dr. ir. Sundeep Prabhakar Chepuri

Curriculum Vitae

Contact

Dept. of ECE (MP 128), EECS division
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Google Scholar: https://scholar.google.com/citations?user=Gu8FjdwAAAAJ

Personal data

Year/Place of birth	02 April 1986, Bangalore, India
Nationality	Indian
Marital status	Married

Employment

12/2024–Present	Associate Professor, Department of ECE, Indian Institute of Science, India
12/2018–11/2024	Assistant Professor, Department of ECE, Indian Institute of Science, India
9/2015–12/2018	Postdoctoral researcher, Circuits and Systems group, Delft University of Technology, The Netherlands
9/2011–9/2015	Researcher (Ph.D. candidate) Delft University of Technology, The Netherlands
7/2010–7/2011	Research Intern, Holst center/IMEC-NL Eindhoven, The Netherlands
7/2007–8/2009	Engineer, Robert Bosch Limited, Bangalore, India

Education

9/2011-9/2015 *Ph.D. (cum laude)*, Delft University of Technology
Delft, The Netherlands. Graduation date: 25th January 2016.

Thesis: *Sparse Sensing for Statistical Inference: Theory, Algorithms, and Applications*

8/2009–7/2011 *M.Sc. (cum laude), Electrical Engineering*, Delft University of Technology
Delft, The Netherlands.

Thesis: *Wideband spectrum sensing techniques for wireless sensors*

8/2003–7/2007 *B.E. (first class with distinction), Telecommunication Engineering*, PES Institute of Technology, Bangalore, India.

Awards and Honors

Qualcomm Innovation Fellowship India (for Sravanthi in 2022, Prasobh in 2023, and Prasobh in 2024)

Co-author, Best student paper award - EUSIPCO 2023, ASILOMAR 2019, and ASILOMAR 2025.

Pratiksha Trust Young Investigator 2019-2021, IISc, Bangalore

Ramanujan Fellow, Department of Science and Technology, Govt. of India.

Best student paper award, IEEE ICASSP 2015, Australia.

Distinction award scholarship (2003-2007), PES Institute of Technology, India.

Research visits

9/2018-10/2018	Visiting Lecturer, Dept. of Signal Processing and Acoustics, Aalto University, Finland.
2/2015–3/2015	Visiting Researcher, Signal Processing in Networking and Communications Group, University of Minnesota. Hosted by Prof. Georgios B. Giannakis.

Editorships and other activities

2025–present	Associate Editor, IEEE Transactions on Signal Processing
2023–present	Associate Editor, IEEE Transactions on Signal and Information Processing over Networks
2022–2025	Associate Editor, IEEE Signal Processing Letters.
2025–2027	Vice-Chair (elected), EURASIP's Signal Processing for Multisensor Systems Special Area Team (SPMuS-TAC).
2022–2027	Member (elected), IEEE Signal Processing Society's Signal Processing Theory and Methods Technical Committee (SPTM-TC).
2024–present	Member (elected), IEEE Signal Processing Society's Integrated Sensing and Communication Technical Working Group (ISAC-TWG).
2020–2026	Member (elected), IEEE Signal Processing Society's Sensor Array and Multichannel Technical Committee (SAM-TC).
2019–2024	Member (elected), EURASIP's Signal Processing for Multisensor Systems Special Area Team (SPMuS-TAC).
2016–2020	Associate Editor, EURASIP Journal on Advances in Signal Processing.

Invited talks/keynotes

2/2024	Learning to Beamform in Integrated Sensing and Communication Systems, NCC 2024, Chennai, India.
2/2023	Graph-aware Neural Networks, NCC 2023, Guwahati, India.
12/2022	Graph Neural Networks with Precomputed Features, ENS de Lyon, Lyon, France.
12/2022	Graph Neural Networks with Precomputed Features, TU Delft, Delft, The Netherlands.
2/2022	Massive MIMO Systems with One- bit Spatial Sigma-Delta ADCs, IEEE SPS SAM-TC webinars, Online.
10/2021	Powerful Graph Neural Networks with Parallel Local Aggregations, CCS 2021, Lyon.

