IEEE MTT-S

SiRF

SiRF 2011

The 11th IEEE Topical Meeting on Silicon Monolithic Integrated Circuits in RF Systems

Held during the Radio and Wireless Week
January 17-19, 2011, Phoenix, Arizona, USA

Second Call for Papers

This *11th Topical Meeting on Silicon Monolithic Integrated Circuits in RF Systems (SiRF2011)* continues to be the only conference devoted to Si-based devices, passives, integrated circuits, and applications for high frequency systems(http://www.silicon-rf.org/).

Over three days, papers and sessions will highlight the significant technological advances of this dynamic field, as well as provide a unique forum for the presentation of new ideas and candid exchange on emerging challenges and opportunities. Invited tutorial talks from international experts will be presented in key topical areas. A student paper competition will be held, and prizes will be given at the conference banquet.

Technical papers are solicited in the following areas, but all papers related to Si-based RF systems are welcome:

- **Materials**: Epitaxy, strain engineering, characterization, stability issues, smart materials.
- **Devices**: Physics, optimization, and scaling limits of SiGe HBTs, RF-CMOS, SOI CMOS, strained-Si CMOS, SiGe MOSFETs, Si-based MODFETs, mm-wave diodes, RF CNT devices.
- **IC Technologies**: Novel device structures, HBT and CMOS integration issues, heterogeneous integration, interconnects, fabrication on high-resistivity Si and SOI, packaging issues, IC on polymer/ paper.
- **Circuits**: Microwave and mm-wave building blocks, integrated transceivers, high-speed DAC and ADC, analog/mixed-signal circuit blocks, RFICs, RF sensors, RF power meters, RF biosensors.
- **Passives**: Inductors, capacitors, thin film resistors, transmission lines, integrated antennas, transformers.
- **MEMS/NEMS**: RF MEMS, micro-machining for improved passives, integration with Si-based circuits.
- **Reliability Issues**: Yield and reliability concerns in high-frequency Si-based circuits, signal isolation issues, interference, substrate noise, RF impedance mismatch robustness, cooling architecture.
- **Measurement and Modeling**: Multi-physics modeling, electromagnetic simulation of complex RF systems, robust measurement and de-embedding techniques, methods of built-in-self-test and built-in-self-calibration, correlation of high-frequency parameters with easy-to-measure DC/AC parameters.
- **Applications**: system-on-a-chip (SoC) and system-in-a-package (SiP) solutions for mm-wave sub-systems and systems, integration of Si-based photonic elements with electronic circuits, UWB architecture, RFI, wireless sensor architectures, health monitoring, medical diagnostics.
- **Nanoscale microwave**: Nano (CNT, nanowire, dots, graphene), quantum, Multi Gigabit optical, and THz materials, devices and circuits.

***Submission Deadline Extended*: August 6, 2010**

PAPER SUBMISSION GUIDELINES

Authors must submit a two to four page manuscript in *pdf* format online and must clearly indicate how the work advances the-state-of-the-art. Papers should 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. Papers submitted to *SiRF 2011* must NOT be submitted to the Radio Wireless Symposium.

MEETING DETAILS

This meeting will be held during the *Radio and Wireless Week* in Phoenix, AZ with joint sessions between *SiRF 2011* and the *Radio and Wireless Symposium (RWS)*. Our popular single session format allows active interactions between all participants. A refereed IEEE conference proceeding will be published, and a best student paper competition will be held.