

Call for Papers
IEEE Photonics Journal
Special Issue on Numerical Simulation of Optoelectronic Devices

Guest Editors

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Scope and Topics

The purpose of this Special Issue is to collect expanded versions of papers presented at the 2026 International Conference on Numerical Simulation of Optoelectronic Devices (NUSOD 2026), held in Cork, Ireland. The Special Issue is also **open to original manuscripts** addressing topics within the scope of the conference that were not presented at NUSOD 2026.

This Special Issue welcomes contributions on **recent advances in the modeling and simulation** of semiconductor lasers, including edge-emitting lasers, VCSELs, VECSELs, and PCSELs; light-emitting diodes; optical modulators; optical amplifiers; photodetectors; solar cells; photonic and optoelectronic devices and circuits; optoelectronic materials; active and passive photonic integrated circuits, including silicon and heterogeneous photonic platforms; nonlinear and nanophotonic devices; quantum optoelectronic and quantum photonic devices; and optical fibers.

Contributions addressing advanced numerical methods, multiphysics and multiscale modeling, optimization and inverse design, inverse problems and reconstruction techniques, machine-learning-assisted simulation and data analysis, and the experimental validation of numerical models against experimental data are also encouraged. Contributions promoting open science in optoelectronic and photonic modeling and simulation, including the open sharing of software, data, models, benchmarks, and reproducible computational workflows, are particularly welcome.

Submissions highlighting new and emerging research areas are particularly encouraged, as are contributions proposing novel solutions to practical problems in optoelectronics and photonics.

Submission Guidelines

Submissions will be reviewed in accordance with the normal procedures of the Journal, and papers must be formatted according to the Information for Authors found at:

<https://ieeephotonics.org/publications/photronics-journal/>

- Select the paper type **“Special Issue on Numerical Simulation of Optoelectronic Devices.”**
- Select technical topic **“06 – Focus Issue.”**

Important Dates

Open for Submissions:	September 1, 2026
Submission Deadline:	January 16, 2027
Tentative Publication:	Spring 2027

EARLY ACCESS: DOI-citable articles will be published online after acceptance upon submission of final files and rights selection – sometimes well in advance of issue publication.

For further information, contact the PJ Editorial Office:

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