

## First Call for Papers

The deadline for submitting papers is Friday, April 20, 2018



The 2018 RADiation and its Effects on Components and Systems (RADECS) conference will be held September, 16-21, in Svenska Massan congress centre, Gothenburg, Sweden. The conference features a technical program consisting of eleven technical sessions of contributed papers describing the latest observations in radiation effects, a topical day, a Radiation Effects Data Workshop, and an Industrial Exhibit. The technical program includes oral and poster sessions.

RADECS conference is held once a year in Europe, providing to scientists and engineers the latest progress in the field of radiation effects on electronics, optoelectronics devices and systems and design techniques for producing radiation-tolerant electronic devices and systems for space, aviation, accelerators, and ground applications.

2018 RADECS conference will be organized by Cobham Gaisler, Gothenburg, Sweden.

On the first day of the conference (September 17, 2018), a topical day about "Crossover Space: Emerging Concepts for Space Systems," will be offered. The technical program, Radiation Effects Data Workshop, and the Industrial Exhibit will be held from September 18 to September 20.

We are soliciting papers describing new findings in the areas listed next page. This year, there will be a dedicated session related to small satellites (including Cubesats) and constellations.

### COMMITTEE

|                             |  |
|-----------------------------|--|
| General Chair               | - Sandi Habinc, Cobham Gaisler   |
| Technical Chair             | - Christian Poivey, ESA  |
| Topical Day Chair           | - Ken LaBel, NASA  |
| Technical Advisor           | - Richard Sharp, Cobham RAD Europe   |
| Awards Chairs               | - Vincent Pouget, University of Montpellier<br>- Steven McClure, Jet Propulsion Laboratory                     |
| Proceedings Editor          | - Jean-Luc Leray, IEEE   |
| RADECS Liaison              | - Philippe Paillet, CEA  |
| Local Arrangements Exhibits | - Teresa Farris, Cobham Semiconductor Solutions<br>- Cristina Plettner, Airbus D&S<br>- Christian Chatry, TRAD |
| Publicity                   | - Mia Johansson, Cobham Gaisler  |

### CONTACT

conference@gaisler.com | www.radeecs2018.org





The deadline for  
submitting papers is  
Friday, April 20, 2018



### 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
- 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

- Testing Techniques, Guidelines and Hardness Assurance Methodology
- Hardness Assurance - Commercial Of The Shelf
- Hardness Assurance at System Level
- Unique Radiation Exposure Facilities or Novel Instrumentation Methods
- Dosimetry

### Emerging Concepts for Space Systems

- Emerging technologies
- Cubesat
- Constellations
- Alternative concepts for Radiation Hardness Assurance

## PROCEDURE FOR SUBMITTING SUMMARIES

Authors must conform to the following requirements:

1. Prepare a single Adobe Acrobat file consisting of an informative two to four page summary describing results appropriate for 12-minute oral or a poster presentation. 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. The use of the IEEE Transactions on Nuclear Science standard two-column format is also allowed.
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.radecs2018.org](http://www.radecs2018.org). 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. The final category of all papers will be determined by the Technical Program Committee, which is responsible for selecting final papers from initial submissions.

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 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 to all papers submitted to the IEEE Transactions on Nuclear Science. Further information will be sent to prospective authors upon acceptance of their RADECS summary.



The deadline for submitting papers is Friday, April 20, 2018  
[conference@gaisler.com](mailto:conference@gaisler.com) | [www.radecs2018.org](http://www.radecs2018.org)