Call for Papers

Special Issue of the IEEE Transactions on Nuclear Science on
Modeling and Simulation of Radiation Effects

Scheduled for publication: August 2015
Deadline for submission: December 31, 2014 (extended deadline)

Over the last 30 years, tremendous progress has been made in the development of computer-assisted modeling of radiation effects on devices and integrated circuits. For this special issue, we invite manuscripts that explore issues associated with the development and validation of predictive models of radiation effects in electronic and photonic circuits, devices, and materials. We also invite manuscripts that evaluate best practices for the use of environmental and device/IC models to accurately forecast error rates in the space environment. A few guiding principles of the editorial selection of manuscripts proposed to this issue include:

1. Authors should not submit papers they would normally be sending to NSREC or RADECS—we ask that authors focus on the special issues associated with, and/or new capabilities enabled by modeling and simulation (including validation) in these papers in a different way than we normally see for regular TNS papers. In the typical paper published in one of our “Conference” special issues, the focus is on new results, with generally only limited information about modeling and simulation issues/new capabilities. In these papers, we are looking for more focus on significant issues and new capabilities associated with the modeling/simulation process, with illustrative results that can be taken from past (suitably referenced) or present work.

2. Submitted papers should not duplicate or significantly recapitulate the content of any other single manuscript published in or submitted to another journal or conference proceedings. However, manuscripts that briefly review and extend previous work may be appropriate for this issue. Authors are encouraged to discuss via email their proposed topic with one of the associate editors for the IEEE Transactions on Nuclear Science (listed below).

3. Contributed papers should be 8 pages or fewer in length; invited papers may be up to 15 pages long – in either case, longer submissions must be approved by one of the associate editors of the IEEE Transactions on Nuclear Science.


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