



## Optics in Health Care and Biomedical Optics XIV (PA111)

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During the last 1.5 decades there have been significant scientific advances and technology developments in diagnosis, treatment and health care using light. Optical methods are generally noninvasive and sensitive to unique tissue contrast (absorption, scattering, birefringence, fluorescence, and nonlinear signal generation etc.) that complements other biomedical diagnostic technologies. Optical-based instruments/devices can be extremely compact and cost effective, suitable for home, clinic and global health care. The field of biomedical photonics is highly multi-disciplinary and has been attracting more and more researchers from physics, chemistry, electrical engineering, biomedical engineering, computer science, nanotechnology and many other disciplines. The past few years have also witnessed the integration of biomedical photonics with other technologies, such as photo-acoustics, optics-molecular and nano-techniques, optics and MRI, optics and PET, and more recently with artificial intelligence. Clinical applications of emerging biomedical photonics technologies span many areas including ophthalmology, dermatology, cardiology, gastroenterology, dentistry, urology, and neurology, etc. The objective of this conference is to provide a technical forum for engineers, scientists, clinicians, and health care industry and government agencies to report, share and learn the latest fundamental, translational, and clinical research and developments in the field of biomedical optics, and promote cross-disciplinary, institutional, and international collaborations. The topics of this conference are broad and will include but not limited to the following:

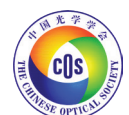
- light-tissue/cell interactions: fundamental theories and new methodologies for diagnosis and therapy
- photon therapeutics: photo dynamic therapy, photobiomodulation therapy, laser surgery, other photo therapy and applications
- spectroscopy: refluorescence, Raman, hyperspectral imaging and biomedical applications
- novel microscopy: nonlinear, super-resolution, light-sheet, endoscopy microscopy, LSCI imaging and biomedical applications
- translational optical techniques for basic research and clinical medicine: neurophotonics, diagnosis devices, implantable devices, point-of-care devices
- multimodal biomedical imaging: photo-acoustic imaging, optical-CT, optical-MRI, optical-PET
- nano/biophotonics: nanoparticles and molecular probes for theranostics
- AI in biomedical imaging and diagnostics.

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## Present your research

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	29 May 2024
Author notified and program posts online	22 July 2024
Registration opens	August 2024
Submission system opens for manuscripts and poster PDFs*	12 August 2024
Poster PDFs due for spie.org preview and publication	18 September 2024
Manuscripts due	25 September 2024

\*Registration is required for presentation and publication

### What you will need to submit

- 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 program (50-150 words; text only)
- Keywords used in search for your paper (optional)

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/pa11call](http://www.spie.org/pa11call)
- You may submit more than one abstract but submit each abstract only once.
- Click the "Submit An Abstract" button on the Conference Page.
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- 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 (attendees in Mainland China register with COS; attendees outside of Mainland China register with SPIE)
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- 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 program 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 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

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