5/2021	Graph Neural Networks, EECS research student symposium, IISc.
10/2020	Signal Processing and Deep Learning on Graphs, ICITEE 2020, Yogyakarta, Indonesia.
10/2019	Learning over Graphs, Brain Data and Computation Symposium 2019, IISc, Bangalore.
7/2019	Sparse Graph Sampling and Learning, ICSigSys 2019, Bandung, Indonesia.
2/2019	Sparse Sampling for Tensors and Product Graphs, NCC 2019, Bangalore, India.
9/2017	Graph Sampling for Covariance Estimation, TCS Innovation labs, Bangalore, India.
9/2017	Graph Sampling for Covariance Estimation, Dept. of ECE, Indian Inst. of Science, Bangalore, India.
2/2016	Sparse Sensing for Statistical Inference, Dept. of ECE, Indian Inst. of Science, Bangalore, India.
12/2015	Sparse Sensing for Statistical Inference, MS3, Delft Univ. of Tech., Netherlands.
11/2015	Sparse Sensing for Statistical Inference, CISP, Georgia Institute of Tech., Atlanta, USA.
2/2015	Sparse Sensing for Statistical Inference, SPINCOM, Univ. of Minnesota, Minnesota, USA.
9/2012	Wireless Clock Synchronization and Localization, Dept. of ECE, Indian Inst. of Science, Bangalore, India.

Tutorials

12/2023	Integrated Sensing and Communications with Reconfigurable Intelligent Surfaces, CAMSAP 2023, Los Sueños, Costa Rica.
9/2023	Integrated Sensing and Communications with Reconfigurable Intelligent Surfaces, EUSIPCO 2023, Helsinki, Finland.
2/2020	Graph Signal Processing and Geometric Deep Learning, National Communications Conference, IIT Kharagpur, India.
7/2018	Graph Sampling for Signal and Covariance Estimation, IEEE Sensor Array and Multichannel Signal Processing Workshop (SAM 2018), Sheffield, UK.
8/2016	Sparse Sensing for Statistical Inference, European Signal Processing Conference (EUSIPCO 2016), Budapest, Hungary.
5/2016	Sparse Sensing for Statistical Inference, IEEE Sensor Array and Multichannel Signal Processing Workshop (SAM 2016), Rio de Janeiro, Brazil.

Conference organization and other services

1. 2025: Grand Challenges co-chair, ICASSP 2025; Guest Editor on ISAC at IEEE Trans. on Cognitive Communications and Networking.
2. 2024: Technical Area Chair, Asilomar 2024 and Plenary Co-Chair, EUSIPCO 2024
3. Special session co-organizer (with E. Isufi and P. De Lorezo), *Topological Signal Processing over Higher-order Networks,* at ICASSP 2024, Seoul, South Korea, April 2024.
4. 2023: Area Track Chair, IEEE SSP 2023.
5. 2022: Technical Co-Chair, IEEE SPCOM 2022.

6. Special session co-organizer (with R. Rajamaki), *Advances in Active Sensing with Applications in Autonomous and Wireless systems,* at CAMSAP 2023, Costa Rica, Dec. 2023.
7. Special session organizer, *Learning with Higher-order Network Interactions,* at ASILOMAR 2023, California, USA, Oct. 2023.
8. Special session organizer, *Representation and Learning on Graphs,* at ASILOMAR 2021, California, USA, Oct. 2021.
9. Tutorial Co-chair, EUSIPCO 2020, Amsterdam, The Netherlands.
10. Special session co-organizer (with S. Segarra, A. Marques, and Z. Zhang), *Deep Graph Learning* at IEEE ICASSP 2020, Barcelona, Spain, May. 2020.
11. Technical Co-chair: Graph Signal Processing symposium, IEEE Global Conference on Signal and Information Processing (GlobalSIP) 2018 and 2019.
12. Member of Technical Program Committee: Graph Signal Processing symposium, IEEE Global Conference on Signal and Information Processing (GlobalSIP 2016, GlobalSIP 2017), European Signal Processing Conference (EUSIPCO 2017, EUSIPCO 2018), IEEE SPAWC 2019, IEEE DSW 2019.
13. Special session co-organizer (with M. Coutino, S. Segarra), *Learning over Graphs* at IEEE CAMSAP 2019, Guadeloupe, French West Indies, December 2019.
14. Special session co-organizer (with A. Marques), *Graph Topology Inference* at IEEE Data Science Workshop 2018, Lausanne, Switzerland, Jun. 2018.
15. Special session co-organizer (with G. Leus), *Sparsity in Sampling and Inference* at IEEE CAMSAP 2017, Curaçao, Dutch Antilles, Dec. 2017.
16. Special session co-organizer (with G. Leus), *Sparse Sampling for Data Analytics,* at ASILOMAR 2016, California, USA, Nov. 2016.
17. Special session co-organizer (with G. Leus), *Designing Sparse Sensing Structures,* at ASILOMAR 2015, California, USA, Nov. 2015.

