

KEYWORDS FOR IEEE PHOTONICS JOURNAL

Photon Sources

Coherent sources
Atomic gas lasers
carbon dioxide lasers
Chemical lasers
Coherent sources modeling and theory
Color center lasers
Diode lasers
Diode-pumped lasers
Dye lasers
Erbium lasers
Excimer lasers
Extreme ultraviolet and x-ray lasers
Fiber lasers
Free electron lasers
Frequency doubled lasers
High order harmonics
Infrared lasers
Injection locked lasers
Ion lasers
Laser amplifiers
Laser beam combining
Mode-locked lasers
Q-switched lasers
Quantum cascade lasers
Semiconductor lasers
Solid state lasers
Tunable lasers
Ultrafast lasers
Ultraviolet lasers
Visible lasers
Incoherent sources
Incoherent sources modeling
light emitting diodes
Synchrotron sources
THz sources
Other sources
MWIR devices
Novel photon sources
Sources for lithography
Undulator radiation

Ultrafast, attosecond, high field and short wavelength photonics

Attosecond pulse generation and characterization
Attosecond technology
EUV, X-ray applications
EUV, X-ray imaging
EUV, X-ray spectroscopy
Frequency combs
Harmonic injection
High harmonic interaction with materials, gases and liquids
Picosecond phenomena
Pulse compression
Pulse shaping
Supercontinuum generation
Ultrafast devices
Ultrafast measurements
Ultrafast nonlinear processes
Ultrafast phenomena
Ultrafast spectroscopy

Ultrafast technology
Ultrahigh field laser particle guiding
Ultrahigh field laser photonics
Ultrashort pulse measurements

Photonic materials and Engineered photonic structures

Photonic materials
Display materials
Inorganic photovoltaics materials
Laser crystals
Laser damage
Metrology
Multilayer interference coatings
Nanowires
Nonlinear crystals
Nonlinear crystals
Optical and Other properties
Optical properties of photonic materials
Optoelectronic materials
Organic photovoltaics materials
Other Applications
Oxide materials
Quantum dots and colloidal systems
Semiconductor confined systems
Semiconductor materials
Spectroscopy
Synthesis and fabrication methods
Theory and design
Thin film coatings
Waveguides
Engineered photonic nanostructures
Fabrication and characterization
Lithography
Metamaterials
Micro and nano antennas
Nanostructures
Other Applications
Other fabrication methods
Photonic bandgap structures
Plasmonics
Subwavelength structures
Optics
Advanced optics design
Diffractive optics
Fiber gratings
gratings
Micro-optics
THz optics
Ultrafast optics
X-ray mirrors
X-ray optics
Micro and Nano Opto-Electro-Mechanical Systems (MOEMS)
Optical MEMS

Light interaction, nonlinear effects
Cascaded nonlinear processes
Four wave mixing

Fiber non-linear optics
Kerr effect
Nonlinear optical effects in semiconductors
Second harmonic generation
Solitons
Slow light and Brillouin applications
Solitons and polaritons
Spectroscopy
Heterodyne
Luminescence and fluorescence
Nonlinear Integrated Optics
Nonlinear
Raman spectroscopy
Speckle
Surface
Terahertz
Self-action effects
Scattering
Extinction
Mie Theory
Theory
Ultrafast nonlinear processes
Two-photon processes

Nanophotonics

Carbon nanotubes and confined systems
Integrated nanophotonic systems
Nano-antennas
Nanocavities
Nanohole arrays
Non-linear effects in nanostructures
Photonic crystal lasers
Photonic crystals
Plasmonics
Quantum dots and single molecules
Silicon nanophotonics

Magnetophotonics

Devices
Light-material interactions
Magnetic domain imaging
Metrology
MOKE

Biophotonics, Medical Photonics and DNA Photonics

Light-tissue interactions
Microscopy
DNA sensing
Non-linear optical microscopy
Blood or tissue sensing
Coherence imaging
Endoscopic imaging
Optical coherence tomography
Instrumentation
Medical photonics
Nanobiophotonics
Spectroscopy of biological materials

Cell analysis
Tissue analysis
Photon-based therapies
Multimodal diagnostics/imaging technologies
Biosensors
Laser micromanipulation
Laser surgery
Flow cytometry instrumentation and testing

Imaging

Coherent imaging
Diffractive imaging
Holography
Time resolved imaging
Imaging systems
Microscopy
Scanning microscopy
THz microscopy
Near field microscopy
Fluorescence microscopy
Confocal microscopy
Three dimensional microscopy
Other imaging techniques

Microwave photonics

Photodetectors
Terahertz sensing
Microwave photonics signal processing
Photonics analog-to-digital conversion
Novel methods

Integrated Photonic Systems

Sensors
Visualization
Heterodyning
Homodyning
Fiber optics systems
Pulse propagation
Solitons
Free space communication
Electro-optical systems
Waveguide devices
Tunable filters
Optical interconnects
Optical communications

Quantum information

Coherent communication
Security and encryptions

Other areas of Photonics

Plasmas
Plasmas probing
Photochemistry
Modeling
Coherent effects
Bose-Einstein condensates
Instrumentation
Laser cooling
Technologies for computing
Photovoltaics