Yankun; Wang, Qisen; Li, Xiang; Liu, Sijian; Dong, Chao
20	Enhanced Jamming Suppression in Colocated MIMO Radar with Fluid Antenna Array	Wu, Linlong*; Mysore Ramarao, Bhavani Shankar; Liu, Wei; Ottersten, Bjorn
35	Adaptive Factor Analysis for Direction Finding in Colored Disturbance	Scharf, Louis*; Orlando, Danilo; Ricci, Giuseppe
42	Antenna Placement in Compressive Sensing Radar using Binary Optimization	Hamida, Adnan*; Saif, Mohammed; Li, Jun; Valaee, Shahrokh
46	Subspace Tracking with Dynamical Models on the Grassmannian	Saad-Falcon, Alex*; Ancelin, Brighton; Romberg, Justin
93	Multi-Tier Structured Array for Sensing Pilot Design in Integrated Sensing and Communication	Ren, Jiaying*; Tsai, Shawn
94	Small-Noise Sensitivity Analysis of Locating Pulses in the Presence of Adversarial Perturbation	Kalra, Meghna*; Ferreira Da Costa, Maxime; Lee, Kiryung
36	Calibration of Polarimetric Antenna Arrays Using Neural Networks	Springer, Jannik*; Mikus, Philipp; Oispuu, Marc; Koch, Wolfgang; Knott, Peter
30	Radar Anti-jamming Strategy Learning via Domain-knowledge Enhanced Online Convex Optimization	LIU, Liangqi*; Pu, Wenqiang; Li, Yingru; Jiu, Bo; Luo, Zhiquan
50	Frequency-Switching Sparse Arrays	Zhang, Yimin D.*; Chowdhury, Md Waqeeb Tahmeed Sayeed
63	Direct Position Determination of Locally Scattered Sources Using Generalized Array Manifold Model	Palur Palanivelu, Devanand*; Oispuu, Marc; Koch, Wolfgang; Dallmann, Thomas
97	Analysis of Cross Terms in Toeplitz Rectified Sample Covariance Matrices	Chavali, Vaibhav*; Wage, Kathleen
12	Analysis of a Fixed Point Iteration Algorithm for TOA Localization	Cuevas, Diego*; Beltrán, Carlos; Gutiérrez, Mikel; Santamaria, Ignacio; Tuček, Vit
24	Robust NLOS Error Mitigation for Hybrid AOA and TOA Localization	Zou, Yanbin*; Zhang, Zekai; Liu, Huaping
57	Semi-Passive RIS-Aided Sequential Channel Estimation and Prediction	Asif Haider, Mirza; Zhang, Yimin D.*; Ding, Yanwu; Shen, Dan; Pham, Khanh; Chen, Genshe
68	Block Sparsity Based Channel Estimation for IRS-Assisted mmWave MIMO Systems	Guo, Fang; Liao, Bin*
108	Low Complexity Beam Domain Processing for Autoencoder Based CSI Compression	Ibrahim, Mohamed Salah; Ibrahim, Mohamed*; Malhotra, Akshay
14	Structured Multi-Antenna Grassmannian Constellations for Noncoherent Communications	Cuevas, Diego*; Beltrán, Carlos; Gutiérrez, Mikel; Santamaria, Ignacio; Tuček, Vit
23	Distributed UAV Beamforming using Graph Recurrent Neural Networks	Zheng, Wengqing*; Sadler, Brian M; Gama, Fernando; Chen, Tianlong
