



CALL FOR PAPERS

2010 BIPOLAR/BiCMOS CIRCUITS AND TECHNOLOGY MEETING

Austin, Texas, USA

www.ieee-bctm.org

Short Course: Monday October 4, 2010, Conference: Tuesday and Wednesday October 5-6, 2010

Modeling Workshop: Thursday October 7, 2010

The Bipolar/BiCMOS Circuits and Technology Meeting (BCTM) is a forum for technical communication focused on the needs and interests of the bipolar and BiCMOS community. Papers covering the design, performance, fabrication, testing and application of bipolar and BiCMOS integrated circuits, bipolar phenomena, and discrete bipolar devices are solicited. All papers must be suitable for a twenty-minute presentation. Text and figures must not have been presented at other conferences or published in any scientific or technical publications prior to BCTM.

Publication in the BCTM 2009 Proceedings does not preclude publication in an IEEE journal, and authors are encouraged to do so. A Special Issue of the *IEEE Journal of Solid-State Circuits* will include selected papers from BCTM 2009.

Papers are solicited in the following areas:

ANALOG / DIGITAL CIRCUIT DESIGN: Analog ICs - Digital ICs - Mixed analog/digital ICs - Novel design concepts and methods - DACs and ADCs - Amplifiers - Integrated filters - Communications ICs - Sensors - Gate arrays - Cell libraries - Voltage references - Analog subsystems within a VLSI chip - Packaging of high-performance ICs. High-voltage ICs - Automotive electronics, disc drives, display drivers, power supplies, electric utility, medical electronics, motor controls, regulators, amplifiers, converters, aerospace electronics.

RADIO FREQUENCY CIRCUIT DESIGN: Low Noise Amplifiers - Automatic gain control - VCOs - Mixers - Active gyrators - Power amplifiers - RF DMOS-based circuits - Switches - Noise suppression techniques - Frequency synthesizers - Radio subsystems - Packaging of RF components - Designing with integrated passive components at RF frequencies - Millimeter-wave circuits and systems.

WIRELINE COMMUNICATIONS: LAN, WAN, FDDI, Ethernet, Metro, Fiber channel, SONET, ATM, ISDN, xDSL, optical data links - Power-line/phone-line networks - Cable modems, broadband circuits - MUX/DEMUX - Clock and data recovery - Error coding and correction - Crosspoint switches - Laser and modulator drivers - Preamplifiers - AGC amplifiers - Decision circuits - Equalizers - Optical networking ICs.

DEVICE PHYSICS: New device physics phenomena in Si, SiGe, and III-V devices - Device design issues and scaling limits - Hot electron effects and reliability physics - Transport and high field phenomena - Noise - Linearity/Distortion - Novel measurement techniques - Operation in extreme environments (low and high temperatures, radiation effects).

MODELING / SIMULATION: Improved BJT and HBT models - Behavioral modeling techniques - Parameter extraction methods and test structures - De-embedding techniques - RF and thermal simulation techniques - Modeling of passives, interconnect and packages - Statistical modeling - Device, process and circuit simulation. CAD/modeling of power devices, packaging of power devices, and ESD phenomena.

PROCESS TECHNOLOGY: Advances in processes and device structures demonstrating high speed, low power, low noise, high current, high voltage, etc. BiCMOS processes - Advanced process techniques - Si and Si-C homojunction bipolar/BiCMOS devices, III-V and SiGe heterojunction bipolar/BiCMOS devices. Manufacturing solutions related to Bipolar and BiCMOS yield improvements. Fabrication of high-performance passive components, including, MEMs. Process technology related to discrete and integrated bipolar/BiCMOS power devices, IGBT, RF power devices including DMOS. Wide bandgap bipolar devices (eg. SiC, GaN, GaAs etc.) and related process technology.

STUDENT PAPERS ARE ENCOURAGED

If you know of people who may have a paper to contribute please bring this Call for Papers to their attention.

IMPORTANT DEADLINES FOR AUTHORS

Monday, May 3, 2010	Deadline for receipt of abstract and summary
Friday, June 11, 2010	Notification of acceptance to be sent by email
Friday, July 23, 2010	Final proceedings manuscript due

SUBMISSION AND CONTACT INFORMATION

Visit the conference website: www.ieee-bctm.org, or contact:

Jan Jopke, Conference Manager, CCS Associates, 6611 Countryside Drive, Eden Prairie, MN 55346, USA

TEL: 1-952-934-5082, FAX: 1-952-934-6741 E-mail: ccsevents@comcast.net.