

Call For Papers

Special Section: Frontiers of Photonic Integration and Packaging

IEEE Transactions on Components, Packaging and Manufacturing Technology

The IEEE Transactions on Components, Packaging, and Manufacturing Technology (T-CPMT) is a flagship journal focused on advancing the knowledge and dissemination of research on semiconductor packaging technologies.

T-CPMT is pleased announce a Call for Papers for a Special Section on **Frontiers of Photonic Integration and Packaging** for communications, computing, AI/ML, sensing and quantum applications.

Papers describing original research addressing cutting edge developments in package architecture, design, novel materials integration, and assembly technologies, are solicited for this Special Section. Topics include, but not limited to, the following:

1. **Electronic – Photonic Co-Integration:** Heterogeneous, hybrid, III-V, and wafer-scale integration; Micro-transfer printing; Photonics interposers; Glass packaging
2. **Photonic Subsystems:** Co-packaged and near-packaged optics; Chiplets; Electronic-photonic co-design
3. **Laser Packaging:** High power laser packaging; Hybrid laser integration; Quantum cascade lasers; Micro-LED packaging; VCSEL packaging
4. **Photonic Integrated Circuit (PIC) Packaging:** Fiber to PIC coupling; Waveguide to PIC coupling; Edge and surface coupling; Novel optical connectors (Detachable, reflow compatible, adhesive-less, ultralow loss)
5. **Quantum Photonics Packaging:** Quantum PIC interconnect, interposer, and sensor packaging; Ultra-low temperature optical packaging and subsystems
6. **Photonic Processes and Materials:** Optical wirebonding; 3D printed micro-optics; Mode converters; Optical PCBs; Optical redistribution; Polymer waveguides; Novel optical adhesives
7. **Photonics Packaging for Extreme Environments:** Space; Immersion; Cryogenic
8. **Photonics Packaging in Advanced Photonic Applications:** LiDAR; Wearable technologies; Neuromorphic networks; Network on Chip; Gas and liquid Sensing

Authors should select "Special Section on Photonics Packaging" when submitting their papers and noting the same in their cover letter to ensure that the manuscript is assigned correctly.

The timeline for this Special Section is:

Deadline for submission of manuscripts: July 8, 2024

Final manuscripts due: September 30, 2024

Publication (target): November 2024

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