Optical Components and Materials XIX (OE103)

Conference Chairs: Shibin Jiang, AdValue Photonics, Inc. (United States); Michel J. F. Digonnet, Stanford Univ. (United States)

Program Committee: Jean-Luc Adam, Univ. de Rennes 1 (France); Joel Bagwell, Brandywine Photonics (United States); Rolindes Balda, Univ. del País Vasco (Spain); Robert P. Dahlgren, NASA Ames Research Ctr. (United States); Angel Flores, Air Force Research Lab. (United States); Jesse A. Frantz, U.S. Naval Research Lab. (United States); Parminder Ghuman, NASA Earth Science Technology Office (United States); Leonid B. Glebov, CREOL, The College of Optics and Photonics, Univ. of Central Florida (United States); Seppo K. Honkanen, Univ. of Eastern Finland (Finland), Microsoft HoloLens (Finland); Jacques Lucas, Univ. de Rennes 1 (France); Yasutake Ohishi, Toyota Technological Institute (Japan); Aydogan Ozcan, UCLA Samueli School of Engineering (United States); Giancarlo C. Righini, Istituto di Fisica Applicata “Nello Carrara” (Italy); Setsuhisa Tanabe, Kyoto Univ. (Japan); John M. Zavada, Polytechnic Institute of New York Univ. (United States); Jun Zhang, CCDC–Army Research Lab. (United States)

Active and passive optical components are playing key roles in current optical communication networks, optical sensors, and medical optical devices. Extensive research continues to be carried out to improve their performance and functionality, and to reduce their size and cost. Areas of research that are particularly active include high-power fiber lasers, switches, filters, ultra-short-pulse fiber lasers, as well as material research in rare-earth-doped glasses, semiconductors, and nano-particles for enabling innovative photonic devices. There is also significant activity in developing components in lightwave circuits, which will ultimately reduce manufacturing cost while integrating multiple active and passive functions on a single chip.

The purpose of this conference is to bring together researchers and engineers from academia and industry to discuss recent developments in these rapidly advancing fields. Suggested topics include:

- rare-earth-doped devices and materials
- rare-earth-doped or metal-doped glasses, crystals, polymers, semiconductors, hybrid materials, and fibers
- spectroscopy of rare-earth ions and other laser species
- graphene and carbon nanotubes
- new materials for mode-locking
- nanoparticles
- quantum dots
- fiber amplifiers design and fabrication
- waveguide lasers and amplifiers
- UV to far-infrared fiber lasers
- cladding-pumped lasers and amplifiers
- Raman laser and amplifiers
- Brillouin lasers
- broadband fiber sources
- semiconductor-based lasers and amplifiers
- optical switches, modulators, and other devices
- optical nonlinearities in fibers and waveguides
- lithium niobate bulk-optic and waveguide devices
- thermal and UV poling of silica and other glasses
- electro-optic poled sol-gels
- progress in lithium niobate electro-optic modulators
- nonlinear frequency converters
- photonic-bandgap fibers and devices
- plasmonic devices and technologies
- sub-wavelength optical elements
- photosensitivity in fibers and planar waveguides
- photosensitivity in glasses and polymers
- filters, reflectors, and other grating-based devices
- fiber and waveguide Bragg gratings
- long-period fiber gratings
- modeling glass structure and defects arising from UV irradiation
- novel passive and active components for dense WDM
- tunable filters and add-drop filters
- device packaging, testing, and reliability
- devices for optical interconnect
- detectors
- SWIR photodetectors
- single-photon detectors
- silicon-based photodetectors
- low-noise detection architectures
- unique detector materials and special spectral regions
- progress in MEMS-based detectors
- detectors with gain.

www.spie.org/oe103call
#PhotonicsWest
Present your research at SPIE Photonics West

Below are abstract submission instructions, the accompanying submission agreement, conference presentation guidelines, and guidelines for publishing in the Proceedings of SPIE on the SPIE Digital Library. Submissions subject to chair approval.

Important dates

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abstract submission deadline</td>
<td>11 August 2021</td>
</tr>
<tr>
<td>Author notification</td>
<td>11 October 2021</td>
</tr>
<tr>
<td>Submission system opens for presentations and manuscripts*</td>
<td>29 November 2021</td>
</tr>
<tr>
<td>Manuscript due date</td>
<td>29 December 2021</td>
</tr>
<tr>
<td>Oral presentation videos due</td>
<td>29 December 2021</td>
</tr>
<tr>
<td>Poster PDF and preview videos due</td>
<td>29 December 2021</td>
</tr>
<tr>
<td>Oral presentation slide deadline</td>
<td>20 January 2022</td>
</tr>
</tbody>
</table>

*Authors must register prior to uploading.

