Next-Generation Optical Communication: Components, Sub-Systems, and Systems XII (OE803)

Conference Chairs: Guifang Li, CREOL, The College of Optics and Photonics, Univ. of Central Florida (United States); Kazuhide Nakajima, NTT - Tsukuba R&D Ctr. (Japan)

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This conference provides a forum to present the latest advances in technology and product developments in next-generation optical communication including coherent, space- and mode-division multiplexed optical transmission systems. The conference program encompasses components and subsystems related to next-generation optical communication technology as well as coherent, ultra-wide band, space- and mode-division multiplexed optical communication systems. Early-stage concepts and controversial solutions are also welcome and encouraged.

We particularly invite students to submit their thesis work to this conference. Students who are first authors will be eligible for the Optical Communications Best Student Paper Awards.

Topics for the conference include but are not limited to:
• advanced components for coherent transmitters and receivers
• photonic and optoelectronic integration
• subsystems including DSP algorithms, AI/ML
• coherent and ultra-wide band transport systems
• coherent and ultra-wide band transmission technology for access and short reach
• free-space optical communication
• under water optical communication
• electrical and optical signal processing
• analog and microwave photonics
• optical switching and SDM networking
• components and subsystems for space-division multiplexing
• optical fiber and components for next generation data center/submarine network
• new optical fiber or component
• distributed sensing on terrestrial and subsea networks

OPTICAL COMMUNICATIONS BEST PAPER AWARDS

We are pleased to announce that there will be Best Paper Awards in Optical Communications, sponsored by Corning and NTT Electronics. These awards will recognize the outstanding work of students and professionals who present the most notable recent results with broad impact in the area of optical communications. Qualifying papers will be evaluated by the awards committee. Manuscripts will be judged based on technical merit, impact, and clarity. The winners will be announced immediately following the Optical Communications Joint Keynote Session, and the presenting authors will be awarded a certificate and cash prize.

IMPORTANT: Manuscripts for this award are due 23 December 2022.

To be eligible for the Best Student Paper Award, you must:
• be a student without a doctoral degree (undergraduate, graduate, or PhD student)
• be listed as an author on an accepted paper within conferences OE801, OE802, or OE803
• have conducted the majority of the work to be presented
• submit your manuscript online by 23 December 2022
• present your paper as scheduled
• be present at the Awards Ceremony.

To be eligible for the Best Technical Paper Award, you must:
• be a post-doc or early career professional
• be listed as an author on an accepted paper within conferences OE801, OE802, or OE803
• have conducted the majority of the work to be presented
• submit your manuscript online by 23 December 2022
• present your paper as scheduled
• be present at the Awards Ceremony.

How to Apply: After your Manuscript is submitted online (by 23 December 2022), send an email to nasfine@stny.rr.com by Wednesday 28 December 2022, stating your desire to be considered, and for which award you qualify.
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

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<tr>
<td>Abstracts due</td>
<td>20 July 2022</td>
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<tr>
<td>Registration</td>
<td>October 2022</td>
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<td>Authors notified and program posts online</td>
<td>10 October 2022</td>
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<tr>
<td>Submission system opens for manuscripts and poster PDFs*</td>
<td>28 November 2022</td>
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<tr>
<td>Post-deadline abstracts due: Submit via conference listings</td>
<td>12 December 2022</td>
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<td>Poster PDFs due for spie.org preview and publication</td>
<td>4 January 2023</td>
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<td>Manuscripts due</td>
<td>11 January 2023</td>
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<td>Advance upload deadline for oral presentation slides**</td>
<td>26 January 2023</td>
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*After this date slides must be uploaded onsite at Speaker Check-in

**Advance upload deadline for oral presentation slides**

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 2-3-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/pc803call
- 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
- AI/ML: Papers that showcase the use of artificial intelligence, machine learning, and deep learning to create and implement intelligent systems
- Net Zero: Papers that feature solutions to achieving net zero energy consumption, waste, and carbon emissions within optics and photonics

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: recording and publication of your onsite presentation (slides synched with voice) for publication in the Proceedings of SPIE in the SPIE Digital Library
- Poster presenters: submit a poster PDF and optional preview video, by the advertised due dates, for publication in the Proceedings of SPIE in the SPIE Digital Library; poster PDFs may also be published and viewable in the spie.org program during and immediately after the event
- Submit 2-page-minimum manuscript, by the advertised due date, for publication in the Proceedings of SPIE in the SPIE Digital Library
- 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

Increase your professional visibility and publish in the world’s largest collection of optics and photonics research. Your peers access approximately 18 million papers, presentations, and posters from the SPIE Digital Library each year.

- Only manuscripts, presentations, and posters presented at the conference and received according to publication guidelines and due dates will be published in the Proceedings of SPIE in the SPIE Digital Library
- Manuscripts, presentations, and posters will be officially published after the event in the SPIE Digital Library
- Conference chairs/editors may require revision before approving publication and reserve the right to reject for publication any manuscript or presentation that does not meet acceptable standards for a scientific publication
- Conference chair/editor decision to accept or reject a manuscript, presentation, or poster for publication is final
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Contact information

QUESTIONS?

Contact the coordinator listed in your spie.org account.

For questions about your presentation, submitting an abstract post-deadline, or the meeting, contact your conference program coordinator.

For questions about publication or the SPIE Digital Library, contact your proceedings coordinator.

SPIE WILL PUBLISH YOUR RESEARCH GLOBALLY

www.SPIEDigitalLibrary.org

Your work will live far beyond the conference room—all proceedings from this meeting will be published in the SPIE Digital Library. Promote yourself, your ideas, and your organization to millions of key researchers from around the world through this web-based repository of the latest technical information.

SPOTLIGHTED TRACKS

- Astro: Papers that advance the capabilities of mass spectrometry to space-based systems
- AI/ML: Papers that showcase the use of artificial intelligence, machine learning, and deep learning to create and implement intelligent systems
- 3D Printing: Papers that showcase innovative ways to apply this multidimensional/multidisciplinary technology
- Net Zero: Papers that feature solutions to achieving net zero energy consumption, waste, and carbon emissions within optics and photonics

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