Teaching

1. Matrix Theory, 2022, 2023, 2024, 2025 (with C. Murthy).
2. Linear Algebra (for M.Tech. online), 2023, 2024, and 2025.
3. Statistical Inference for Engineers and Data Scientists (M.Tech. online), 2022-2023.
4. Optimization for Machine Learning and Data Science, 2021-2022, 2022-2023.
5. Estimation and Detection, 2019-2020, 2020-2021, (for M.Tech. online 2021-2022).
6. Adaptive Signal Processing, 2019-2020, 2020-2021.
7. Applied convex optimization (with A. Simonetto, TU Delft), 2015-2016, (with G. Leus, TU Delft) 2016-2017, 2017-2018.
8. Estimation and detection (with R. Hendriks, TU Delft), 2016-2017, 2017-2018.

Supervision

1. Sonakshi Dua, Aug. 2025 – (advisor, PhD thesis)
2. Ayushman Raghuvanshi, Aug. 2024 – (advisor, PhD thesis)
3. Sree Harsha Chukkapalli, Aug. 2022 – Jan. 2025 (advisor, M.Tech. Research)

4. Robin Francis, Aug. 2021– (advisor, PhD thesis)
5. Prasobh Sankar, Aug. 2019– Dec 2024 (advisor, PhD thesis)
6. Sravanthi Gurugubelli, Aug. 2019– Dec 2024 (advisor, PhD thesis)
7. Siddartha Reddy, Jan. 2019 – (advisor, PhD thesis)
8. Sai Kiran, Jan. 2019– Aug. 2024 (advisor, PhD thesis)
9. Siddhant Doshi, Aug. 2019– Aug. 2022 (advisor, M.Tech. Research)
10. Amarlingam Madapu, July 2019 - July 2021 (advisor, Postdoc)

Research Experience

Algorithms, analysis, and application of statistical signal processing, learning, and mathematical optimization tools to problems in sensing, wireless communications, and structured data analytics.

Experience and background include mathematical signal processing; statistical inference and learning; topological and graph signal processing, machine learning with graphs; sparse sampling; optimization; array processing; sensing and wireless communications;.

List of Publications

Total number of publications: 1 monograph, 2 book chapter, 33 (peer-reviewed) journal papers, and 84 (peer-reviewed) conference papers.

Based on Google Scholar, I have an h-index 30 with about 2800 citations.

Books

[1] S.P. Chepuri and G. Leus. Sparse sensing for statistical inference. *Foundations and Trends in Signal Processing*, 9(3):233–368, Dec. 2016.

Book Chapters

[1] G. Leus, M.Coutino, and S.P. Chepuri. Sensor placement for distributed sensing. *In M. Amin (Ed.), Sparse Arrays for Radar, Sonar, and Communications, IEEE Press/Wiley*, Dec. 2023.

[2] S. Segarra, S.P. Chepuri, A. G. Marques, and G. Leus. Statistical graph signal processing: Stationarity and spectral estimation. *In P. M. Djuric and C. Richard (Ed.), Cooperative and graph signal processing: Principles and applications, Elsevier*, Sept. 2018.

Journal Papers

[1] S. Reddy and S.P. Chepuri. Recovery of signals on a simplicial complex from subsampled neighborhood aggregation. *IEEE Signal Processing Letters*, 2024.

[2] S.K. Kadambari and S.P. Chepuri. Unlabeled signal reconstruction on product graphs. *IEEE Signal Processing Letters*, 2024.

[3] S.P. Chepuri, N. Shlezinger, F. Liu, G.C. Alexandropoulos, S. Buzzi, and Y.C. Eldar. Integrated sensing and communications with reconfigurable intelligent surfaces. *IEEE Signal Processing Magazine*, Sept. 2023.

[4] R.S. Prasobh Sankar, S.P.Chepuri, and Y.C. Eldar. Beamforming in integrated sensing and communication systems with reconfigurable intelligent surfaces. *IEEE Trans. on Wireless Communications*, Aug. 2023.