What you will need to submit

- Title
- Author(s) information
- 250-word abstract for technical review
- 100-word summary for the program
- Keywords used in search for your paper (optional)
- Check the individual conference Call for Papers for additional requirements (for example, some conferences require 2- to 3-page extended summary for technical review, or have instructions for award competitions)

Note: Only original material should be submitted. Commercial papers, papers with no new research/development content, and papers with proprietary restrictions will not be accepted for presentation.

How to submit your abstract

- Visit the conference page: www.spie.org/oe103call
- You may submit more than one abstract but submit each abstract only once.
- Click the “Submit An Abstract” button on the conference page.
- Sign in to your SPIE account or create an account if you do not already have one.
- Follow the steps in the submission wizard until the submission process is completed.
- If your submission is related to an application track below, indicate the appropriate track when prompted during the submission process.

Application track

- Brain: Papers that describe the development of innovative technologies that will increase our understanding of brain function.
- Translational Research: Papers that showcase the latest photonics technologies, tools, and techniques with high potential to impact healthcare.
- 3D Printing: Papers that showcase innovative ways to apply this multidimensional/multidisciplinary technology.
- COVID-19 Research: Papers that illustrate the creativity and breadth of the optics and photonics community’s response to the COVID-19 pandemic.

Submission agreement

All presenting authors, including keynote, invited, oral, and poster presenters, agree to the following conditions by submitting an abstract:

- Register and pay the author registration fee.
- Oral Presenters: Submit a presentation video by the advertised due date, or agree to the presentation capture of your presentation on site, for online conference viewing during the event and publication in the Proceedings of SPIE on the SPIE Digital Library.
- Poster Presenters: Submit a Poster PDF and optional preview video by the advertised due date, for online conference viewing during the event and publication in the Proceedings of SPIE on the SPIE Digital Library.
- Submit a 4-page-minimum manuscript by the advertised due date, for online conference viewing during the event and publication in the Proceedings of SPIE on the SPIE Digital Library.
- Obtain funding for registration fees, travel, and accommodations, independent of SPIE, through their sponsoring organizations.
- Ensure that all clearances, including government and company clearance, have been obtained to present and publish. If you are a DoD contractor in the USA, allow at least 60 days for clearance.
- Attend the meeting.
- Present at the scheduled time.

Review and program placement

- To ensure a high-quality conference, all submissions will be assessed by the Conference Chair/Editor for technical merit and suitability of content.
- Conference Chairs/Editors reserve the right to reject for presentation any paper that does not meet content or presentation expectations.
- Final placement in an oral or poster session is subject to Chair discretion.

Publication of Proceedings in the SPIE Digital Library

- SPIE will publish all presentations for viewing during the conference, as well as permanently archive all presentations in the conference proceedings on the SPIE Digital Library.
- SPIE retains rights to distribute and market the official SPIE recording of the presentation, presentation video, and/or poster.
- Most SPIE conferences follow an onsite publication model, meaning that manuscripts received by the advertised due date will be published for online viewing during the event, as well as archived in the SPIE Digital Library.
- A select few of SPIE conferences may elect to follow a Post-Meeting model of publication in order to conduct a more through review of manuscripts. In this model, manuscripts will be published 2-4 weeks after the event in the SPIE Digital Library, and may not be published for online viewing during the event.
- Authors must be authorized to transfer copyright of the manuscript to SPIE, or provide a suitable publication license. Authors retain the right to prepare derivative publications based on the paper.
- Conference Chairs/Editors may require manuscript revision before approving publication and reserve the right to reject for publication any paper that does not meet acceptable standards for a scientific publication.
- Conference Chair/Editor decisions on whether to allow publication of a manuscript are final.
- Only papers, presentations, and posters presented at the conference and received according to publication guidelines and due dates will be published in the conference Proceedings of SPIE on the SPIE Digital Library.
- SPIE partners with relevant scientific databases to enable researchers to find the papers in the Proceedings of SPIE easily. The databases that abstract and index these papers include Astrophysical Data System (ADS), EI Compendex, CrossRef, Google Scholar, Inspec, Scopus, and Web of Science.
- More publication information available on the SPIE Digital Library

*SPIE partners with relevant scientific databases to enable researchers to find the papers in the Proceedings of SPIE easily. The databases that abstract and index these papers include Inspec, Scopus, and Web of Science.**