### **ALPS 2024**

- Novel optical materials/ structure and applications
- · High average power lasers and applications
- High peak power lasers, high pulse energy lasers and applications
- Novel solid state/ fiber/ diode lasers and applications
- Short wavelength light sources and applications
- · Terahertz devices, nonlinear optics and applications
- Novel optical devices, metamaterials, structure and applications
- Optical devices and techniques for bio and medical applications
- Optical frequency combs/ frequency stabilized lasers and applications
- · Quantum optics and their applications

### BFSS 2024

- BUSINESS FOR SUSTAINABLE SOCIETY
- FINANCE FOR SUSTAINABLE SOCIETY
- BUSINESS AND FINANCE IN PHOTONICS INDUSTRIES

#### **BISC 2024**

- medical and biological imaging instrumentation and techniques
- optogenetics
- advanced microscopy
- advanced endoscopy
- · super resolution in biomedical imaging and sensing
- computational imaging in biomedical imaging and Sensing
- adaptive optics in biomedical imaging and sensing
- structured illumination in biomedical imaging and sensing
- interferometry and holography in biology and medicine
- optical coherence tomography
- diffuse optical tomography
- · digital holography
- · quantitative phase imaging
- photoacoustic imaging
- multimodal imaging and sensing
- optical biopsy
- spectroscopic imaging and sensing
- · multispectral imaging and sensing

- · scattering imaging
- fluorescence imaging
- molecular imaging
- · terahertz sensing
- optical fibers and sensors for biomedicine
- multimodality optical diagnostic systems.

### HEDS 2024

- Collisionless shock acceleration
- Turbulence acceleration
- · Magnetic reconnection acceleration
- Laboratory High-Endergy-Density experiments
- Advanced numerical simulations

#### **ICNN2024**

- Fundamentals of light matter interaction in Nanostructures
- Silicon photonics
- · Semiconductor nano-scale devices
- Quantum dots and nanowires
- Quantum well, quantum dot and quantum cascade lasers
- Quantum optics and Quantum information technology
- Photonic crystals
- · Near-field optics
- Bio-photonics
- Spintronics
- Plasmonics
- Metamaterials
- Nanolasers
- Solar cells
- Integrated photonic circuits

#### IP2024

- · Optical computing
- Fourier optics
- · Digital optics
- Optical and optoelectronic information processing
- · Nanophotonic information system
- Optical biomimetic computing
- Optical cryptology
- Holography and holography art
- · Computer-generated hologram
- Electronic holography
- 3D display

- · Volumetric display
- Holographic display
- · Aerial display
- · Head-up display
- Near-to-eye display
- · Novel display
- · Light-field imaging and display
- Digital holography
- Quantitative phase imaging
- · Polarimetric Imaging
- Optical, optoelectronic, optofluidic, and imaging Devices
- · Computational imaging
- Compressive imaging
- Structured illumination imaging
- Novel imaging
- · Novel camera
- Ptychography
- Full-field optical coherence tomography
- Imaging in scattered medium
- Digital phase conjugation
- Pump-probe imaging
- · Ultrafast imaging
- · X-ray imaging
- THz imaging
- Adaptive optics
- Optical memory
  Holographic data storage
- · Spatial light modulator
- Vision engineering
- · Appearance control
- Projection mapping
- · Al Optics
- VR (virtual reality)
- AR (augmented reality)

### LDC2024

- · Light Sources and Cmponents
- · Imaging / Lighting
- · Al and DX analysis for Smart Systems
- XR(AR, MR, VR) and Metaverse Technologies
- Laser Applications for Moving Platforms
- · Novel and Emerging Technologies

### LEDIA2024

- · Light-Emitting Diodes
- · Laser Diodes
- · Photodetectors and Solar Cells
- · Epitaxial Growths
- Extended Wavelength Devices
- · Novel Fabrication Processes
- Novel Characterization Methods
- Novel Materials and Devices
- · Industrial Application

### LSC2024

- New laser and synchrotron sources
- Developments on laser and synchrotron instrumentation
- Recent studies on laser and synchrotron radiation
- Experimental techniques and utilization of lasers and synchrotrons
- Applications of laser and synchrotron on materials science and biological sciences

#### LSSE2024

- · Carbon Neutral
- · Agri-photonics
- Space technology
- · Remote sensing
- · Industrial application

# OMC2024

- structured optical fields, including beam shaping, polarization control, pulse shaping, frequency extension, and ultrafast laser technologies
- optical trapping and manipulation, including optical tweezer, holographic optical manipulation, plasmon trapping, multi-photon trapping, and atom trapping and cooling
- fundamental researches and advanced technologies enabled by structured materials, such as metamaterials, metasurfaces, and photonic crystals
- advanced devices and instruments, including spatial light modulator, adaptive optics, and near-field optical devices

- applications including structured material processing, single molecule trapping, biophotonics, metamaterials, qantum communications, and selective control of chemical reaction
- novel approaches, including novel interaction between optical fields and materials on nanoscale, novel regimes of spin-orbit interaction, and quantum control of molecular dynamics

## OPTM2024

- 3D profilometry
- · polarimetry/ellipsometry
- · novel optical testing
- · surface inspection methods and applications
- absolute testing for metrology
- application of interferometric techniques
- machine/robot vision methods, architectures and applications
- lighting methods and systems for inspection
- dynamic measurement
- unique optical systems for inspection and measurements
- 2D and 3D machine vision methods and applications
- · 3D data acquisition
- · freeform testing
- scatterometry
- · unconventional microscope for inspection
- super-high accurate measurement for smooth surfaces
- micro- and nano-scale measurement methods
- structured light methods, fringe projection measurement and applications
- phase shifting methods applied to industrial inspection
- mechanic-optics and photonics for metrology and inspection
- optical inspection by optical comb
- super resolution microscope for inspection
- spherical and aspherical measurements
- color metrology of manufactured goods
- on-line and process control measurements
- on-machine tool measurements of shape and finish
- high-resolution and high-speed inspection applications
- novel interferometry

# OWPT2024

- Devices and components
- · Systems and subsystems
- Applications
- Others (Standardization, Regulations, and Novel/ emerging topic related to the OWPT conference)

## SLPC2024

- Cutting
- Welding
- Additive Manufacturing / Selective Laser Melting
- · Cladding / Laser Metal Deposition
- · Functional Surface Manufacturing
- Laser Peening and Related Phenomena
- Laser Polishing / Cleaning
- Short Wavelength Application
- Micro Nano Processing
- Ultrashort Pulsed Laser Processing
- Advanced Lasers and Optical Technologies
- CFRP Processing
- Industrial Applications
- AI / CPS Laser Processing
- High Power Blue and Green Lasers
- Others

# TILA-LIC2024

- TINNY INTEGRATED LASERS
- · OPTICAL MATERIALS FOR TINNY INTEGRATED LASERS
- · LASER INDUCED PHENOMENA BY POWER MINIATURE I
- APPLICATION OF TINY INTEGRATED LASERS
- · GIANT MICRO-PHOTONICS

## XOPT2024

- X-ray optical components
- Methods/ Applications
- Others (X-ray sources, X-ray detectors)