[5] R.S. Prasobh Sankar and S.P.Chepuri. Channel-aware placement of active and passive elements in hybrid RIS-assisted MISO systems. *IEEE Wireless Communications Letters*, 12(7):1229–1233, April 2023.

[6] K.N. Ramamohan, S.P. Chepuri, D.F. Comesaña, and Geert Leus. Self-calibration of acoustic scalar and vector sensor arrays. *IEEE Trans. on Sig. Proc.*, 71:61–75, Oct. 2022.

[7] R.S. Prasobh Sankar and S.P.Chepuri. Channel estimation in MIMO systems with one-bit spatial sigma-delta ADCs. *IEEE Trans. on Sig. Proc.*, 70:4681–4696, Sept. 2022.

[8] R. Shrestha, D. Romero, and S.P. Chepuri. Spectrum surveying: Active radio map estimation with autonomous UAVs. *IEEE Trans. on Wireless Communications*, 22(1):627–641, 2023.

[9] S. Doshi and S.P.Chepuri. Graph neural networks with parallel neighborhood aggregations for graph classification. *IEEE Trans. on Sig. Proc.*, 70:4883–4896, Sept. 2022.

[10] S. Doshi and S.P.Chepuri. A computational approach to drug repurposing using graph neural networks. *Computers in Biology and Medicine*, 150:105992, Sept. 2022.

[11] S. Kadambari and S.P.Chepuri. Product graph learning from multi-domain data with sparsity and rank constraints. *IEEE Trans. on Sig. Proc.*, Oct. 2022.

[12] Y. Kaloga, P. Borgnat, S.P.Chepuri, P. Abrya, and A. Habrard. Variational graph autoencoders for multiview canonical correlation analysis. *Sig. Proc.*, 188(108182), Jun. 2021.

[13] R. Robin, S.P. Chepuri, and V. Koivunen. Hybrid beamforming for active sensing using sparse arrays. *IEEE Trans. on Sig. Proc.*, 68(10):6402 – 6417, Oct. 2020.

[14] M. Coutino, S.P. Chepuri, T. Maehara, and G. Leus. Fast spectral approximation of structured graphs with applications to graph filtering. *Algorithms*, 13(9):214, Aug. 2020.

[15] S. Sharma, M. Coutino, S.P. Chepuri, G. Leus, and K.V.S. Hari. Towards a general framework for fast and feasible k-space trajectories for MRI based on projection methods. *Magnetic Resonance Imaging*, 2020.

[16] O.M. Bushnaq, A. Chaaban, S.P. Chepuri, G. Leus, and T.Y. Al-Naffouri. Sensor placement and resource allocation for energy harvesting IoT networks. *Digital Signal Processing*, Jan 2020.

[17] J. Han, S.P. Chepuri, and G. Leus. Joint channel and doppler estimation for osdm underwater acoustic communications. *Signal Processing*, Dec 2019.

[18] G. Ortiz-Jimenez, M. Coutino, S.P. Chepuri, and G. Leus. Sparse sampling for inverse problems with tensors. *IEEE Tran. on Signal Proc.*, 67(12):3272–3286, Jun. 2019.

[19] E. Tohidi, M. Coutino, S.P. Chepuri, H. Behroozi, and M.M. Nayebiand G. Leus. Sparse antenna and pulse placement for colocated MIMO radar. *IEEE Tran. on Signal Proc.*, 67(3):579–593, Feb. 2019.

[20] S.P. Chepuri. Factor analysis from quadratic sampling. *IEEE Sig. Proc. Letters*, 25(1):65–69, Jan. 2018.

[21] M.Coutino, S.P. Chepuri, and G. Leus. Near-optimal sparse sensing for Gaussian detection with correlated observations. *IEEE Tran. on Signal Proc.*, 66(15):4025–4039, Jun. 2018.

[22] J. Zhang, S.P. Chepuri, R. C. Hendriks, and R. Heusdens. Microphone subset selection for MVDR beamformer based noise reduction. *IEEE/ACM Trans. on Audio, Speech and Language Proc.*, 26(3):550–563, Mar. 2018.

[23] J. Han, S.P. Chepuri, Q. Zhang, and G. Leus. Iterative per-vector equalization for orthogonal signal-division multiplexing over time-varying underwater acoustic channels. *IEEE Journ. of Oceanic Engineering (to appear)*, Nov. 2016.

