

**DRC TECHNICAL PROGRAM
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**Announcement of the
63rd Annual**



June 20–22, 2005

CALL FOR PAPERS

Abstract Deadline: March 24, 2005

Late News Deadline: June 4, 2005

General Information:

www.tms.org/DRC.html

Abstract Submission:

www.deviceresearchconference.org



The DRC brings together scientists, engineers, and students to present breakthroughs and advances in device research. DRC is sponsored by the IEEE, Electron Devices Society. The conference will be held at the University of California, Santa Barbara, CA from Monday, June 20 through Wednesday, June 22, 2005.

The DRC will be coordinated with the EMC (Electronic Materials Conference) during the same week, June 22-24, 2005, at the University of California. The coordinated efforts are made in recognition of the strong interaction between device and electronic materials research and provides for fruitful exchange of information between attendees of both conferences. For further information about the EMC, see www.tms.org/EMC.html.

PLENARY AND INVITED SPEAKERS

Plenary and invited speakers will present the latest developments in emerging device technologies including organic devices, quantum devices, spin devices, phase change memory, wide bandgap devices, optical devices, power devices, carbon nanotube devices, scaled Si and SiGe devices, III-V transistors, and devices fabricated using nanoparticles, nanowires, and atomically thin carbon films

Plenary Speakers:

Alan Heeger (University of California, Santa Barbara)
Federico Capasso (Harvard University)
Supriyo Datta (Purdue University)

Partial List of Invited Speakers:

Greg Atwood (Intel)
Alain Cappy (IEMN)
Larry Coldren (University of California, Santa Barbara)
James Cooper (Purdue University)
Kazukiyo Joshin (Fujitsu)
Philip Kim (Columbia University)
Victor Klimov (Los Alamos)
Joachim Knoch (Research Center, Juelich)

Michael McGehee (Stanford University)
Lars Samuelson (Lund University)
Seshadri Subbanna (IBM)
Zikang Tan (Hong Kong University)

POSTER AND RUMP SESSIONS

Building on the success of poster sessions in previous years, abstracts will again be accepted for poster presentations at DRC 2005. In the DRC tradition, rump sessions will continue to provide a forum for frank discussion of contentious topics in device research and applications.

BEST STUDENT PAPER AWARD

Papers presented by students, based on their own research, are eligible for this annual award. The abstract must be identified as a "Student Paper" during the submission process to be eligible for this award.

CALL FOR PAPERS

Authors are requested to see the DRC website, www.deviceresearchconference.org for paper submission instructions, or contact Theresa Mayer, Technical Program Chair. Abstracts sent by facsimile will not be accepted.

Abstracts submitted to DRC may not be submitted to EMC.

ABSTRACT DEADLINE: March 24, 2005

FURTHER INFORMATION

Note: Registration and Housing information will be available in April 2005.

Early registration is encouraged with a reduced registration fee offered as an incentive. Students will also receive a reduced registration fee. Limited travel funds are available to students presenting papers. Further information on student assistance will be available on the conference website, www.deviceresearchconference.org.

**PAPERS ARE SOLICITED ON
HIGH PERFORMANCE AND
NOVEL DEVICES
INCLUDING, BUT NOT
LIMITED TO THE
FOLLOWING:**

- Amorphous and polycrystalline devices
- Biological device concepts
- Carbon nanotube devices
- Device modeling
- Device reliability
- Display and imaging devices
- III-V FET and bipolar transistors
- Flexible electronics
- Integrated optoelectronics
- Lasers, LEDs, and optical amplifiers
- Magnetic devices
- Micro/nanoelectromechanical devices
- Millimeter wave and ultrafast devices
- Molecular devices
- Nanofabrication technology for devices
- Nanophotonic and photonic bandgap devices
- Nanoscale devices
- Nonvolatile, static, and dynamic memory
- Organic emitters and transistors
- Photodetectors
- Power devices
- Quantum-effect and single-electron devices
- Self-assembled devices
- Sensors
- SiGe and Si CMOS/BiCMOS
- Scaled Si devices
- SOI and 3-D devices
- Spin-based devices
- Superconducting devices
- Terahertz emitters and detectors
- Thin film transistors
- Tunable photonic devices
- Tunneling and hot-electron devices
- Wide-bandgap devices

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