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22-27 January 2022
The Moscone Center
San Francisco, CA, USA

Submit abstracts by
11 August 2021



Free-Space Laser Communications XXXIV (LA402)

Conference Chairs: **Hamid Hemmati**, ViaSat, Inc. (United States); **Bryan S. Robinson**, MIT Lincoln Lab. (United States)

Program Committee: **Abhijit Biswas**, Jet Propulsion Lab. (United States); **Don M. Boroson**, MIT Lincoln Lab. (United States); **Kerri L. Cahoy**, Massachusetts Institute of Technology (United States); **Donald M. Cornwell Jr.**, Amazon.com, Inc. (United States); **Baris I. Erkmen**, X Development LLC (United States); **Frank F. Heine**, Tesat-Spacecom GmbH & Co. KG (Germany); **William S. Rabinovich**, U.S. Naval Research Lab. (United States); **Julie Smith**, Air Force Research Lab. (United States); **Zoran Sodnik**, European Space Research and Technology Ctr. (Netherlands); **Linda M. Thomas**, U.S. Naval Research Lab. (United States); **Morio Toyoshima**, National Institute of Information and Communications Technology (Japan)

This conference will provide a forum for all professionals involved in technologies related to free-space laser communications, and broadband optical communications. The conference will cover subjects related to the latest research and technology advances, and provide an overview useful to lasercom specialists, technology managers, and communication engineers. Papers are encouraged on ongoing laser communication programs, free-space laser communication system requirements, technology and subsystem advancements, and in-depth analysis of present status and future trends. Original papers are solicited on, but are not limited to, the following topics:

FREE-SPACE LASER COMMUNICATION TECHNOLOGIES AND ATMOSPHERIC PROPAGATION

- present and future laser communication systems; space-based systems, airborne links terrestrial/indoor/commercial links
- next-generation lasercom technologies
- modulation and error correction encoding
- pointing, acquisition, and tracking
- atmospheric propagation, transmission effects, and compensation techniques
- transmitters for space, receivers, subsystems, optical and optoelectronic components
- flight qualification, lifetime and reliability
- ground networks supporting lasercom systems; ground terminal technologies; ground-based transmitters, receivers, optics
- beyond-line-of-sight communications
- quantum communication and cryptography
- optics for electronic module interconnects
- global communications systems that make use of wireless-terrestrial, air, and space optical connections
- free-space-laser-based gravitational wave sensing systems.

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

Abstract submission deadline	11 August 2021
Author notification	11 October 2021
Submission system opens for presentations and manuscripts*	29 November 2021
Manuscript due date	29 December 2021
Oral presentation videos due	29 December 2021
Poster PDF and preview videos due	29 December 2021
Oral presentation slide deadline	20 January 2022

*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/la402call
- 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 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.
- 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](http://www.spiedigitallibrary.org)

ABSTRACT SUBMISSION GUIDELINES

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