

Call for papers

OMC '26 (13th OPTICAL MANIPULATION and STRUCTURED MATERIALS CONFERENCE)

*Sponsored by
SPIE*

*In cooperation with
Grant-in-Aid Transformative Research Area (A)
“Revolution of Ciral Materials Science Using Helical Light Fields”*

***Apr. 21(Tues.)-Apr. 24(Fri.), 2026
Pacifico Yokohama, Yokohama, Japan
Paper Deadline: Dec. 22.***

OBJECTIVE

The 13th OPTICAL MANIPULATION and STRUCTURED MATERIALS CONFERENCE (OMC '26) will be held at Pacifico Yokohama, Kanagawa Prefecture, Japan on April 21 - April 24, 2026 in the frame of the Optics & Photonics International 2026 Congress. This conference is organized and sponsored by SPIE in cooperation with Grant-in-Aid Transformative Research Area (A) “Revolution of Ciral Materials Science Using Helical Light Fields”. The OMC'25 was very successful to collect over 80 attendees.

The OMC '26 aims to present and learn about up-to-date scientific subjects and new technologies related in the field of optical trapping, optical materials manipulation, structured light, and their satellite topics. The conference also welcomes plasmonics and metamaterials for optical manipulation. This conference will provide scientific and professional networking as well as scientific inspiration discuss to the attendee.

SCOPE

OMC'26 covers optical trapping and materials manipulation technologies in the following topical fields:

A. Structured light fields

Optical vortices, Vector beams, Non-diffractive beams, Optical quasiparticles, Spatio-temporal laser control technologies etc.

B. Optical trapping and materials manipulation

Optical tweezer, Holographic optical manipulation, Plasmonic trapping, Multi-photon trapping, Nanomanipulation with nanofiber, Atom trapping & cooling, etc.

C. Fundamentals

Optical chirality, Optical spin-orbit interactions, Light-matter interactions with structured light etc.

D. Applications

Laser processing with structured light, Bio-photonics with structured light, Metamaterials for structured light, Optical/quantum communications, Optical/ quantum data storage, Chemical reaction with structured light

SUBMISSION OF PAPERS

Original papers that have not been previously presented and that describe new technical contributions to the areas covered by the technical descriptions in the aforementioned scope will be accepted for presentation. A detailed instruction will be available from the Web site.

OMC '26 COMMITTEE MEMBERS

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| CHAIR | Takashige Omatsu (Chiba Univ., Japan) |
| CO-CHAIRS | Kishan Dholakia (University of Adelaide, Austlaria) |
| | Sile Nic Chormaic (OIST, Japan) |