96	Experimental Evaluation of a Null-Steered Performance Weighted Blended Beamformer	Tucker, Jeff B*; Wage, Kathleen E.
Poster Session II: July 9, 4:00 PM - 6:00 PM		
34	Lower Bounds on Non-Bayesian Parameter Estimation Errors under Reparameterization	Sagiv, Shay*; Messer, Hagit; Habi, Hai Victor; Tabrikian, Joseph
107	High-Dimensional Constrained Huber Regression	Wei, Quan*; Zhao, Ziping
18	Distributed Sparse Subspace Clustering by K-Means Subspace Fusion	Huang, Liang-Chi*; Hong, Y.-W. Peter; Wu, Jwo-Yuh
41	Deep-Learning-based Spatial Acoustic Properties Recovery from Incomplete Signals	Liu, Ruixian*; Gerstoft, Peter
47	A Machine-Learning-based approach to Direction-of-arrival Sectorization using Spherical Microphone Array	Nnonyelu, Chibuzo J*; Jiang, Meng; Adamopoulou, Marianthi; Lundgren, Jan
65	Tail-STELA for Fast Signal Recovery via Basis Pursuit	Fan, Yufan*; Pesavento, Marius
111	Closed-Loop Training for Projected GAN	Pan, Lili*
112	How does promoting the minority fraction affect generalization? A theoretical study of one-hidden-layer neural networks	Li, Hongkang*; zhang, shuai; Zhang, Yihua; Wang, Meng; Liu, Sijia; Chen, Pin-Yu
113	Machine-Learning-Assisted Leak Detection Using Distributed Temperature and Acoustic Sensors	Sharma, Jyotsna*
115	One-bit spectrum sensing for cognitive radio	Ramírez, David*; Xiao, Yu-Hang
116	Low-Complexity Channel Estimation for Massive MIMO Systems With Decentralized Baseband Processing	Xu, Yanqing; Wang, Bo ; Song, Enbin; Shi, Qingjiang; Chang, Tsung-Hui*

Special Session: Advances in Optimization for Machine Learning and Signal Processing	16	CI-based QoS-Constrained Transmit Signal Design for DFRC Systems with One-Bit DACs	Palur Palanivelu, Devanand*; Oispuu, Marc; Koch, Wolfgang; Dallmann, Thomas
	48	A Stochastic Algorithm for Sinkhorn Distance-Regularized Distributionally Robust Optimization	Sun, Yuchen; Huang, Kejun*
	70	Two-way Sparse Reduced-Rank Regression via Scaled Gradient Descent with Hard Thresholding	Cheng, Cheng; Zhao, Ziping*
	71	Learning on Transformers is Provable Low-Rank and Sparse: A One-layer Analysis	Li, Hongkang*; Wang, Meng; zhang, shuai; Liu, Sijia; Chen, Pin-Yu
	79	Adaptive Bayesian Optimization for Online Management in Mobile Edge Computing	Yan, Jia*; Lu, Qin; Polyzos, Konstantinos D.
	87	Building Large Models from Small Distributed Models: A Layer Matching Approach	Zhang, Xinwei*; Song, Bingqing; Honarkhah, Mehrdad; Ding, Jie; Hong, Mingyi
	110	Byzantine-resilient Bilevel Federated Learning	Abbas, Momin*; Zhou, Yi; Baracaldo, Nathalie; Samulowitz, Horst; Ram, Parikshit; Salonidis, Theodoros; Chen, Tianyi
Poster Session III: July 10, 10:30 AM - 12:30 PM			
Special Session: Advances in Low- Resolution Signal Processing	38	HDR Imaging with One-Bit Quantization	Eamaz, Arian*; Yeganegi, Farhang; Soltanalian, Mojtaba
	40	Overdemodulation-Aided One-bit DoA Estimation	Yang, Yufeng*; Zhou, Yi; Lu, Zhaosong
	60	Channel Estimation in Low-Resolution Near-Field Massive MIMO Systems	Nguyen, Van Ly*; Nguyen, Duy; Atzeni, Italo; Tölli, Antti; Swindlehurst, Lee
	67	Covariance Matrix Rectification Based DOA Estimation With Mixed-Resolution Quantization	You, Qianhui; Xu, Liya; Liao, Bin*
Special Session: Automotive Radar Signal Processing for Autonomous Vehicle	3	MLS-based Transmitter Orthogonality Analysis in MIMO-PMCW Automotive Radar Systems	Kahlert, Moritz*; Fei, Tai; Wilden, Norwin; Tebruegge, Claas; Gardill, Markus
