



The 24th IEEE Topical Meeting on Silicon Monolithic Integrated Circuits in RF Systems

21-24 January 2024 Grand Hyatt San Antonio River Walk, San Antonio, TX, USA



<https://www.radiowirelessweek.org/>

Paper Deadline
25 July 2023

Call for Papers

IEEE Topical Meetings on Silicon Monolithic Integrated Circuits in RF Systems have been at the forefront of moving Silicon technologies into microwave, millimeter-wave and THz applications – a development now widely accepted, and of great importance. RF CMOS and Si/SiGe BiCMOS technologies are well established in commercial and defense applications.

SiRF 2024 will mark the 24th topical meeting on SiRF, with a renewed emphasis on promoting a dialogue between IC designers and researchers promoting non-standard technologies, exploiting the maturity of Silicon processes, but addressing the challenges of tomorrow. The three days of SiRF 2024 will chronicle recent advances in our dynamic field, and provide the platform for developing new ideas, and candid exchange, facilitated by SiRF's single-session format. As in past years, a line-up of reputed invited speakers will stimulate our discussions, with an emphasis on emerging technologies.

For more details, visit: <https://www.radiowirelessweek.org/conferences/sirf/>

SiRF 2024 solicits papers in the following focus areas:

1. RF, Millimeter-wave and THz Integrated Circuit

- Front ends
- Integrated Transceivers and Transceiver sub-systems
- MIMO and Phased Array Integrated Circuits
- Ultra-Wideband Front ends and Building Blocks
- Emerging Technologies, 5G and 6G Front ends
- mmw & THz Imaging Circuits
- System-on-Chip and System-on-Package
- Smart Antennas and Integrated Meta-Surfaces
- RF, mmW and THz Circuit Building Blocks
- Reconfigurable Radio Front ends
- Wireless Sensors and Sensor Systems
- Low Power RFIC for Biomedical Applications

2. Wireline Communication Circuits and Building Blocks

- Wideband Transmitter, Receiver and Transceivers
- High Frequency Oscillators and Signal Generators
- PLLs and Frequency Synthesizer Integrated Circuits
- Clock and Data Recovery Circuits
- Precise Timing Circuits
- High-Speed Modulators and Drivers

3. High Speed Data Converters & Mixed Signal Circuits

- Nyquist Rate and Oversampling A/D and D/A Converters
- Embedded & Application-Specific A/D and D/A Converters
- Analog to Information Conversion
- Time-to-Digital Converters
- Analog Circuits and Building Blocks
- Digitally Assisted Analog Circuits and Analog Calibration
- MEMS/sensor Interface Circuits

4. Silicon Photonics and Electronic-Photonic Integrated Circuits

- Wideband Electronic-Photonic Circuits
- Electronic-Photonic Modulators
- Electronic-Photonic Receives
- Wideband TIAs and Drivers
- LIDARS
- Optical PLLs
- Radio Over Fiber Circuits

5. Devices, Technology, Modeling and Materials

- Advanced RF CMOS and SiGe BiCMOS Devices
- Si-Based Heterostructures
- Through-Silicon Via Integration
- RF MEMs and Micromachining
- Advanced Device Modeling
- Advanced Packaging
- Epitaxy
- Strain Engineering
- Characterization and Stability Issues
- Smart Materials
- Nano Technologies Including CNT, Nanowire and Graphene

6. Measurement and Modeling

- Multi-Physics Modeling
- EM Simulation of Complex RFICs
- Robust Measurement and De-Embedding
- Built-In Self-Test
- Self-Calibration
- High Throughput RFIC Testing

MEETING DETAILS

SiRF 2024 will be held during Radio and Wireless Week in San Antonio, TX, along with the Radio and Wireless Symposium (RWS), the Topical Conference on Power Amplifiers for Wireless and Radio Applications (PAWR), the Topical Meeting on Wireless Sensors and Sensor Networks (WisNet), and the Space Hardware and Radio Conference (SHaRC).

Conference Chair

Robert Schmid, *Johns Hopkins Applied Physics Lab*

Technical Program Chair

Mehmet Kaynak, *IHP Microelectronics*

Publicity Chair

Ickhyun Song, *Hanyang University*

International Liaison

Europe – Mehmet Kaynak
IHP Microelectronics

Asia – Chien-Nan Kuo,
National Chiao Tung University

Executive Committee

Yi-Jan Emery Chen
National Taiwan University

Julio Costa
Qorvo

Vadim Issakov
University Magdeburg

Mehmet Kaynak
IHP Microelectronics

Eric Kerherve
University of Bordeaux

Dietmar Kissinger
Ulm University

Chien-Nan Kuo
National Chiao Tung University

Hao Li
Infineon Technologies

Donald Lie
Texas Tech University

Venkata Koushik Malladi
NXP Semiconductors

Monte Miller
NXP Semiconductors

Sergio Pacheco
Uhnder

Nils Pohl
Ruhr-Universität Bochum

Jae-Sung Rieh
Korea University

Hasan Sharifi
HRL Labs

Ahmet Cagri Ulusoy
Karlsruhe Institute of Technology

Václav Valenta
ESA / ESTEC

Roe Ben Yishay
Intel Corporation

Paper submission instructions can be found at <http://www.radiowirelessweek.org/>. Submissions should be formatted according to the submission review template available on the RWW website. Authors should indicate preference for oral or poster presentation. All submissions must be received by **25 July 2023**. All accepted papers will be published in a digest and included in the IEEE Xplore® Digital Library. Submissions will be evaluated based on novelty, significance of the work, technical content, interest to the audience, and quality of writing.