[24] S.P. Chepuri and G. Leus. Graph sampling for covariance estimation. *IEEE Jour. on Sel. Topics in Sig. Proc. and IEEE Trans. on Sig. and Info. Proc. over Networks, joint special issue on Graph Signal Processing*, 3(3):451 – 466, Sept. 2017.

[25] S. Liu, S.P. Chepuri, M. Fardad, E. Masazade, G. Leus, and P.K. Varshney. Sensor selection for estimation with correlated measurement noise. *IEEE Trans. on Sig. Proc.*, 64(13):3509 – 3522, Jul. 2016.

[26] G. Kail, S.P. Chepuri, and G. Leus. Robust censoring using Metropolis-Hastings sampling. *IEEE Journ. of Selec. Topics in Sig. Proc.*, 10(2):270–283, Mar. 2016.

[27] S. P. Chepuri and G. Leus. Sparse sensing for distributed detection. *IEEE Trans. Sig. Proc.*, 16(6):1446–1460, Mar. 2016.

[28] S. Khademi, S.P. Chepuri, Z. Irahhauten, G.J.M Janssen, and A.-J. van der Veen. 60 GHz wireless link within metal enclosures: Channel measurements and system analysis. *IEEE Trans. on Wireless Communications*, 14(9):5098–5110, Sep. 2015.

[29] S.P. Chepuri and G. Leus. Continuous sensor placement. *IEEE Sig. Proc. Letters*, 22(5):544–548, May 2015.

[30] S.P. Chepuri and G. Leus. Sparsity-promoting sensor selection for non-linear measurement models. *IEEE Trans. Sig. Proc.*, 63(3):684–698, Sep. 2015.

[31] S.P. Chepuri, G. Leus, and A.-J. van der Veen. Rigid body localization using sensor networks. *IEEE Trans. Sig. Proc.*, 62(18):4911 – 4924, Sep. 2014.

[32] S.P. Chepuri, R.T. Rajan, G. Leus, and A.J. van der Veen. Joint clock synchronization and ranging: Asymmetrical time-stamping and passive listening. *IEEE Sig. Proc. Letters*, 20(1):51–54, Jan. 2013.

[33] S. Maleki, S.P. Chepuri, and G. Leus. Optimization of hard fusion based spectrum sensing for energy-constrained cognitive radio networks. *Physical Communication*, June 2012. ISSN 1874-4907, DOI 10.1016/j.phycom.2012.07.003.

A* AI/ML Conference Papers

[1] Hiren Madhu, Sravanthi Gurugubelli, and Sundeep Prabhakar Chepuri. Unsupervised parameter-free simplicial representation learning with scattering transforms. In *Proc. of the 41st International Conference on Machine Learning (ICML)*, Vienna, Austria, July 2024.

[2] Sravanthi Gurugubelli and Sundeep Prabhakar Chepuri. SaNN: Simple yet powerful simplicial-aware neural networks. In *The Twelfth International Conference on Learning Representations (ICLR)* ***(spotlight paper)***, Vienna, Austria, May 2024.

[3] Hiren Madhu and Sundeep Prabhakar Chepuri. Toposrl: topology preserving self-supervised simplicial representation learning. In *Proc. of Advances in Neural Information Processing Systems (NeurIPS)*, New Orleans, USA, Dec. 2023.

Conference Papers

[1] Ayushman Raghuvanshi, Sravanthi Gurugubelli, and Sundeep Prabhakar Chepuri. Topological scattering over product cell complexes. In *Proc. of the IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, Hyderabad, India, April 2025.

[2] Robin Francis and Sundeep Prabhakar Chepuri. Frank-Wolfe method with proximal regularization for constrained federated learning with non-iid data. In *Proc. of the IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, Hyderabad, India, April 2025.

[3] Robin Francis and Sundeep Prabhakar Chepuri. Differentially private and communication-efficient decentralized learning using deep quantizers. In *Proc. of the IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, Hyderabad, India, April 2025.

[4] Ids Van Der Werf, Geert Leus, and Sundeep Prabhakar Chepuri. Sparse MIMO array design using uplink-downlink duality and hole-free zone co-array sensing. In *Proc. of the 58th Asilomar Conference on Signals, Systems, and Computers*, CA, USA, Oct. 2024.

[5] Soumyadeep Chatterjee, RS Prasobh Sankar, and Sundeep Prabhakar Chepuri. Sparse neural precoders for distributed integrated sensing and communication systems. In *Proc. of the 58th Asilomar Conference on Signals, Systems, and Computers*, CA, USA, Oct. 2024.

