

20–24 August 2023
San Diego, California, USA



UV/Optical/IR Space Telescopes and Instruments: Innovative Technologies and Concepts XI (OP341)

Conference Chairs: **Allison A. Barto**, Ball Aerospace (United States); **Fanny Keller**, European Space Research and Technology Ctr. (Netherlands); **H. Philip Stahl**, NASA Marshall Space Flight Ctr. (United States)

Program Committee: **Julien Archer**, Airbus Defence and Space (France); **Jonathan W. Arenberg**, Northrop Grumman Corp. (United States); **Sean Brennan**, L3Harris Technologies, Inc. (United States); **Lee D. Feinberg**, NASA Goddard Space Flight Ctr. (United States); **Jeong-Yeol Han**, Korea Astronomy and Space Science Institute (Korea, Republic of); **James P. McGuire Jr.**, Jet Propulsion Lab. (United States); **Scott Richardson**, Lockheed Martin Corp. (United States); **Eric Ruch**, Safran Reosc (France); **Jeffrey Scott Smith**, NASA Goddard Space Flight Ctr. (United States)

All space faring nations, organizations and companies are invited to submit papers for space missions operating from the UV/Optical to the Far-Infrared and ranging from small (CubeSAT, Explorer) to large (Probe or Flagship). Papers are solicited for:

- Science-Driven Systems-Engineering
- Technology Innovation and Maturation
- Integration Alignment and Test
- Performance Verification and Validation

Additionally, we are planning a special session to celebrate our colleague Dr. James B. Breckinridge. Papers are solicited on topics which were inspired by Jim or work done in collaboration with Jim.

Science-driven systems-engineering papers derive system and component level performance specifications from science requirements for candidate mission concepts and identify gaps in the technology needed to meet those specifications.

Technology innovation and maturation papers present solutions for specific technology gaps and progress towards closing those gaps from concept to flight.

Papers are sought addressing topics that include, but are not limited to:

- Mission Concepts that perform high-priority science
 - UV/Optical/Near-IR
 - Mid-IR/Far-IR
 - Cooperative Observatory Constellations
- Mission Architecture
 - Single or Multiple Aperture
 - Imager or Interferometer (structurally connected or free-flying)
 - In-Space Manufacture, Assembly and Servicing
 - Small (CubeSAT or Explorer)
 - Medium (MidEx)
 - Large (Probe or Flagship)
 - System Level Integration, Alignment and Test

- Telescope Point Designs that enable mission concepts
 - Large Aperture – Monolithic or Segmented
 - Ultra-Stable – Mechanical and Thermal
 - Passive Design
 - Isolation
 - Active – sense, control, and algorithms
 - Wide Field of View (>10 degrees)
 - Cryogenic
 - Low-Cost
 - Straylight Suppression
 - Structures and Mechanisms

- Instrument Point Designs that enable mission concepts
 - All wavelengths: UV to Optical to Far-Infrared.
 - Imagers
 - Spectrometers
 - Polarimeters
 - Interferometers
 - Free-Form Optical Designs
 - Integration Alignment and Test
 - Radiation Effects and Mitigation

- Technology Development needed to enable mission concepts
 - Technology Advance that enables performance improvements
 - Technology Advance that reduces cost or risk.

Please note, this conference does not solicit papers on coronagraphy, detectors/focal plane arrays, or the optical manufacture and test of mirror assemblies - other conferences solicit such papers.

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Present your research at SPIE Optics + Photonics

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	8 March 2023
Registration opens	8 May 2023
Authors notified and program posts online	15 May 2023
Submission system opens for manuscripts and poster PDFs*	20 June 2023
Poster PDFs due for spie.org preview and publication	26 July 2023
Manuscripts due	2 August 2023
Advance upload deadline for oral presentation slides**	18 August 2023

*Contact author or speaker must register prior to uploading

**After this date slides must be uploaded onsite at Speaker Check-In

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

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/op341call
- 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: 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 program during and immediately after the event
- 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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Contact information

For questions about your presentation, submitting an abstract post-deadline, or the meeting, contact your Conference Program Coordinator.