



SiRF

SiRF2010

SiRF2010

The 10th Topical Meeting on Silicon Monolithic Integrated Circuits in RF Systems

To be held during the Radio and Wireless Week
January 11-13, 2010, New Orleans, Louisiana, USA

Call for Late News Papers

Conference Co-Chairs

Erich Kasper, *University of Stuttgart*
Robert Weigel, *University of Erlangen*

Technical Program Chairs

Hermann Schumacher, *Ulm University*
Robert Plana, *LAAS-CNRS*

Publicity

Peter Russer, *TU Munich*

Finance

Clemens Ruppel, *EPCOS*

Student Paper Award

Hermann Schumacher, *Ulm University*

Local Arrangement

Guofu Niu, *Auburn University*

Webmaster

Dietmar Kissinger, *Univ. of Erlangen*

US Coordinator

Guofu Niu, *Auburn University*

RWW Liaison

George Ponchak, *NASA*

Executive Committee

John D. Cressler
Georgia Tech
Rhonda Drayton
University of Minnesota
Basanth Jagannathan
IBM Corporation
Erich Kasper
University of Stuttgart
Rudolf Lachner
Infineon Technologies AG
Liang-Hung Lu
Nat'l Taiwan University
Zhenqiang (Jack) Ma
University of Wisconsin-Madison
Guofu Niu
Auburn University
Sergio Pacheco
Freescale Semiconductor
Dimitrios Peroulis
Purdue University
Robert Plana
LAAS-CNRS
George Ponchak
NASA Glenn Research Center
Jae-Sung Rieh
Korea University
Clemens Ruppel
EPCOS AG
Katsuyoshi Washio
Hitachi Ltd
Robert Weigel
University of Erlangen

This 10th Topical Meeting on Silicon Monolithic Integrated Circuits in RF Systems (SiRF2010) 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.

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, RF sensors, RF powermeters, 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 timeframe: Sept. 17-23, 2009

PAPER SUBMISSION GUIDELINES

Authors must submit a four page manuscript in *pdf* format online and must clearly indicate how the work advances the-state-of-the-art.

Careful manuscript preparation following the guidelines given on the website for full papers is requested. A revision after the deadline Sept. 23 is not possible.

MEETING DETAILS

This meeting will be held during the *Radio and Wireless Week* (<http://radiowirelessweek.org/rww2010/>) in New Orleans with joint sessions between SiRF and *Radio and Wireless Symposium (RWS)*. Our popular single session format allows active interactions between all participants. Refereed IEEE conference proceedings will be published, and a best student paper competition will be held.