SPIE. PHOTONICS EUROPE

Conferences: 7–11 April 2024
Exhibition: 9–10 April 2024
Palais de la Musique et des Congrès
Strasbourg, France

Submit abstracts by
30 November 2023

Nanophotonics X (PE102)

Conference Chairs: **David L. Andrews,** Univ. of East Anglia (United Kingdom); **Angus J. Bain,** Univ. College London (United Kingdom); **Antonio Ambrosio,** Istituto Italiano di Tecnologia (Italy)

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In structures whose optical response is determined by nanoscale features, the character of optical propagation, interaction and measurement commonly involves an interplay of structural and electronic, quantum mechanical and quantum optical features, all concisely conveyed by the term "nanophotonics." This distinctive field continues to exhibit a phenomenal rate of growth at both the research and applications level.

It is the purpose in this conference, the tenth of an established series and a major component of SPIE Photonics Europe, to address the latest developments in the optics, materials and physics-related aspects of this exciting area, emphasizing principles, systems and mechanisms, and identifying current directions in research and development. Reporting the cutting-edge technical advances and applications, the conference will cover a broad range of topics in nanophotonics, including its detailed theoretical foundations, mechanisms, optical techniques, characterization principles, novel fabrication and synthetic methods, calculational and modeling advances, devices, light-matter coupling and a full range of applications in fields as diverse as energy, lighting and displays, health and medicine. Contributed papers are solicited from researchers, practitioners, users and commercial organizations working in these broad areas, especially focusing on the following and related topics:

FABRICATION
- optical nanofabrication and characterization
- additive manufacturing
- surface sculpting
- photolithography
- electron beam lithography
- ion implantation.

DESIGN AND STRUCTURES
- plasmonics and surface nanostructures
- optical antennas and nanoantennas
- quantum confined lasers and laser components
- nano-optical cavities, waveguides, and resonators
- topological materials
- photoresponsive materials
- machine learning and inverse design.

BASIC EFFECTS
- near-field optics and evanescent wave formation
- nanoscale optical transmission, reflection and scattering
- quantum propagation effects
- single-molecule optics and photonics
- nonlinear optics in nanostructures
- strong coupling
- optical vortex formations.

SENSING AND IMAGING
- nanoplasmonic sensors and nanoparticle reporters
- functionalized nanoparticles and optical sensing
- nanomicroscopy and imaging technology
- quantum dots, fluorescence labeling, and imaging
- photon propagation in biological nanostructures.

MANIPULATION
- optical tweezers and spanners
- nanomanipulation with light
- optical lattices and holographic trapping
- structured light interactions.

PHOTO-INDUCED EFFECTS
- control of nanoscale optical and electronic processes
- light harvesting nanomaterials and frequency conversion
- supramolecular engineering of electron and energy transfer
- optically driven molecular motors
- photoactive arrays, materials, and devices.

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ABSTRACT SUBMISSION GUIDELINES

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	30 November 2023
Authors notified and programme posts online	25 January 2024
Registration opens	8 January 2024
Submission system opens for manuscripts and poster videos/PDFs*	5 February 2024
Manuscripts due	20 March 2024

*Contact author or speaker must register prior to uploading

What you will need to submit

- Presentation title
- Author(s) information
- Speaker biography (1000-character max including spaces)
- Abstract for technical review (200-300 words; text only)
- Summary of abstract for display in the programme (50-150 words; text only)
- Keywords used in search for your paper (optional)
- Check the individual conference call for papers for additional requirements (i.e. extended abstract PDF upload for review or 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/pe102call**
- You may submit more than one abstract, but submit each abstract only once
- Submit by clicking 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

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 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 programme during and immediately after the event. Each poster must have a unique presenter; one person may not present more than one poster
- Email messaging for the conference series
- Submit a manuscript by the advertised due date for publication in the Proceedings of SPIE in the SPIE Digital Library
- Obtain funding for registration fees, travel, and accommodations
- Attend the meeting
- Present at the scheduled time

Review and programme 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

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