

# Guest Editorial

## JQE Special Issue Dedicated to the 24th European Conference on Integrated Optics

**T**HIS Special Issue is associated with the European Conference on Integrated Optics (ECIO), held on April 19–21, 2023, in Enschede, The Netherlands. This conference was the 24th in a series that started in London in 1981. After the 2022 edition held in Milan, this new edition of the conference was hosted at the University of Twente with about 210 participants. The scientific sessions of the conference were opened with a plenary session by Prof. Miloš Popović of Boston University, USA, who presented the progress in electronic-photonic integrated circuits and systems.

The conference program included two keynote speakers, six invited speakers, four top-scoring talks, 47 regular talks, 46 poster presentations, and 20 exhibitors. The conference covered leading-edge topics in integrated photonic technologies and platforms, novel physical insights and materials, devices and integrated circuits, and applications of photonic integrated circuits.

As in the 2022 edition, the speakers of the conference were allowed to submit their work for publication in this Special Issue. The published papers by van der Zon et al. [A1], Porzi et al. [A2], Vikram et al. [A3], and Zheng et al. [A4] cover different topics and applications from demonstrations of integrated comb source spectral processor and optical phased arrays to parallel sensing.

The Guest Editors are thankful to the Editor-in-Chief Prof. Hon Ki Tsang, for providing the opportunity to dedicate this Special Issue to ECIO 2023, to all authors and reviewers, and the IEEE Photonics Society staff for supporting and managing the entire workflow.

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### APPENDIX: RELATED ARTICLES

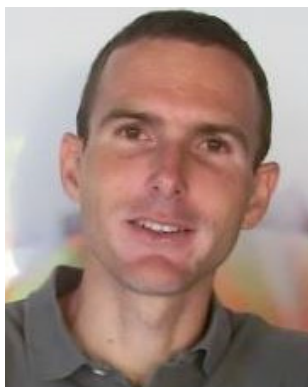
- [A1] L. R. van der Zon, L. A. Bru, P. Muñoz, and D. Pastor, "The design and characterization in amplitude and phase of a compact 8-channel loop-back AWG based integrated comb processor," *IEEE J. Quantum Electron.*, vol. 60, no. 6, Dec. 2024, Art. no. 0600208, doi: [10.1109/JQE.2024.3397644](https://doi.org/10.1109/JQE.2024.3397644).
- [A2] C. Porzi et al., "Spectrally pure W-band RF carrier generation with packaged silicon photonics circuit," *IEEE J. Quantum Electron.*, vol. 60, no. 6, Dec. 2024, Art. no. 0600309, doi: [10.1109/JQE.2024.3380552](https://doi.org/10.1109/JQE.2024.3380552).
- [A3] B. S. Vikram, M. Gagino, A. Millan-Mejia, L. Augustin, K. A. Williams, and V. D. Calzadilla, "Demonstration of inherently low differential phase noise across C-band in InP integrated, amplifying optical phased arrays," *IEEE J. Quantum Electron.*, vol. 60, no. 6, Dec. 2024, Art. no. 0600407, doi: [10.1109/JQE.2024.3404009](https://doi.org/10.1109/JQE.2024.3404009).
- [A4] Z. Zheng, W. A. P. M. Hendriks, S. M. García-Blanco, and L. Chang, "Parallel sensing with multiple microrings on a single bus waveguide," *IEEE J. Quantum Electron.*, vol. 60, no. 3, Jun. 2024, Art. no. 7500105, doi: [10.1109/JQE.2024.3386101](https://doi.org/10.1109/JQE.2024.3386101).



**Sonia M. García-Blanco** received the Ph.D. degree from the University of Glasgow, Glasgow, U.K., in 2003. In 2010, she joined the University of Twente as a Tenure Track Assistant Professor. She is currently a Full Professor and the Chair of the Integrated Optical Systems Group, MESA+ Institute of Nanotechnology, University of Twente, Enschede, The Netherlands. After a post-doctoral position with the University of Toronto, she joined the Institut National d'Optique, Québec, QC, Canada, as a Staff Member working in infrared microbolometer detectors and wafer-level integration technologies. Her research interests include the development of new waveguide materials, monolithic and heterogeneous integration technologies to add novel functionalities to passive photonic platforms, and novel devices that permit exploiting physical phenomena difficult to achieve in conventional non-integrated devices with an emphasis on telecommunications and optical sensing applications.



**Lantian Chang** received the M.Sc. and Ph.D. degrees from the University of Twente, Enschede, The Netherlands, in 2011 and 2016, respectively. From 2016 to 2017, he was a Post-Doctoral Researcher with the Medical Cell Biophysics Group, University of Twente. Then, he followed another post-doctoral position at the Optical Sciences Group, University of Twente. He is currently an Assistant Professor with the Integrated Optical Systems Group, University of Twente. His research interests include the development of photonic waveguide technologies and 3D-printed micro-optical elements. The applications include but are not limited to optical coherence tomography, Raman microscope, laser bio-sensing, and photonic chip alignment technology. He has also been part of the Organization Committee of ECIO, IEEE Benelux, and other international conferences.



**Pablo Sanchis** (Senior Member, IEEE) received the Ph.D. degree from the Universitat Politècnica de València in 2005. Since 2016, he has been a Full Professor with the Universitat Politècnica de València. His research career has been developed at the Nanophotonics Technology Center where he leads the research group. He has authored more than 95 articles in peer-reviewed international journals and more than 170 papers in international conferences. He holds several patents. His research interests are related to integrated photonics. He has also been part of the Organization Committee of ECIO, GFP, ECOC, and other international conferences.