	31	Enhanced Automotive Radar Collaborative Sensing By Exploiting Constructive Interference	Xu, Lifan; Sun, Shunqiao*; Swindlehurst, Lee
	80	Comparison of single frame classification with Micro-Doppler classification of VRUs for traffic radar	Murtaja, Rajab*
	85	Near-field Automotive Joint Radar-Communications With Spatial Path Index Modulation	Elbir, Ahmet M*; Mishra, Kumar Vijay; Celik, Abdulkadir; Eltawil, Ahmed
Special Session: Exploiting Sparsity in Sensor Arrays and Signal Waveforms	13	Atomic norm denoising for multi-frequency-snapshot DOA estimation	PARK, YONGSUNG*; Gerstoft, Peter; Wu, Yifan; Wakin, Michael
	15	Weight-Constrained Nested Arrays With $w(1)=w(2)=0$ For Reduced Mutual Coupling	Kulkarni, Pranav D*; Vaidyanathan, Dr.P P
	27	Receiver Antenna Allocation for Joint Sensing and Communications	van der Werf, Ids*; Leus, Geert; Chepuri, Sundeep Prabhakar
	55	High-Resolution DOA Estimation Using Single-Snapshot MUSIC for Automotive Radar with Mixed ADC Allocations	Liang, Hao; Liao, Bin*
	56	Monte Carlo Source Enumeration for Sparse Arrays	Liu, Chun-Lin*
	61	Sparse Array Design and Beamforming for Integrated Sensing and Communication Systems	Sankar, R.S. Prasobh*; Chepuri, Sundeep Prabhakar
	64	Blind Phase-Offset Estimation in Sparse Partly Calibrated Arrays	Liu, Tianyi*; Pesavento, Marius
	72	Deep Unrolling-Based One-Bit DoA Estimation	Yeganegi, Farhang*; Eamaz, Arian; Esmaeilbeig, Tara; Soltanalian, Mojtaba
	83	Identical Partitioning of Consecutive Integer Set	Zhang, Yimin D.*; Sun, Shunqiao
	89	Optimal Ratio Between Coherent and Orthogonal Signals in Sparse MIMO Radar	Sun, Helin; Tabrikian, Joseph*; Messer, Hagit; Gao, Hongyuan
	99	DynaPA: Dynamic Power Allocation for Improved Exploration-Exploitation in Active Sensing	Khirwadkar, Parthasarathi S*; Hucumenoglu, Mehmet; Pal, Piya
	109	Source Number Estimation for Iterative Coarray Beamforming With Partially Augmentable Arrays	Ahmad, Fauzia*; Ferdous, Jannatul

Poster Session IV: July 10, 4:00 PM - 6:00 PM			
Special Session: Learning and Optimization on Graphs	21	DIFFERENTIAL ERROR FEEDBACK FOR COMMUNICATION-EFFICIENT DECENTRALIZED OPTIMIZATION	Nassif, Roula; Vlaski, Stefan*; Carpentiero, Marco ; Matta, Vincenzo; Sayed, Ali H.
	44	Block Successive Convex Approximation for Concomitant Linear DAG Estimation	Saboksayr, Seyed Saman*; Mateos, Gonzalo; Tepper, Mariano
	45	Robust Meta-Learning over Graphs with Graph Neural Networks	Sadeghi, Alireza*; Giannakis, Georgios B.
	52	An Efficient Optimization Framework for Learning General Signed Graphs from Smooth Signals	Fong, Shi-Yuk; So, Anthony Man-Cho*
	54	Distributed Sparse Covariance Matrix Estimation	Xia, Wenfu*; Zhao, Ziping; Sun, Ying
	74	Unrolling Decentralized Stochastic Frank Wolfe Algorithm	Francis, Robin*; Ramakrishnan, Sai Rajaji; Chepuri, Sundeep Prabhakar
	91	Peer-to-Peer Model-Agnostic Meta-Learning	Qureshi, Muhammad I*; Khan, Usman
Special Session: Learning with Few Labels	58	Improved Identifiability and Sample Complexity Analysis of Complete Dictionary Learning	Sun, Yuchen; Huang, Kejun*
	73	Labeling Sequential Data from Noisy Annotations	Marrinan, Timothy*; Ibrahim, Shahana; Fu, Xiao
	75	Revisiting semi-supervised training objectives for differentiable particle filters	Li, Jiayi*; Brady, John-Joseph W; Chen, Xiongjie; Li, Yunpeng
