Special Issue

Directly-Modulated Lasers

Message from the Guest Editors

With the recent rise of data traffic, owing to big-data and AI applications, more emphasis is placed on photonics technologies due to their superior bandwidth and energy-efficiency capabilities. In this Special Issue, we welcome submissions related to all aspects surrounding DMLs, from device design to transmission and systems. Particular focus will be given on high-speed operation and energy-efficiency, but complimentary aspects such as high-temperature operation, AI-assisted design, and novel applications of DMLs are also strongly encouraged. Topics of interest include, but are not limited to, the following areas:

- DML design for bandwidth enhancement;
- Low-operating-power and novel DML structures;
- High-temperature operation;
- Novel materials and fabrication methods;
- Machine-learning-assisted DML design;
- WDM and SDM transmitters based on DMLs;
- DML-specific digital and analogue signal processing;
- Novel applications of DMLs in AI and computing;
- DMLs for Satellite Communications and emerging applications;
- DMLs role in neuromorphic processing and reservoir computing.

Guest Editors

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Deadline for manuscript submissions

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Message from the Editor-in-Chief

You are invited to contribute a research article or a comprehensive review for consideration and publication in *Photonics* (ISSN 2304-6732). *Photonics* is an online open access journal covering both the fundamental and applications of optics and photonics. *Photonics* strives to provide an avenue to allow authors to disseminate their scientific findings—both theoretical/ simulations and experimental works—in highly accessible peer-reviewed journal publications. The manuscript in *Photonics* will be handled with quick turnaround production processing time. We welcome authors to submit their manuscripts for publications in *Photonics*. Our goal in *Photonics* is to enable fast dissemination of high impact works to the scientific community.

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