CALL FOR PAPERS
58th Annual Asilomar Conference on Signals, Systems, and Computers

Asilomar Hotel and Conference Grounds
Pacific Grove, California
October 27 – October 30, 2024

www.asilomarssc.org

Authors are invited to submit papers in the following areas:

A. Communication Systems: 1. Modulation and Coding, 2. Channel Estimation and Equalization, 3. ML for Communications, 4. Full Duplex, 5. JC&S, 6. Ultra-Low Latency, 7. Physical Layer Security & Privacy, 8. Underwater Communications, 9. Wireline & Optical Communications, 10. Satellite Communications, 11. Communication Schemes for IoT, V2V, etc. 12. 6G and Beyond

B. MIMO Communications and Signal Processing: 1. Single- and Multi-User MIMO, 2. Massive MIMO, 3. MIMO Channel Estimation 4. Cooperation & Relaying, 5. Interference Management & Awareness, 6. mmWave and THz, 7. Cell-Free Systems, 8. Reconfigurable Intelligent Surfaces

C. Networks and Graphs: 1. Network Information Theory, 2. Distributed Optimization & Algorithms, 3. Graph Signal Processing, 4. Machine Learning over Graphs, 5. Federated Learning, 6. Wireless Networks, 7. IoT, 8. Social Networks and Network Science, 9. Data Networks & Computational Offloading, 10. Transportation, UAV & V2V Networks, 11. Power Networks & Smart Grids

D. Adaptive Systems, Machine Learning, and Data Analytics: 1. Adaptive Filtering, 2. Adaptive and Cognitive Systems, 3. Estimation and Inference, 4. Compressive Sensing and Sparse Recovery, 5. Models for High-Dimensional Large-Scale Data, 6. Optimization, 7. Online Learning and Regret Minimization, 8. Learning Theory and Algorithms, 9. Self- and Semi-supervised Learning, 10. Deep Learning, 11. Reinforcement Learning

E. Array Processing and Multisensor Systems: 1. Source Localization and Separation, 2. DoA Estimation, 3. Tensor Models and Processing, 4. ML for Array Processing and Multisensor Systems, 5. Sparse Sensor Arrays, 6. Robust Methods, 7. Applications (Imaging, MIMO Radar, JC&S, 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. Computer Arithmetic and Algorithms, 2. Algorithm and Architecture Co-optimization, 3. Hardware Accelerators, 4. Reconfigurable Processing, 5. Multi-core, Many-core, and Distributed Systems, 6. Architectures for ML, 7. In-Memory Processing, 8. Cyber-Physical Systems, 9. Mixed-Signal Processors, 10. Testbeds, 11. Emerging Technologies

H. Speech, Image and Video Processing: 1. Speech Coding, 2. Speech Recognition, 3. Audio Coding, 4. Document Processing, 5. Models for Speech & Image Processing, 6. Image & Video Coding, 7. Learning and Autonomous Systems, 8. Natural Language Processing, 9. Computer Vision, Image and Video Analysis, 10. Image & Video Forensics, 11. Biometrics & Security, 12. 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. Refer to the conference website for specific information on 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 April 1, 2024. **All submissions must be received by May 1, 2024**.

- **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 2024. Full final papers are due shortly after the conference and published in early 2025. All technical questions should be directed to the Technical Program Chair **Prof. Antonio G. Marques** (antonio.garcia.marques@urjc.es) or to the General Chair **Prof. Mario Huemer** (mario.huemer@jku.at). Prospective organizers of special sessions containing typically four papers are invited to submit proposals to the General or Technical Chair by February 15, 2024. 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)

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The site for the 2024 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.