	82	Active labeling for online ensemble learning	Polyzos, Konstantinos D.*; Lu, Qin; Giannakis, Georgios B.
	101	A Graph Autoencoder Approach to Crowdsourcing	Traganitis, Panagiotis*; Kanatsoulis, Charilaos
Special Session: Recent Advances on Graph Signal Processing	49	Filtering as Rewiring for Bias Mitigation on Graphs	Kose, Oyku D*; Mateos, Gonzalo; Shen, Yanning
	59	Gaussian Processes for Predicting Simplicial Closure	Gurugubelli, Sravanthi*; Chepuri, Sundeep Prabhakar
	76	Learning the Topology of a Simplicial Complex Using Simplicial Signals: A Greedy Approach	Buciulea Vlas, Andrei; Isufi, Elvin; Leus, Geert; Marques, Antonio G.*
	77	On Detecting Low-pass Graph Signals under Partial Observations	Nguyen, Hoang-Son*; Wai, Hoi-To
	88	A Federated Learning Approach for Graph Convolutional Neural Networks	Campbell, Andrew*; Liu, Hang; Scaglione, Anna; Wu, Tong
	100	Sampling in the Graph Signal Processing Companion Model	Shi, John*; Moura, José M. F.
Poster Session V: July 11, 10:30 AM - 12:30 PM			
Special Session: Nonconvex and Nonsmooth Methods for Ill-Posed Inverse Problems	7	ADMM for t_0 Factor Analysis	Wang, Linyang*; Liu, wanquan; Zhu, Bin
	10	A Decentralised Asynchronous Optimisation Algorithm with an Application to Phase Retrieval	Mafakheri, Behnam*; Manton, Jonathan; Shames, Iman
	19	Decentralized Non-Smooth Optimization Over the Stiefel Manifold	Wang, Jinxin*; Hu, Jiang; Chen, Shixiang; Deng, Zengde; So, Anthony Man-Cho
	28	A Preconditioned Fast Iterative Hard Thresholding Algorithm for Spectrally Sparse Signal Reconstruction	Fengmiao, Bian; Cai, Jian-Feng*; QUAN, Xueyang; Wang, Yang
	33	Linear Convergence of Iteratively Reweighted Least Squares for Nuclear Norm Minimization	Kümmerle, Christian; Stöger, Dominik*
	66	ADMM-Based Outage Constrained MIMO-ISAC Hybrid Beamforming Design	Liang, Hao; Liao, Bin*
	103	Variable Selection for Max-Affine Regression via Sparse Gradient Descent	Kanj, Haitham*; Kim, Seonho; Lee, Kiryung

Special Session: Near-Field Signal Processing for Communications and Sensing	4	Low-Complexity Near-Field Channel Estimation for Hybrid RIS Assisted Systems	Schroeder, Rafaela*; He, Jiguang; Djelouat, Hamza; Juntti, Markku
	11	Near-Field ISAC: Performance Analysis and Rate Region Characterization	Zhao, Boqun*; Ouyang, Chongjun; Xu, Jiaqi; Zhang, Xingqi; Liu, Yuanwei
	22	Near or far: On determining the appropriate channel estimation strategy in cross-field communication	Tarboush, Simon*; Ali, Anum; Al-NAffouri, Tareq
	69	Geometry-Aided Near-Field MIMO Communications via Forward-Backward Beamformer Training	Eslami, Shima*; Gouda, Bikshapathi; Tölli, Antti
Special Session: Structured Matrix and Tensor Factorization	29	HyperQUEEN-MF: Hyperspectral Quantum Deep Network with Multi-Scale Feature Fusion For Quantum Image Super-Resolution	Hsu, Shih-Min; Lin, Tzu-Hsuan; Lin, Chia-Hsiang*
	43	System Modeling of Human Body Based on Multi-channel Wrist Pulse Measurements	Li, Huiling; He, Qian*; Jin, Zhao; Jiang, Yunfeng
	81	Translation Identifiability-Guided Unsupervised Cross-Platform Super-Resolution for OCT Images	Song, Jiahui; Shrestha, Sagar*; Li, Xueshen; Gan, Yu; Fu, Xiao
	102	Frank-Wolfe Algorithm for Simplicial and Nonnegative Component Analysis	Hu, Jingzhou; Huang, Kejun*
	104	Continual Learning in Convolutional Neural Networks with Tensor Rank Updates	Krol, Matt; Hyder, Rakib; Peechatt, Michael; Prater-Bennette, Ashley; Asif, M. Salman; Markopoulos, Panagiotis*