



Neurophotonics II (PE116)

Conference Chairs: **Francesco Saverio Pavone**, LENS - Lab. Europeo di Spettroscopia Non-Lineari (Italy); **Laurent Cognet**, Univ. de Bordeaux (France)

Programme Committee: **Christopher W. Dunsby**, Imperial College London (United Kingdom); **Maria Angela Franceschini**, Athinoula A. Martinos Ctr. for Biomedical Imaging (United States); **Thomas Kuner**, Ruprecht-Karls-Univ. Heidelberg (Germany); **Darcy S. Peterka**, Columbia Univ. (United States); **Shy Shoham**, NYU Langone Health (United States)

This conference focuses on cutting edge research and techniques used to investigate the brain and nervous system.

Multiscale imaging and manipulating the living and intact brain are becoming important topics in neurophotonics. In this context, it's mandatory to provide new strategies for optical measurements of neural function and develop tools such as optogenetics to enables the control of cellular function with light. Also, in terms of imaging, furthermore it's often important to image the samples from nanoscale to whole organism scales, bridging the gap between technologies.

The conference aims to bring together engineers, optical and medical scientists, biologists, chemists, neuroscientists and physicians, bringing together researchers working in all aspects of neurophotonics. It will also serve as a forum to discuss existing and emerging techniques.

Topics include but are not limited to:

- hybrid and multimodal approaches to neuroimaging
- optical hemodynamic imaging and neuro-vascular interactions
- mesoscopic, microscopic, and endoscopic imaging of neural structure and function
- tissue scattering, clearing and de-scattering
- superresolution microscopy and nanoscopy of the nervous system
- novel reporters and actuators, optogenetics, bioluminescence
- data analysis, machine learning, and image processing
- analyzing circuitry, network function, and information processing
- optics and brain disease
- light shaping in the brain, holography
- dissemination and commercialization of BRAIN technologies
- closed loop optical neural interfaces

Present your research at SPIE Photonics Europe

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

Abstracts due	20 October 2021
SPIE sends author notification to contact author	12 January 2022
Registration opens	January 2022
Manuscripts due	9 March 2022

*Authors must register prior to uploading their manuscript.

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/pe16call
- 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.

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 Chairs 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://SPIEDigitalLibrary.org).

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QUESTIONS?

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