2025 icassp HYDERABAD, INDIA
Celebrating Signal Processing

IEEE Signal Processing Society

2025 IEEE INTERNATIONAL CONFERENCE ON ACOUSTICS, SPEECH, AND SIGNAL PROCESSING (ICASSP 2025)

April 06 - 11, 2025 Hyderabad, India

Satellite Workshop on "High-Performance and Low-Cost Array Signal Processing"

Call for Papers

Organizing Committee

Heng Qiao
Shanghai Jiao Tong University
Chun-Lin Liu
National Taiwan University
Robin Rajamäki
Aalto University
Kaushallya Adhikari
University of Rhode Island
Fauzia Ahmad
Temple University
Ziping Zhao
ShanghaiTech University

Important Dates

Paper Submission Deadline
November 1, 2024
Paper Acceptance Notification
December 18, 2024
Camera-Ready Paper Deadline
January 13, 2025

ICASSP is the world's premier technical conference focused on signal processing and its diverse applications. It features a comprehensive technical program that highlights the latest advancements in research and technology, drawing thousands of professionals from around the globe annually.

The **High-Performance and Low-Cost Array Signal Processing: New Theories and Best Practices in Emerging Applications** workshop is a satellite workshop associated with ICASSP 2025. This workshop aims to unite researchers, practitioners, and students engaged in array signal processing, providing a platform to exchange knowledge on emerging theories and best practices in the field.

Array signal processing has experienced rapid growth and widespread application in various domains, including communications, radar, sonar, seismic exploration, medical imaging, and radio astronomy. Over the past decade, significant strides have been made in this area. However, there is a widespread misalignment of theoretical research and practical needs, which mainly manifests itself in the reasonability of assumptions, computational limitations, and implementation feasibility. This workshop seeks to bridge this gap by fostering an exchange of ideas among individuals from diverse backgrounds, thereby promoting collaboration that leads to innovative solutions and practical advancements in the field.

Specific topics of interest include, but are not limited to:

- Array signal processing under mismatched models
- Implementation of array processing systems
- Experimental evaluation of array processing systems
- Modeling physical constraints in array signal processing
- Sparse array design under physical constraints
- Robustness of sparse arrays
- Sparse arrays in integrated sensing and communication systems
- Sparse arrays in the near field and mixed fields scenarios
- Super-resolution algorithms with low computational complexity
- Decentralized array signal processing techniques
- Efficient techniques with low memory and battery consumption
- Emerging hardware constraints in array signal processing
- Practical computational and statistical methods for arrays
- Approximation theory and convex geometry in array signal processing
- Novel theory and methods for multilinear signal processing

Other Important Information:

- Submitted workshop papers should abide by the ICASSP 2025 paper style, format, and length, and the peer-reviewing process will follow the main conference reviewing guidelines.
- The workshop papers will be published at the IEEE Xplore Digital Library (with a separate conference record number).
- The paper submission and reviewing process will be conducted through the ICASSP 2025 paper management system.
- There must be an author of each accepted workshop paper presenting it in-person.
- The workshop attendance will be free-of-charge for the main conference registrants, while a reduced registration fee will be charged to workshop-only attendees.

For more information: signal-process.github.io