

Special Issue

Single-Event Effects: Modeling, Prediction, Testing and Radiation Hardening

Message from the Guest Editors

SEEs will be explored across a wide range of applications and technology platforms, from traditional space systems to emerging ground-level environments, like autonomous vehicles, high-performance computing, medical devices, and particle accelerators. Additionally, this Special Issue will highlight new approaches in alternative SEE testing methodologies—using tools like lasers and high-energy heavy ions—and discuss the challenges in the radiation monitoring and dosimetry needs involved in ensuring accurate SEE characterization and rate prediction. The topics of interest include, but are not limited to, the following:

- Modeling and prediction of single-event effects;
- Experimental characterization of single-event effects;
- Testing methodologies;
- Radiation-hardening-by-design (RHBD) techniques;
- Radiation-hardening-by-process (RHBP) techniques;
- Single-event effects in disruptive technologies like quantum computing, silicon photonics, and AI-driven applications.

Guest Editors

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About the Journal

Message from the Editor-in-Chief

Electronics is a multidisciplinary journal designed to appeal to a diverse audience of research scientists, practitioners, and developers in academia and industry. The journal is devoted to fast publication of latest technological breakthroughs, cutting-edge developments, and timely reviews of current and emerging technologies related to the broad field of electronics. Experimental and theoretical results are published as regular peer-reviewed articles or as articles within Special Issues guest-edited by leading experts in selected topics of interest.

Editor-in-Chief

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