



The 38th IEEE International Workshop on Signal Processing Systems (SiPS) is a premier international forum in the area of design, implementation and application of signal processing systems. It addresses all aspects of architecture and design methods of these systems. Emphasis is on current and future challenges in research and development in both academia and industry.

Call for Papers

Authors are invited to submit papers in the following areas, but not limited to:

Design Methods of Signal Processing Systems:

- Optimization of signal processing algorithms
- Compilers and tools for signal processing systems
- Algorithm-to-architecture transformation
- Dataflow-based design methodologies

Software Implementation of Signal Processing Systems:

- Software on programmable digital signal processors
- Application-specific instruction-set processor (ASIP) architectures and systems
- SIMD, VLIW, and multi-core CPU architectures
- GPU-based massively parallel implementation

Hardware Implementation of Signal Processing Systems:

- Low power/complexity signal processing circuits & applications
- FPGA and reconfigurable architecture-based systems
- System-on-chip and network-on-chip
- VLSI for sensor network and RF identification systems
- Quantum signal processing
- Neuromorphic computing

- Edge and embedded computing

Signal Processing Application Systems:

- Audio, speech, and language processing
- Biomedical signal processing and bioinformatics
- Image, video, and multimedia signal processing
- Information forensics, security, and cryptography
- Radar, sonar and acoustic sensing systems
- Robotics and autonomous systems
- Sensor arrays and networks and their applications
- Signal processing for non-volatile memory systems
- Wireless communications and internet of things
- Signal processing for mixed-signal technologies

Machine Learning and AI for Signal Processing:

- Circuits and systems for AI
- Resource-efficient machine learning and AI
- Tools/platforms for AI
- Hardware/neuromorphic accelerators
- Hardware/software co-design and automation for AI
- Applications of generative AI and foundation models

Other Emerging Topics in Signal Processing Systems

Important Dates

Tutorial Proposals:

27th April 2025

Special Session Proposals:

11th May 2025

Technical Papers Deadline:

1st June 2025

Notification of Acceptance:

3rd August 2025

Final Manuscript Submission:

31st August 2025

Advance Registration Deadline:

31st August 2025

For Submission Details, Visit:

events.polyu.edu.hk/sips2025

Organising Committee

General Co-Chairs:

Wei Liu
The Hong Kong Polytechnic University
Brian Telfer
MIT Lincoln Laboratory

Technical Co-Chairs:

Xinmiao Zhang
Ohio State University
Rodrigo C. de Lamare
PUC-Rio

Publicity Co-Chairs:

Thanos Stouraitis
Khalifa University
Yimin D. Zhang
Temple University

Special Sessions Chair:

Lei Zhang
University of Glasgow

Finance Chair:

Qing Shen
Beijing Institute of Technology

Industry Liaison:

Chi-Wah Kok
Canaan Semiconductor Pty Ltd

Publication Chair:

Junwei Zhang
Communication University of China

Local Arrangement Chair:

Ivan Wang-Hei Ho
The Hong Kong Polytechnic University