[6] RS Prasobh Sankar and Sundeep Prabhakar Chepuri. Integrated sensing and communication using spatial sigma-delta quantized arrays. In *Proc. of the 58th Asilomar Conference on Signals, Systems, and Computers*, CA, USA, Oct. 2024.

[7] Ayushman Raghuvanshi, Sravanthi Gurugubelli, Hiren Madhu Mahendrakumar, and Sundeep Prabhakar Chepuri. Variational self-supervised learning on simplicial complexes. In *Proc. of the 58th Asilomar Conference on Signals, Systems, and Computers*, CA, USA, Oct. 2024.

[8] Ids Van Der Werf, Geert Leus, and Sundeep Prabhakar Chepuri. Receiver antenna allocation for joint sensing and communications. In *Proc. of the 13th IEEE Sensor Array and Multichannel Signal Processing Workshop (SAM)*, Oregon, USA, June 2024.

[9] Robin Francis, Sai Rajaji Ramakrishnan, and Sundeep Prabhakar Chepuri. Unrolling decentralized stochastic Frank-Wolfe algorithm. In *Proc. of the 13th IEEE Sensor Array and Multichannel Signal Processing Workshop (SAM)*, Oregon, USA, June 2024.

[10] Sravanthi Gurugubelli and Sundeep Prabhakar Chepuri. Gaussian processes for predicting simplicial closure. In *Proc. of the 13th IEEE Sensor Array and Multichannel Signal Processing Workshop (SAM)*, Oregon, USA, June 2024.

[11] RS Prasobh Sankar and Sundeep Prabhakar Chepuri. Sparse array and precoding design for integrated sensing and communication systems. In *Proc. of the 13th IEEE Sensor Array and Multichannel Signal Processing Workshop (SAM)*, Oregon, USA, June 2024.

[12] Robin Francis and Sundeep Prabhakar Chepuri. Differentially private federated frank-wolfe. In *Proc. of the IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, Seoul, S. Korea, May 2024.

[13] Thummaluru Siddartha Reddy and Sundeep Prabhakar Chepuri. Sampling and recovery of signals over product cell structures. In *Proc. of the IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, Seoul, S. Korea, May 2024.

[14] RS Prasobh Sankar and Sundeep Prabhakar Chepuri. Coded aperture radar imaging using reconfigurable intelligent surfaces. In *Proc. of the 9th IEEE International Workshop on Computational Advances in Multi-Sensor Adaptive Processing (CAMSAP)*, Los Sueños, Costa Rica, Dec 2023.

[15] Sravanthi Gurugubelli and Sundeep Prabhakar Chepuri. Gaussian processes for edge flow prediction with active learning. In *Proc. of the 57th Asilomar Conference on Signals, Systems, and Computers*, CA, USA, Oct. 2023.

[16] R. Francis and S.P. Chepuri. Decentralized stochastic projection-free learning with compressed push-sum. In *Proc. of the 33rd IEEE International Workshop on Machine Learning for Signal Processing (MLSP)*, Rome, Italy, Oct. 2023.

[17] S. Gurugubelli and S.P. Chepuri. Gaussian processes over simplicial complexes: Edge flow prediction and active learning. In *Proc. of the 57th Asilomar Conference on Signals, Systems and Computers (ASILOMAR)*, Pacific Grove, California, Oct. 2023.

[18] S. Thummaluru, S.P. Chepuri, and P. Borgnat. Clustering with simplicial complexes. In *Proc. of the 31st European Signal Processing Conference (EUSIPCO)* **(Best Student Paper Award)**, Helsinki, Finland, Sept. 2023.

[19] R.P. Prasobh Sankar and S.P. Chepuri. Learning to precode for integrated sensing and communication systems. In *Proc. of the 31st European Signal Processing Conference (EUSIPCO)*, Helsinki, Finland, Sept. 2023.

[20] S.K. Kadambari and S.P. Chepuri. Product graph Gaussian processes for multi-domain data imputation and active learning. In *Proc. of the 31st European Signal Processing Conference (EUSIPCO)*, Helsinki, Finland, Sept. 2023.

[21] X.Meng, F. Liu, S. Lu, S.P. Chepuri, and C. Masouros. Ris-assisted integrated sensing and communications: a subspace rotation approach. In *Proc. of the IEEE Radar Conference*, San Antonio, Texas, USA, May 2023.

