

**SPIE. PHOTONICS  
WEST  
BIOS**
**22-27 January 2022**  
The Moscone Center  
San Francisco, CA, USA

 Submit abstracts by  
**11 August 2021**


## Polarized light and Optical Angular Momentum for biomedical diagnostics 2022 (BO406)

*Conference Chairs:* **Jessica C. Ramella-Roman**, Florida International Univ. (United States); **Hui Ma**, Tsinghua Univ. Shenzhen International Graduate School (China); **Tatiana Novikova**, Lab. de Physique des Interfaces et des Couches Minces (France)

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Recent progress in using polarized light and Optical Angular Momentum for biomedical diagnostics at both tissue and cellular levels is attracting academic and industrial interest. The development and clinical implementation of new techniques, as well as translation of approaches developed by other scientific communities working in the fields of ellipsometry, astrophysics, photoelastography, etc. to the medical field can broaden the diagnostics toolkit of healthcare professionals.

This conference targets new methodologies and findings of polarized light and Optical Angular Momentum for in vitro, pre-clinical and clinical applications for biomedical diagnostics. A special focus of the conference is on the translation of polarimetric modalities to clinical settings. Scientific papers are solicited related to advanced polarimetric instrumentation, modeling, and applications of polarized light that push beyond the current state of sensitivity, specificity and applicability of different biomedical fields. These include:

### PROPERTIES OF TISSUES

- Tissue scattering and depolarization
- Tissue birefringence, diattenuation, Poincare sphere
- Imaging of polarization properties
- Validation of polarimetric approaches
- Optical Angular Momentum and tissue interaction.

### NOVEL POLARIMETRIC TECHNIQUES AND METHODS

- Mueller-Stokes polarimetry,
- Polarized light microscopy
- Polarized light endoscopy
- Fluorescence anisotropy
- Circular dichroism
- Optical Angular Momentum.

### BIOMEDICAL APPLICATIONS OF POLARIZED LIGHT

- Reproductive medicine
- Ophthalmology
- Neurosurgery
- Gastroenterology
- Cardiac
- Dermatology.

# 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/bo406call](http://www.spie.org/bo406call)
- 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.
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# ABSTRACT SUBMISSION GUIDELINES

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