



Imaging and Applied Optics Congress

TOPICAL MEETINGS

- 3-D Image Acquisition and Display: Technology, Perception and Applications
- Adaptive Optics: Methods, Analysis and Applications
- Application of Lasers for Sensing & Free Space Communication
- Applied Industrial Optics
- Computational Optical Sensing and Imaging
- Digital Holography & 3-D Imaging
- Imaging Systems and Applications
- Laser Applications to Chemical, Security and Environmental Analysis
- Mathematics in Imaging
- Propagation Through and Characterization of Atmospheric and Oceanic Phenomena

25 – 28 June 2018

Wyndham Orlando Resort International Drive
Orlando, Florida, USA

osa.org/imagingOPC



SUBMISSION DEADLINE: 24 JANUARY 2018
12:00 EST (17:00 GMT)

ADVANCE REGISTRATION DEADLINE:
29 MAY 2018

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.

CONGRESS CHAIR



Gisele Bennett, Georgia Institute of Technology, 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.

Depending on the topical meeting, you can supplement your presentation with a potential presence in a special feature issue of *Applied Optics*.

Consider presenting your research.
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Laser Applications to Chemical, Security and Environmental Analysis (LACSEA)

LACSEA focuses on new technologies for optical sensing applications, spectroscopic chemical-sensing methods, security applications, remote sensing and tools for environmental analysis.

It covers diagnostics of combustion and industrial process gases, atmospheric sensing and monitoring and the analysis of gases that may contain chemical or biological agents. Also discussed: sensing of liquids (e.g., aerosols) and solids (e.g., particulates or explosives).

COMMITTEE

Weidong Chen, *Université du Littoral Côte d'Opale, France*,
General Chair

Thomas Dreier, *Universität Duisburg-Essen, Germany*,
General Chair

Sean Kearney, *Spectral Energies LLC, USA*, General Chair

Thomas Seeger, *Universität Siegen, Germany*, General Chair

Johannes Kiefer, *Universität Bremen, Germany*, Program Chair

Wolfgang Meier, *German Aerospace Center DLR, Germany*,
Program Chair

Hans Stauffer, *Spectral Energies LLC, USA*, Program Chair

TOPIC CATEGORIES

1. New technologies in laser sources for optical sensing applications:

- Continuous wave, pulsed, modulated lasers and their characterization
- High-repetition-rate sources
- Broadband lasers
- Ultrafast lasers
- Frequency combs

2. Chemical sensing methods:

- Spectroscopic sensing of gases, aerosols and particulates
- Combustion and industrial process monitoring
- Real-time control
- Energy topics
- Extension of techniques toward the VUV or THz spectral ranges
- Novel spectroscopic science
- Nonlinear optical techniques
- Extension to multiple points or to volumetric measurements
- High-repetition-rate imaging
- Sensor miniaturization

3. Security applications:

- Remote sensing
- Miniaturization, optical lab-on-chip systems and silicon photonics
- Distributed sensor networks
- Biochemical/biophysical applications of laser techniques
- Use of new sources offering high power or pulse energy
- Industrial security monitoring and industrial process control

4. Environmental analysis:

- Atmospheric sensing of gases, solids and liquids
- Atmospheric chemistry
- Advancements in LIDAR
- Extension and improvement of spectroscopic databases
- Airborne sensor systems
- Ruggedized sensor systems
- Propagation of laser beams through scattering media
- Urban, rural and volcanic emission measurements

