



Digital Optical Technologies 2023 (DOT101)

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Take this opportunity to share your research at SPIE Digital Optical Technologies, a conference dedicated to emerging digital trends and perspectives in optics and photonics. Come to Munich to meet with users and researchers to discuss the latest developments in the field of digital optics.

The symposium will highlight research in all digital aspects of optics and photonics, from design, fabrication, to integration in systems:

DIGITAL IN DESIGN

- iterative optimization concepts
- topological optimization algorithms
- AI- and DNN-aided design techniques

DIGITAL IN FABRICATION

- digital lithography techniques, NIL and novel wafer processing techniques and technologies
- diamond turning / techniques for injection molding, pressure molding, casting,...
- additive/subtractive manufacturing techniques and technologies
- digital 3D printing by two photon polymerization.

DIGITAL IN OPERATION

- dynamic digital optics for switching, tuning or functionality reconfiguring
- computational techniques to enhance imaging, display and sensing functionality.

DIGITAL OPTICS BUILDING BLOCKS CAN BE GROUPED IN THREE CATEGORIES

- macro-optics: refractive freeform optics, hybrid refractive/diffractive optics, graded index optics...
- micro-optics (MEMS, wafer scale optics, photonic integrated chips, silicon photonics,...)
- nanophotonics (metasurfaces, photonic crystals, plasmonics,...).

CO-LOCATED WITH LASER 2023 IN MUNICH, GERMANY, THIS NEW SYMPOSIUM AIMS AT COMBINING ALL ASPECTS OF DIGITAL OPTICS AROUND THE FOLLOWING INDUSTRY SECTORS

- immersive displays and sensing (AR, VR, MR, smart glasses, ...)
- IOT sensors (6G, ...)
- automotive and robotics (novel lighting, sensing, lidar, ...)
- computing and datacom (silicon photonics, digital fiber optical communication, SLM, AI, PICs,...)
- quantum technologies (quantum computing, communication, sensing, microscopy, ...)
- biomedicine (computational microscopy and endomicroscopy, adaptive optics, wavefront shaping, single shot 3D imaging, AI, ML, DNN,...)

EXAMPLES OF APPLICATION FIELDS USING DIGITAL OPTICS

- display, imaging and sensing using digital optics
- datacom, computing and silicon photonics using digital optics
- computational display, imaging and sensing
- novel sensors using digital optics
- immersive imaging technologies using digital optics
- light field shaping using computer generated holograms
- applied digital optics in metrology
- AI-controlled adaptive optics
- virtual staining in biomedicine using neural networks.

These are emerging today as hot topics in academia, research institutions, industry and consumer devices. Researchers, engineers, product development managers, industry leaders as well as venture capital and market analysts are welcome to share their knowledge and experience, and be part of the ongoing digital optics revolution.

www.spie.org/dot101

COLLOCATED WITH

WORLD OF PHOTONICS CONGRESS

International Congress on Photonics in Europe

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www.photonics-congress.com

Learn about recent advances in using digital technologies to enhance the performance of optical imaging, display and sensing. Find out about new approaches that push digital principles at the macro-, micro- and nanoscales to the forefront of optics. Exchange new ideas, address your shared concerns, and get access to information not yet published in the mentioned topical areas. Share your research with other engineers, scientists and researchers.

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Present your research at SPIE Digital Optical Technologies

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	1 March 2023
Submission system opens	24 April 2023
Authors notified	12 April 2023
Program online	12 April 2023
Registration opens	April 2023
Poster PDFs due	30 May 2023
Manuscripts due	7 June 2023

Post-deadline abstracts

- Browse the conference topics to see list of online conferences under each area, or view the Call PDF
- Select ONE conference that most closely matches the topics of your abstract, and make a note of that conference number. You may submit more than one post-deadline abstract, but submit each abstract only once
- Sign in to the post-deadline submission portal: www.spie.org/dot101
- When prompted, include the number of the conference to which you want to submit, e.g., B0100 or 10020

What you will need to submit

- Title
- Author(s) information
- 250-word abstract for technical review
- 100-word summary for the programme
- Keywords used in search for your paper (optional)
- Your decision on publishing your presentation recording to the SPIE Digital Library
- Some conferences may indicate additional requirements in the call for papers

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.

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
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- 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
- 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

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