# **LAMP2025**

# The 9th International Congress on Laser Advanced Materials Processing

LPM2025 The 26th International Symposium on Laser Precision Microfabrication

HPL2025 The 9th International Symposium on High Power Laser Processing



Date June 10-13, 2025

Venue Sinfonia Technology Hibiki Hall Ise https://www.ise-kanbun.jp/

Ise-city, Mie-prefecture, Japan https://www.iseshima-kanko.jp/en

Organizer Japan Laser Processing Society (JLPS) http://www.jlps.gr.jp/

## **Aim and Scope**

The International Congress on Laser Advanced Materials Processing (LAMP) deals with the science and technology of advanced laser materials processing, covering precision microfabrication and high-power laser processing. LAMP2025 will be held from June 10-13, 2025, in Ise City, Mie Prefecture, Japan.

LAMP2025 consists of two international symposia: Laser Precision Microfabrication (LPM) and High Power Laser Processing (HPL). It covers hardware and software for fundamental research and industrial applications in both micro and macro processing.

LAMP2025 is planned as a four-day event featuring a Plenary Session, Oral and Poster Sessions, LPM Special Sessions focusing on topical issues, and an exhibition hosting prominent figures in this field worldwide. The aim of this congress is to provide a forum for discussing fundamental aspects of laser-matter interaction, the state-of-the-art in laser materials processing, and next-generation topics with fundamental scientists, end-users, and laser manufacturers.

We anticipate that LAMP2025 will play an important role not only in advancing the understanding of fundamental laser materials processing but also in forecasting future technologies and trends in the laser market.

## **Committees**

- General Chair: Yasuhiro Okamoto, Okayama University, Japan
- Co-Chairs: Mitsuhiro Terakawa, Keio University, Japan (LPM2025 Program Chair)

Masahiro Tsukamoto, JWRI, Osaka University, Japan (HPL2025 Program Chair)

Yongfeng Lu, University of Nebraska-Lincoln, USA

Michael Schmidt, Friedrich-Alexander Universität Erlangen-Nürnberg, Germany

- Steering Committee Chair: Yoichiroh Hosokawa, Nara Institute of Science and Technology, Japan
- Treasurer Leader: Yasutaka Hanada, Hirosaki University, Japan
- Honorary Chairs: Isamu Miyamoto, Emeritus Prof., Osaka University, Japan

Koji Sugioka, RIKEN, Japan; Hiroyuki Niino, AIST, Japan;

**Seiji Katayama**, Emeritus Prof., Osaka University, Japan



#### LAMP2025 TOPICS

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- Fundamental aspects (Dynamics, modeling, simulation, etc.)
- Laser and photochemistry
- 3. Ultra-short pulse laser processing
- 4. Burst ablation
- 5. Advanced laser processing (Fiber laser, disc laser, FEL, etc.)
- 6. Glass/Ceramic processing
- 7. VUV laser and X-ray processing
- 8. Nanotechnology
- 9. Nano-ripple formation
- 10. Nano- and micro-particles (including laser synthesis and processing in liquids)
- 11. Micro-machining
- 12. Micro-drilling and micro-cutting
- 13. Micro-welding and micro-bonding
- 14. Micro-forming
- 15. Micro-patterning and micro-structuring
- 16. Surface processing (Texturing, cleaning, annealing, modification, etc)
- 17. 3-D micro- and nano-fabrication
- 18. Film deposition and synthesis of advanced materials (PLD, CVD. etc.)
- 19. Laser-based direct-write techniques
- 20. Laser-induced forward transfer (LIFT) techniques
- 21. Lithography (including EUV source and application)
- 22. Laser devices
- 23. Beam shaping
- 24. Optics and systems for laser microprocessing
- 25. Process monitoring and control
- 26. Packaging and mounting process
- 27. Manufacture of micro devices and systems
- 28. Medical and biological applications
- 29. Industrial applications
- 30. Others
- 31. Special Session 1: Laser materials processing in liquids
- 32. Special Session 2: Ultrashort pulse laser processing of transparent materials

#### **HPL2025 TOPICS**

- Fundamentals of laser-materials interactions
- 2. Laser-induced plasma/plume
- 3. Gas laser
- 4. Solid-state laser (YAG, Fiber, Disk, etc.)
- 5. Diode laser
- 6. Green or blue laser
- 7. Optics
- 8. Beam delivery system
- 9. Monitoring and control (including OCT)
- 10. Metallurgical and mechanical aspects
- 11. Modeling and simulation
- 12. Cleaning
- 13. Surface modification (Hardening, quenching, alloying, etc.)
- 14. Cladding and rapid prototyping
- 15. Additive manufacturing (3D Printer)
- 16. Welding
- 17. Welding of thick plate
- 18. Welding of high strength steel
- 19. Welding of light metals and alloys
- 20. Joining of plastics, glasses or ceramics
- 21. Joining of dissimilar materials (plastic to metal)
- 22. Joining of battery or fuel cell
- 23. Remote welding
- 24. Hybrid welding
- 25. Brazing and soldering
- 26. Drilling (High speed and high quality)
- 27. Cutting (of CFRP, etc.)
- 28. Thick plate cutting and dismantling
- 29. Industrial applications
- 30. Innovative applications (Sandwich panel, etc.)
- 31. Present status and future prospects
- 32. Others

#### CONTACT

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