[22] R. Francis and S.P. Chepuri. Speeding up the Frank-Wolfe method using the orthogonal Jacobi polynomials. In *Proc. of the 56th Asilomar Conference on Signals, Systems and Computers (ASILOMAR)*, Pacific Grove, California, Oct. 2022.

[23] R. Kumar, S. Gurugubelli, and S.P. Chepuri. Identifying core-periphery structures using graph neural networks. In *Proc. of the 56th Asilomar Conference on Signals, Systems and Computers (ASILOMAR)*, Pacific Grove, California, Oct. 2022.

[24] S.K. Kadambari, R. Francis, and S.P. Chepuri. Distributed denoising over simplicial complexes using Chebyshev polynomial approximation. In *Proc. of the 30th European Signal Processing Conference (EUSIPCO)*, Belgrade, Serbia, Aug. 2022.

[25] R.P. Prasobh Sankar and S.P. Chepuri. Beamforming in hybrid ris assisted integrated sensing and communication systems. In *Proc. of the 30th European Signal Processing Conference (EUSIPCO)*, Belgrade, Serbia, Aug. 2022.

[26] S. Gurugubelli and S.P. Chepuri. Learning sparse graphs with a core-periphery structure. In *Proc. of the 47th IEEE international Conference on Acoustics, Speech, and Signal Processing (ICASSP)*, Singapore, May. 2022.

[27] S. Gurugubelli, S.K. Kadambari, and S.P. Chepuri. Learning a partial graph and the nystrom extension for spectral clustering. In *Proc. of the 55th Asilomar Conference on Signals, Systems and Computers (ASILOMAR)*, Pacific Grove, California, Oct. 2021.

[28] S. Reddy and S.P. Chepuri. Tensor canonical correlation analysis on graphs. In *Proc. of the 55th Asilomar Conference on Signals, Systems and Computers (ASILOMAR)*, Pacific Grove, California, Oct. 2021.

[29] R.P. Prasobh Sankar, D. Battu, and S.P. Chepuri. Joint communication and radar sensing with reconfigurable intelligent surfaces. In *Proc. of the IEEE 22nd International Workshop on Signal Processing Advances in Wireless Communications (SPAWC*, Lucca, Italy, Aug. 2021.

[30] S. Gurugubelli and S.P. Chepuri. Learning multi-layer graphs and a common representation for clustering. In *Proc. of the 29th European Signal Processing Conference (EUSIPCO)*, Dublin, Ireland, Aug. 2021.

[31] K.K Mogilipalepu, S.K Modukuri, A. Madapu, and S.P. Chepuri. Federated deep unfolding for sparse recovery. In *Proc. of the 29th European Signal Processing Conference (EUSIPCO)*, Dublin, Ireland, Aug. 2021.

[32] R.P. Prasobh Sankar and S.P. Chepuri. Millimeter wave mimo channel estimation with 1-bit spatial sigma-delta analog-to-digital converters. In *Proc. of the 46th IEEE international Conference on Acoustics, Speech, and Signal Processing (ICASSP)*, Toronto, Canada, June 2021.

[33] Y. Kaloga, P. Borgnat, S.P. Chepuri, P. Abry, and A. Habrard. Multiview variational graph canonical correlation analysis. In *Proc. of the 46th IEEE international Conference on Acoustics, Speech, and Signal Processing (ICASSP)*, Toronto, Canada, June 2021.

[34] D. Romero, S. Raju, Y. Teganya, and S.P. Chepuri. Aerial spectrum surveying: Radio map estimation with autonomous UAVs. In *Proc. of the 30th IEEE International Workshop on Machine Learning for Signal Processing (MLSP)*, Espoo, Finland, Sep. 2020.

[35] A. Madapu, S. Segarra, S.P. Chepuri, and A.G. Marques. Generative adversarial networks for graph data imputation from signed observations. In *Proc. of the IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, Barcelona, Spain, May 2020.

[36] S.K. Kadambari and S.P. Chepuri. Learning product graphs from multidomain signals. In *Proc. of the IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, Barcelona, Spain, May 2020.

[37] M. Coutino, S.P. Chepuri, and G. Leus. Learning sparse hypergraphs from dyadic relational data. In *Proc. of the 8th IEEE International Workshop on Computational Advances in Multi-Sensor Adaptive Processing (CAMSAP)*, Guadeloupe, French West Indies, Dec. 2019.

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