

# CALL FOR PAPERS

## 57<sup>th</sup> Annual Asilomar Conference on Signals, Systems, and Computers



Asilomar Hotel and Conference Grounds

Pacific Grove, California

October 29 – November 1, 2023

[www.asilomarssc.org](http://www.asilomarssc.org)



Authors are invited to submit papers in the following areas:

**A. Communications Systems:** 1. Modulation and Coding, 2. Cognitive Radios and Spectrum Sharing, 3. Ultra-Low Latency, 4. Optimization, 5. Physical Layer Security and Privacy, 6. mmWave and THz, 7. Underwater, 8. Wireline and Optical Communications, 9. Satellite, 10. IoT, 11. V2V, 12. 5G and Beyond.

**B. MIMO Communications and Signal Processing:** 1. Multiuser and Massive MIMO, 2. Channel Estimation and Equalization, 3. Full-Duplex, 4. Cooperation and Relaying, 5. Interference Management and Awareness, 6. mmWave and THz, 7. Optimization, 8. Cell-Free Systems, 9. Intelligent Reflective Surfaces.

**C. Networks:** 1. Wireless Networks, 2. IoT, 3. Network Information Theory, 4. Optimization, 5. Graph Signal Processing, 6. Social Networks, 7. Distributed Algorithms, 8. Security, 9. Computational Offloading, 10. Self-Organizing Networks, 11. UAV and V2V Networks, 12. Smart Grids.

**D. Adaptive Systems, Machine Learning, and Data Science:**

1. Compressive Sensing, 2. Supervised and Self-Supervised Learning, 3. Estimation and Inference, 4. Adaptive and Cognitive Systems, 5. Adaptive Filtering, 6. Fast and Scalable Algorithms, 7. High-Dimensional Large-Scale Data Analytics, 8. Distributed Computation and Storage, 9. Deep Learning, 10. Reinforcement Learning.

**E. Array Processing and Multisensor Systems:** 1. Source Localization and Separation, 2. Beamforming, 3. Robust Methods, 4. MIMO and Cognitive Radars, 5. Tensor Models and Processing,

6. Sparse Sensor Arrays, 7. Optimization, 8. Applications (Imaging, Radar, Sonar, Microphone Arrays, etc).

**F. Biomedical Signal and Image Processing:** 1. Molecular and Medical Imaging, 2. Computational Imaging, 3. Neuroengineering, 4. Processing of Physiological Signals, 5. Bioinformatics and Computational Biology, 6. Image Registration and Multimodal Imaging, 7. Functional Imaging, 8. Brain Machine Interfaces, 9. Neural Signal Processing, 10. Computational Neuroscience.

**G. Architectures and Implementation:** 1. Energy Efficiency, 2. Accelerators, 3. Reconfigurable Processing, 4. Non-idealities, 5. Multicore, Many-core, and Distributed Systems, 6. Algorithm and Architecture Co-optimization, 7. Architectures for Big Data, 8. Architectures for Machine Learning, 9. Processing In-Memory, 10. Cyber-Physical Systems, 11. Testbeds, 12. Mixed-Signal Processors, 13. Computer Arithmetic and Algorithms.

**H. Speech, Image, and Video Processing:** 1. Speech Coding, 2. Speech Recognition, 3. Audio Coding, 4. Document Processing, 5. Models for Speech and Image Processing, 6. Image and Video Coding, 7. Learning and Autonomous Systems, 8. Computer Vision, Image and Video Analysis, 9. Image and Video Forensics, 10. Biometrics and Security, 11. Hybrid Imaging Systems.

Submissions must include a 100–200 word abstract, an extended summary (500–1000 words plus figures), the title of the paper, each author's name and affiliation, technical area, and topic designation from the above list. To be eligible to take part in the student paper competition, the submission of a full paper (5-8 pages) is required. The conference website ([www.asilomarssc.org](http://www.asilomarssc.org)) provides specific information on the electronic submission and publication processes. The conference executive committee and IEEE reserve the right to exclude a final paper submission from inclusion in the conference proceedings, if the final paper submission does not meet conference or IEEE standards for scope and/or quality. Submissions will be accepted starting March 31, 2023. **All submissions must be received by May 1, 2023.**

- **No more than FOUR submissions are allowed per contributor, as author or co-author.**
- **To have a paper published, an author must register and present the paper at the conference.**

Notifications of acceptance will be mailed by mid-July 2023. Full final papers are due shortly after the conference and published in early 2024. All technical questions should be directed to the Technical Program Chair **Prof. Chinmay Hegde** ([chinmay.h@nyu.edu](mailto:chinmay.h@nyu.edu)) or to the General Chair **Prof. Marco F. Duarte** ([mduarte@ecs.umass.edu](mailto:mduarte@ecs.umass.edu)). Prospective organizers of special sessions containing typically four papers are invited to submit proposals to the General or Technical Chair by February 10, 2023. Proposals must include title, topic, rationale, session outline, contact information, and a description of the session organization with paper titles and contact information for proposed special session authors.

### CONFERENCE COMMITTEE (\* serving in her capacity)

General Chair: Marco F. Duarte, *University of Massachusetts Amherst*  
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The site for the 2023 Conference is at the Asilomar Conference Grounds, in Pacific Grove, CA. The grounds border the Pacific Ocean and are close to Monterey, Carmel, and the scenic Seventeen Mile Drive in Pebble Beach. The Conference is organized by the non-profit SS&C Conference Corporation.