



SiRF 2008

The 8th Topical Meeting on Silicon Monolithic Integrated Circuits in RF Systems

January 23-25, 2008

Orlando, FL, USA

Call for Papers

This 8th Topical Meeting on Silicon Monolithic Integrated Circuits in RF Systems (SiRF 2008) continues to be the only conference devoted to Si-based devices, passives, integrated circuits, and applications for high-frequency systems. 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 the emerging challenges and opportunities. Invited tutorial talks from international experts will be presented in key topical areas.

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

- **Materials:** epitaxial growth, strain engineering, characterization methods, stability issues, defects
- **Devices:** physics, optimization, and scaling limits of SiGe HBTs, RF-CMOS, SOI CMOS, strained-Si CMOS, SiGe MOSFETs, Si-based MODFETs, diodes that are applicable to RF, microwave, and millimeter-wave circuits and systems
- **IC Technologies:** novel device structures, SiGe HBT and CMOS integration issues, heterogeneously integrated devices and circuits, interconnects, fabrication on high-resistivity Si and SOI, packaging issues
- **Circuits:** RF, microwave, and mm-wave building blocks (LNA, mixer, VCO, PA, switches, filters), integrated transceivers, high-speed DAC and ADC, integrated transponders, analog/mixed-signal circuit blocks
- **Passives:** inductors, capacitors, thin film resistors, transmission lines, integrated antennae, transformers
- **MEMS:** RF MEMS, micro-machining for improved passives, integration with Si-based circuits and systems, FBARs
- **Reliability Issues:** yield and reliability concerns in high-frequency Si-based devices, passives and circuits, digital/RF circuit integration challenges, signal isolation issues, interference, substrate noise, RF impedance mismatch robustness, cooling architecture for devices and circuits
- **Measurement and Modeling:** compact modeling of Si-based transistors, robust measurement and de-embedding techniques, methods of built-in-self-test and built-in-self-calibration, models to correlate high-frequency parameters with easy-to-measure DC/AC parameters
- **Applications:** system-on-a-chip (SoC) and system-in-a-package (SiP) solutions utilizing the low-cost and high-level integration advantages of Si technology for RF, microwave, and mm-wave sub-systems and systems, integration of Si-based photonic elements with electronic circuits
- **Emerging Technologies:** Nano, quantum, optical, and THz technology devices and circuits

Submission Deadline: July 20, 2007

PAPER SUBMISSION GUIDELINES

Authors must submit a **four-page abstract** in *pdf* format by following the template for consideration by the Technical Program Committee, 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 2008 must NOT be submitted to the other two conferences of the *Radio and Wireless Week*.

MEETING DETAILS

This meeting will be held during the *Radio and Wireless Week* (<http://www.radiowireless.org/>) in Orlando, FL with joint sessions between *Radio and Wireless Symposium (RWS)* and *Power Amplifier Symposium (PAS)*. 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. Questions on the conference details and paper submission procedure may be found at the conference web site: <http://www.eng.auburn.edu/~niuguof/sirf/>.

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Zhenqiang (Jack) Ma
U. of Wisconsin-Madison

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