

## Call for Papers

# SIRF

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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 22<sup>st</sup> 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:

- **Circuits:**  
Microwave, mm-wave, THz and mixed-signal building blocks, sub-systems and multi-functional ICs, integrated transceivers, high-speed DACs and ADCs, RFICs, reconfigurable micro-/mm-wave ICs.
- **Applications:**  
System-on-Chip (SoC) and System-in-Package (SiP), ultra-wideband (UWB) frontends, wireless sensor networks, intelligent antennas and antenna array solutions, emerging telecom (e.g. 60 GHz WLAN, E-band, 5G and 6G) and sensor systems (automotive, security, health monitoring), radio over fiber.
- **Si photonics:**  
Si-based photonic components, integration with electronic circuits, new circuit and system architectures based on PIC and EPIC technologies.
- **Technology and materials:**  
Nanotechnologies including CNT, nanowire and graphene; Si-based heterostructures, advanced RF CMOS and Si/SiGe BiCMOS including through-Si vias integration; RF MEMS and micromachining, advanced packaging, epitaxy, strain engineering, characterization, stability issues, smart materials.
- **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.

### PAPER SUBMISSION GUIDELINE

Submit a **three-page** manuscript in PDF format online and clearly indicate the advances over the state-of-the-art. Papers include: 1) the names of all authors and their affiliations, 2) whether this is a student paper, and 3) the mailing address, phone number, fax number, and email address of the corresponding author. Use the template provided on the SiRF website. Accepted papers will be submitted to the IEEE Xplore Digital Library.

### OPPORTUNITY FOR IEEE JOURNAL PUBLICATION OF EXTENDED PAPERS

A set of selected conference papers is planned for submission to the IEEE Transactions on Microwave Theory and Techniques, for publication in a single issue. Papers will need to be significantly expanded from the conference version and will go through the regular review process for publication.

### 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).

**Abstract Submission Deadline: 25 July 2021**