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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 2022 will mark the 22nd 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 2022 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: <http://www.radiowirelessweek.org/sirf-home>

SiRF 2022 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 Receivers
- 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

MEETING DETAILS

SiRF 2022 will be held during Radio and Wireless Week in Las Vegas, NV, 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).

Authors of papers presented at RWW 2022 will be invited to submit an expanded version to the **IEEE T-MTT Mini-Special Issue**.

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 2021**. 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.