OSA IMAGING AND APPLIED OPTICS CONGRESS

24 – 27 June 2019
Messe München
Munich, Germany

osa.org/ImagingOPC

SUBMISSION DEADLINE:
22 JANUARY 2019
(12:00 EST / 17:00 GMT)

ADVANCE REGISTRATION:
31 MAY 2019

Collocated with

LASER World of **PHOTONICS**

The **OSA Imaging and Applied Optics Congress** provides a comprehensive view of the latest developments in imaging and applied optical sciences, covering its forefront advances as well as the application of these technologies to important industrial, military and medical challenges.

The attendees represent the global community working in imaging and applied optics representing industry, academia and government laboratories.

TOPICAL MEETINGS

The four collocated topical meetings in this congress are:

- Computational Optical Sensing and Imaging
- Imaging Systems and Applications
- Mathematics in Imaging
- Propagation Through and Characterization of Atmospheric and Oceanic Phenomena

CONGRESS CHAIR

Abbie Watnik, *US Naval Research Laboratory, USA, Congress General Chair*

Present at this OSA Congress

As a presenter, you participate in a comprehensive technical program that includes worldwide distinguished experts. In addition to your role as a speaker, you have invaluable opportunities to engage with other presenters and attendees in one-on-one, in-depth interactions.

Accepted papers are published in OSA Publishing's Digital Library and indexed in Ei Compendex and Scopus. Full-text search and key metadata tags for conference papers are available to Google to facilitate results in its search engine and Google Scholar.

OSA The Optical Society | 1∞ Since 1916

OSA IMAGING AND APPLIED OPTICS CONGRESS

TOPICAL MEETINGS

- Computational Optical Sensing and Imaging
- Imaging Systems and Applications
- Mathematics in Imaging
- Propagation Through and Characterization of Atmospheric and Oceanic Phenomena

24 – 27 June 2019
Messe München
Munich, Germany

osa.org/ImagingOPC

Collocated with

LASER World of **PHOTONICS**

OSA | **100**
The Optical Society | Since 1916

OSA Mathematics in Imaging (MATH)

MATH covers two fundamental aspects of imaging: the physical and mathematical modeling of imaging process and the design and analysis of novel theory and algorithms to address the important challenges related to image reconstruction.

This meeting is an opportunity to gather people from optics, mathematics and signal processing to cross-fertilize these fields with discussions on novel technologies, methodologies and challenges.

COMMITTEE

Lei Tian, *Boston University, USA, General Chair*

Ulugbek Kamilov, *Washington University in St. Louis, USA, Program Chair*

Pierre Weiss, *Université de Toulouse, CNRS, France, Program Chair*

TOPIC CATEGORIES

Foundations in electromagnetics and imaging

- Propagation of waves
- Scattering (e.g., surface scattering, volumetric scattering)
- Phase, statistical optics, coherence optics
- Image formation (e.g., tomography, telescope, microscopy, remote sensing, multi-aperture system)
- Theory and algorithms of optical element designs (e.g., computer generated hologram, volume holograms, photonic elements)
- Nonlinear optics
- Linear and nonlinear spectroscopy

Foundations in mathematics and signal processing

- Variational or Bayesian regularization of inverse problems (e.g., total variation or frame based regularization)
- Bilinear inverse problems (e.g., blind deblurring, self-calibration)
- Sampling theory (e.g., compressive imaging, adaptive sampling)
- Theory and algorithms of learning techniques (e.g., dictionary learning, neural networks)
- Optimization theory and algorithms for convex and nonconvex problems (e.g., phase retrieval, inversion of multiple scattering)