

# **Call for Papers**

Abstract and Summary Submission Deadline: 16 March 2022

# Imaging and Applied Optics Congress

PRESENTED WITH

## **Optical Sensors and Sensing Congress**

11 – 15 July 2022

Hyatt Regency Vancouver Vancouver, British Columbia, Canada

A Hybrid Meeting Format – In Person and Virtual

#### **CO-LOCATED TOPICAL MEETINGS**

3D Image Acquisition and Display: Technology, Perception and Applications Adaptive Optics: Methods, Analysis and Applications Computational Optical Sensing and Imaging Imaging Systems and Applications Propagation Through and Characterization of Atmospheric and Oceanic Phenomena

#### optica.org/ImagingOPC

### About the congress.

Recent leading-edge advances in the field of image acquisition, processing and display have led to major improvements in the image products on the market today.

Reported at this congress are the state-of-the-art advances that will continue to contribute to this progress. Examples to be discussed include: results to mitigate the effects on light propagation in complex media such as in biological tissue, and in scattering and turbulent atmospheres; compressive and computational image processing that in many cases employ machine learning techniques; the collection, processing, display and perception issues with 3-D information; and new approaches such as neuromorphic and metamorphic image processing.

Also to be reported are advances in image acquisition for use in autonomous platforms including UAV remote sensing and self-driving vehicles. Finally, presentations on sampling theory and inverse techniques applied to image-difficult problems will cover the details describing the limits in image acquisition and information extraction and will provide suggestions for improvements that can be applied to enhance current image acquisition capabilities.

#### Two congresses. One phenomenal event.

Imaging and Applied Optics Congress will be presented with Optical Sensors and Sensing Congress in a hybrid format comprised of in-person and online (virtual) options.

Nine topical meetings and a combined exhibition will provide enhanced opportunities to learn from and network with a significantly larger community of scientists.

## **Congress Chairs**

Imaging and Applied Optics Congress



**Ram Narayanswamy** Teaq Innovations, USA, Chair

#### Optical Sensors and Sensing Congress



**Gerard Wysocki** Princeton University, USA, Chair

#### **CO-LOCATED TOPICAL MEETINGS**

#### Imaging and Applied Optics Congress

- 3D Image Acquisition and Display: Technology, Perception and Applications
- Adaptive Optics: Methods, Analysis and Applications
- Computational Optical Sensing and Imaging
- Imaging Systems and Applications
- Propagation Through and Characterization of Atmospheric and Oceanic Phenomena

#### Optical Sensors and Sensing Congress

Provides a forum to facilitate reporting the latest optical-based sensor advances and their use in a variety of applications across industries, and showcases the latest sensor prototypes and products.

- Applied Industrial Spectroscopy
- Laser Applications to Chemical, Security and Environmental Analysis
- Optical Sensors
- Optics and Photonics for Sensing the Environment

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# Adaptive Optics: Methods, Analysis and Applications (AO)

**AO** investigates the commonality and possible synergies between the adaptive optics methods developed and used by various communities pursuing different applications. The topical meeting concentrates on analysis and methods and systems. It focuses on applications including ophthalmology, vision science, microscopy, astronomy, high energy beam control and beam propagation.

#### **Topic Categories**

- 1. Adaptive optics systems/ component technologies
- 2. Wavefront correction optics
- 3. Reconstruction and control algorithms
- 4. Machine learning methods for adaptive optics

Peter Kner

- 5. Imaging through scattering and turbid media
- 6. Signal processing used in adaptive optics implementations
- 7. Limitations and novel applications



**Caroline Kulcsár** Institut d'Optique Graduate School–CNRS, France, Chair



**Chairs** 

**John Girkin** Durham University, UK, Program Chair

University of Georgia, USA, Chair

#### **DEADLINES AND MILESTONES**

Abstract and Summary Submissions Deadline: 16 March 2022

Author Notifications: April 2022

Advance Registration Deadline: 13 June 2022

Hotel Reservations Deadline: 14 June 2022

**Postdeadline Paper Submission Deadline:** 16 June 2022

Early Access to Technical Digest Papers: 01 July 2022

Meeting: 11 - 15 July 2022

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As a presenter, you participate in a comprehensive technical program that includes distinguished experts representing the finest institutions worldwide. As an attendee, you have invaluable opportunities to engage with other presenters and participants in one-on-one, in-depth interactions.

#### **Get Published**

Accepted and presented papers are published on the Society's publishing platform. Optica Publishing Group further supports the visibility of your work by indexing in Ei Compendex, Scopus and Google Scholar.

#### **Choose How You Present**

Imaging and Applied Optics Congress and Optical Sensors and Sensing Congress will be presented in a hybrid format, comprised of in-person and virtual talks. In a year of transition, we offer flexible presentation options that allow you to participate in the format most convenient for you.

Submit your research for consideration. optica.org/ImagingOPC

#### **Contact Us**

Optica provides customer service weekdays from 08:30 to 18:00 in the US Eastern Time Zone.

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