Nonlinear Frequency Generation and Conversion: Materials and Devices XXI (LA201)

Conference Chairs: Peter G. Schunemann, BAE Systems (United States); Valentin Petrov, Max-Born-Institut für Nichtlineare Optik und Kurzzeitspektroskopie (Germany)

Program Committee: Carlota Canalias, Tailored Photons AB (Sweden); Shekhar Guha, Air Force Research Lab. (United States); Christelle Kieleck, Fraunhofer-Institut für Optronik, Systemtechnik und Bildauswertung IOSB (Germany); Kentaro Miyata, RIKEN (Japan); Rita D. Peterson, Air Force Research Lab. (United States); Christopher R. Phillips, ETH Zurich (Switzerland); Kenneth L. Schepler, CREOL, The College of Optics and Photonics, Univ. of Central Florida (United States); Chaitanya Kumar Suddapalli, ICFO - Institut de Cièencies Fotòniques (Spain); Konstantin L. Vodopyanov, CREOL, The College of Optics and Photonics, Univ. of Central Florida (United States); Vladislav V. Yakovlev, Texas A&M Univ. (United States); Haohai Yu, Shandong Univ. (China)

The purpose of this conference is to provide a forum for discussing advances in nonlinear optics. Areas of emphasis include new devices and techniques for improved nonlinear frequency conversion, new effects and demonstrations based on nonlinear optics, as well as novel nonlinear optical materials.

Topics include:

**DEVICES AND TECHNIQUES**
- nonlinear processes in bulk crystals, fibers, waveguides, and thin films
- parametric frequency up and down conversion
- sources based on parametric processes
- sum and difference frequency generation, 2nd, 3rd, 4th, and 5th harmonic generation
- high harmonic generation
- optical parametric chirped pulse amplifiers
- frequency combs and spectroscopy
- supercontinuum generation
- stimulated Raman and Brillouin scattering
- four-wave mixing and other 3rd and higher-order nonlinear processes
- THz generation based on nonlinear conversion, THz spectroscopy, and imaging
- epsilon-near-zero materials
- nonlinear plasmonics

**NONLINEAR MATERIALS**
- bulk inorganic and organic nonlinear materials
- engineered nonlinear materials including quasi-phase-matched oxides and semiconductors
- nanostructures, photonic bandgap structures
- nonlinear fibers, waveguides and thin films
- new measurements and measurement techniques of nonlinear optical and other material properties relevant to nonlinear frequency conversion.

www.spie.org/la201call
#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

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<tr>
<td>Abstract submission deadline</td>
<td>11 August 2021</td>
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<td>Author notification</td>
<td>11 October 2021</td>
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<td>Manuscript due date</td>
<td>29 November 2021</td>
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<td>Oral presentation videos due</td>
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<td>Poster PDF and preview videos due</td>
<td>29 December 2021</td>
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<td>Oral presentation slide deadline</td>
<td>20 January 2022</td>
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*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/la201call](http://www.spie.org/la201call)
- **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.**
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- **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 thorough 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.
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- **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.**
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