

ANNOUNCEMENT and FINAL CALL FOR PAPERS



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2012 IEEE NUCLEAR AND SPACE RADIATION EFFECTS CONFERENCE Short Course and Radiation Effects Data Workshop

July 16 - 20, 2012

**InterContinental Miami Hotel
Miami, Florida**

The 2012 IEEE Nuclear and Space Radiation Effects Conference will be held July 16 - 20 at the InterContinental Miami. The conference features a technical program consisting of eight to ten technical sessions of contributed papers describing the latest observations in radiation effects, a Short Course on radiation effects offered on July 16, a Radiation Effects Data Workshop, and an Industrial Exhibit. The technical program includes oral and poster sessions.

Papers on nuclear and space radiation effects on electronic and photonic materials, devices, circuits, sensors, and systems, as well as semiconductor processing technology and design techniques for producing radiation-tolerant (hardened) devices and integrated circuits, will be presented at this meeting of engineers, scientists, and managers. International participation is strongly encouraged.

We are soliciting papers describing significant new findings in the following or related areas:

Basic Mechanisms of Radiation Effects in Electronic Materials and Devices

- Single Event Charge Collection Phenomena and Mechanisms
- Radiation Transport, Energy Deposition and Dosimetry
- Ionizing Radiation Effects
- Materials and Device Effects
- Displacement Damage
- Processing-Induced Radiation Effects

Radiation Effects on Electronic and Photonic Devices and Circuits

- Single Event Effects
- MOS, Bipolar and Advanced Technologies
- Isolation Technologies, such as SOI and SOS
- Optoelectronic and Optical Devices and Systems
- Methods for Hardened Design and Manufacturing
- Modeling of Devices, Circuits and Systems
- Particle Detectors and Associated Electronics for High-Energy Accelerators and Nuclear Power Facilities
- Cryogenic or High Temperature Effects
- Novel Device Structures, such as MEMS and Nanotechnologies

Space, Atmospheric, and Terrestrial Radiation Effects

- Characterization and Modeling of Radiation Environments
- Space Weather Events and Effects
- Spacecraft Charging
- Predicting and Verifying Soft Error Rates (SER)

Hardness Assurance Technology and Testing

- New Testing Techniques, Guidelines and Hardness Assurance Methodology
- Unique Radiation Exposure Facilities or Novel Instrumentation Methods
- Dosimetry

New Developments of Interest to the Radiation Effects Community

PAPER SUMMARY DEADLINE: FEBRUARY 3, 2012

PROCEDURE FOR SUBMITTING SUMMARIES

Authors must conform to the following requirements:

1. Prepare a single Adobe Acrobat file consisting of a cover page and an informative two to four page summary describing results appropriate for 12-minute oral or a poster presentation. The cover page must provide an abstract no longer than 35 words, the title, name and company affiliation of the authors, and company address (city, state, country). Identify the author presenting the paper and provide telephone, fax, and email address. The summary must include sufficient detail about the work to permit a meaningful technical review. In the summary, clearly indicate (a) the purpose of your work, (b) significant new results with supporting technical material, and (c) how your work advances the state of the art. Show key references to other related work. The summary must be no less than two and no more than four pages in length, including figures and tables. All figures and tables must be large enough to be clearly read. Note that this is more than an abstract, but do not exceed four pages.
2. Prepare your summary in single-column format, using 11 point or greater font size, formatted for either U.S. Standard (8.5 x 11 inch) or A4 (21 x 29.7 cm) page layout, with 1 inch (2.5 cm) margins on all four sides.
3. Obtain all corporate, sponsor, and government approvals and releases necessary for presenting your paper at an open attendance international meeting.
4. Summary submission is electronic only, through www.nsrec.com. The submission process consists of entering the paper title, author(s) and affiliation(s), and an abstract no longer than 35 words. Authors are prompted to state their preference for presentation (oral, poster, or data workshop poster) and for session. Details of the submission process may be found at www.nsrec.com. The final category of all papers will be determined by the Technical Program Committee, which is responsible for selecting final papers from initial submissions.

Summaries must be received by
February 3, 2012

Detailed submission and
formatting instructions
will be available after
January 4, 2012
at www.nsrec.com

Papers accepted for oral or poster presentation at the technical program will be eligible for publication in a special issue of the *IEEE Transactions on Nuclear Science* (December 2012) based upon papers from the Conference. Selection for this issue will be based on a separate submission of a complete paper. These papers will be subject to the standard full peer review given all papers submitted to the *IEEE Transactions on Nuclear Science*. Further information will be sent to prospective authors upon acceptance of their NSREC summary. It is not necessary to be an IEEE member to present a paper or attend the NSREC. However, we encourage IEEE and NPSS membership of all NSREC participants.

RADIATION EFFECTS DATA WORKSHOP

The Radiation Effects Data Workshop is a forum for papers on radiation effects data on electronic devices and systems. Workshop papers are intended to provide radiation response data to scientists and engineers who use electronic devices in a radiation environment, and for designers of radiation-hardened systems. Papers describing new simulation or radiation facilities are also welcomed. **The procedure for submitting a summary to the Workshop is identical to the procedure for submitting NSREC summaries.** Radiation Effects Data Workshop papers will be published in a Workshop Record and are not candidates for publication in the Conference issue of the *IEEE Transactions on Nuclear Science*.

MIAMI, FLORIDA

Discover a new dimension of sophisticated elegance at InterContinental Miami (<http://www.icmiamihotel.com>). This grand downtown Miami hotel offers richly appointed accommodations, as well as fine dining and world-class spa. From a dramatic marble exterior to a newly restyled marble lobby with a soaring atrium and massive marble sculpture, the InterContinental Miami specializes in an international flair. Overlooking beautiful Biscayne Bay, this formidable hotel places you in the epicenter of Miami's pulsing nightlife, brilliant white-sand beaches, golf courses, and sizzling culture. Immerse yourself in the height of cosmopolitan style – walk to nearby entertainment complexes, a myriad of restaurants, and the third largest jewelry district in the U.S.; only minutes by transportation from South Beach and the Art Deco District, the Port of Miami, Coconut Grove, Coral Gables, and Key Biscayne.

- Only 7.5 miles from Miami International Airport (MIA), 25 miles from Fort Lauderdale International Airport (FLL)
- Multilingual, experienced staff (fluent in more than 11 languages)
- Heated outdoor pool/stylish sundeck, overlooking Biscayne Bay
- New modern fitness center, with cutting-edge equipment/beauty salon
- New full-service spa/steam rooms/sauna/stylish lounges
- Three stylish restaurants and cocktail lounges/gift shop/florist



Photo: Courtesy of Ken LaBel