

ICALEO®

37th INTERNATIONAL CONGRESS ON
APPLICATIONS OF LASERS & ELECTRO-OPTICS

www.icaleo.org

CALL FOR PAPERS AND POSTERS

Abstract Deadline: March 1, 2018

World's Premier Platform for Breakthrough Laser Solutions

ICALEO® brings together the leaders and experts in the field of laser material interaction, providing the world's premier platform for sharing new ideas and discovering solutions.

Focus:

- Laser Materials Processing
- Laser Microprocessing
- Laser Nanomanufacturing
- Laser Applications
- Laser Systems
- Direct Diode Processing
- Ultrafast Laser Processes

Save the Date:

October 14–18, 2018

Rosen Centre Hotel • Orlando, FL USA

Presented by:



LASER MATERIALS PROCESSING CONFERENCE

Co-chairs: Klaus Kleine, Coherent Inc. | Friedhelm Dorsch, TRUMPF Laser- und Systemtechnik GmbH

The Laser Materials Processing Conference will explore new developments of applications, processes and laser beam sources in laser materials processing. The laser is a fundamental tool in today's industrial production and new development of applications, processes and laser beam sources have driven us to levels we have never seen before. This conference will let you experience and discuss the applications and trends of tomorrow. Conference papers are solicited on a wide range of topics related to Laser Materials Processing, including—but not limited to—the following:

INDUSTRIES

- Aerospace
- Automotive
- Medical Device
- Energy / Oil & Gas
- Microelectronics
- Laser Safety
- Shipbuilding / Heavy Manufacturing

PROCESSES

- Advanced Machining
- Cutting / Drilling
- Direct Metal Deposition
- Environmental Issues
- Forming & Cleaning
- Hybrid Processes
- Process Modeling & Control
- Rapid Manufacturing / 3D Printing
- Remote Welding
- Surface Modification
- Welding
- Marking

LASERS & SYSTEMS

- Advanced Laser Sources
- Diode Lasers
- Diode-pumped Lasers
- Fiber and Disk Lasers
- Ultrafast Lasers
- Hybrid Systems
- Sensing & Monitoring
- Software Development

LASER MICROPROCESSING CONFERENCE

Co-chairs: Robert Braunschweig, LASEA | Eric Mottay, Amplitude Systemes

The Laser Microprocessing Conference will consist of papers featuring a wide spectrum of applications and innovative equipment from biomedical applications to photovoltaics. The presentations will introduce the latest and greatest advancements in their respective fields, presented by world leading companies and research organizations. Requested papers will explore a variety of topics related to Laser Microprocessing, including—but not limited to—the following:

APPLICATIONS

- Spatial & Temporal Pulse Shaping Applications to Microprocessing
- Integrated Optics
- Lasers in Electronics Production
- Use of Lasers in Fabrication of Solar Cells and Photonic Components

- Medical Device Fabrication
- MEMS Fabrication & Lasers in Microsystems Technology

PROCESSES

- Cutting / Drilling
- Laser Ablation
- Laser Micro-joining
- Material & Surface Property Modification

- Nonlinear & Near-field Optical Processes
- Two-photon Processes & Microstereolithography
- Ultrafast Laser Processes

SYSTEMS

- Beam Delivery Systems & Scanning Optics

- Laser Micromachining Systems
- Motion Control in Microprocessing
- Picosecond & Femtosecond Lasers
- UV / VUV & EUV Sources
- Beam Sources for Nanoapplications

NANOMANUFACTURING CONFERENCE

Chair: Yongfeng Lu, University of Nebraska–Lincoln

The Nanomanufacturing Conference will consist of presentations on nanomanufacturing, which have relevance to laser technologies. Much progress has been achieved in laser direct writing for nanomachining, nanofabrication using femtosecond lasers and laser assisted growth of nanostructures. This conference will highlight research in emerging nanomanufacturing technologies in 3D micro/nanomachining, 2-photon lithography, digital fabrication, nanoparticle formation, surface nanostructuring and laser assisted growth and epitaxy. Submitted papers may discuss a breadth of subjects related to Nanomanufacturing, including—but not limited to—the following:

HIGHLIGHTED SESSIONS

- Nanomanufacturing of Energy Devices
- Nanometrology
- Nanofabrication of Biomedical Devices
- Nanofabrication of Functional Devices

- Energy Devices
- Imaging
- Information Technology
- Laser Interactions with Biomolecules
- Nano / Bio-sensors
- Nanoelectronics
- NEMS
- Solar Cells

APPLICATIONS

- Biomaterial Nanofabrication
- Biomedical Devices
- Cognitive Devices
- Communications

PROCESSES

- DUV / EUV Lithography
- Femtosecond Laser Machining

- Holography & Interferometry
- Maskless & Soft Lithography
- Nanofiber Electrospinning
- Nanoimprinting / Embossing
- Nanoxerography
- Near Field Scanning Optical Methods
- Plasmonic Imaging
- Pulsed Laser Deposition
- X-Ray Lithography / LIGA

SYSTEMS

- Laser Scanners / Profilometers
- Nanomanipulators
- Nanometrology Platforms
- Nanopositioners
- Nanoscale Rapid Prototypers
- NSOM / SNOM
- Optical / Laser Lithography
- Scanning Probe Microscopes
- Steppers & Aligners

ICALEO® 2018 – PEER REVIEWED PAPERS!

Submitters can select the option to have their technical paper be reviewed by a blind peer review process. The peer review panel will look for quality of the research, relevance, and significance of the findings. These papers will be identified as such in the ICALEO 2018 Technical Digest and Proceedings. Deadline for your peer reviewed manuscript is May 30th (no extensions will be granted). Non-peer reviewed manuscripts are due July 16th.

Business Forum & Panel Discussion

The ICALEO Business Forum & Panel Discussion provides attendees with an exclusive opportunity to listen to and interact with industry experts, business leaders, and decision makers on significant issues facing the laser and photonics industry. Distinguished speakers from around the world will address emerging business topics, and how researchers and laser companies can profit in this arena. This Forum is open to all attendees; you will not want to miss this fantastic opportunity to engage with the speakers during the panel discussion, expand your professional development and enhance your own business perspective.

20th Annual ICALEO Student Paper Award Contest

Awards will be presented to 1st, 2nd and 3rd place winners. Prize winners will be announced during the Closing Plenary Session of ICALEO on Thursday, October 18th and included in an article in the *LIA TODAY* newsletter featuring ICALEO.

Submitted papers will be reviewed by conference chairs and slotted into appropriate sessions. Judges will not review their own students. Students with accepted papers will be judged by an international panel on the following criteria:

- Originality of Topic / Material Presented
- Scientific and Technical Merit / Impact
- Clarity of Presentation (Oral & Visual)

Space in this contest is limited—encourage your students to participate! For more information, email: icaleo@lia.org.

Poster Presentation Gallery

Poster presentations that submit a manuscript will be included in the ICALEO Proceedings. This is an excellent opportunity for networking and the sharing of ideas. Spotlight your work with two full days of exposure. Poster presenters have the opportunity to participate in a Flash Poster Presentation.

Breakfast with the Presenters—Poster Presenters will be by their posters on Wednesday morning to answer questions and present their research to ICALEO attendees. Awards will be presented to 1st, 2nd and 3rd place winners.

Important Dates

Abstract Submission Deadline	March 1, 2018
Manuscript Submission Deadlines:	
• Peer Reviewed Papers.....	May 30, 2018
• Non-peer Reviewed Papers	July 16, 2018
Speaker Registration & Payment Due.....	August 1, 2018

How to Present

Submitted abstracts should contain original, recent, unpublished results of application research, development, or implementation. Authors are encouraged to indicate the current phase of their work. Commercial papers will not be accepted.

Authors are asked to secure company and/or government security clearance to present and publish as early as possible. This enables LIA to ensure the quality of the conference and to minimize last minute withdrawn papers.

Please secure travel and accommodation funding through sponsoring organizations prior to submitting abstracts. We regret that travel and accommodation funding is not available through LIA.

Final Manuscript Submission

Manuscript deadlines must be strictly observed. Late manuscripts will not be published in the proceedings. This policy enables LIA to better serve congress participants by publishing the proceedings before the congress. Your cooperation is appreciated by all.

Presented by:

