LOPS ANNUAL CONFERENCES

Scientific Program

#75 INTERNATIONAL SPEAKERS #40 COUNTRIES #3 DAYS

2nd Annual International Scientific Conference & Hybrid Expo on

# Lasers, Optics, Photonics, Sensors & Ultrafast Nonlinear Optics

June 10-12, 2022 | Virtual Conference

www.exceleve.com/photonoptics

All the Time are in USA Eastern Standard Time

| Duration | Type | Code | Notes |
|---|---|---|---|
| 40 | Plenary | P | Conference Souvenir & Certificates will be circulated after the conference |
| 30 | Keynote | K | Reviewed Abstracts will be published in the Conference Souvenir |
| 20 | Invited | I | |
| 15 | Student | S | |
| 20 | Coffee Break | CB | |
| 30 | Lunch Break | LB | |
| 10 | Opening Cermoney | O | |
| 5 | Closing Cermoney | C | |
| 0 | End | E | |

LOPS ANNUAL CONFERENCES

| Start Time | 8:00AM | 0 |
|---|---|---|

## Friday June 10, 2022 All the Time are in USA Eastern Standard Time (EST)

| Presenters local Time | EST Zone | Paper # | Code | Min | Session I - Presenter/Paper Title | Chair/Session Chair |
|---|---|---|---|---|---|---|
| | 8:00AM | Opening Cermoney | O | 5 | **By Conference Chairman: Heinz W. Siesler,** University of Duisburg-Essen, Germany | Heinz W. Siesler, UDE, Germany |
| 5:35 PM Pune, India | 8:05AM | LOPS2022-P02 | I | 20 | **Shouvik Datta, IISER, India:** Tailoring Quantum Oscillations of Excitonic Schrodinger's Cats as Qubits | Heinz W. Siesler, UDE, Germany |
| 5:55 PM Delhi, India | 8:25AM | LOPS2022-S01 | I | 20 | **Mehta D. S., IIT Delhi, India:** Laser Based Solid State Lighting, Illumination Engineering and Communication | Heinz W. Siesler, UDE, Germany |
| 09:00 AM New York, USA | 8:45AM | LOPS2022-P01 | P | 40 | **Andreas H. Hielscher, Professor, Chair & Director, Clinical Biophotonics Laboratory (CBL), New York University, USA :** Deep Tissue Optical Tomography: From Clinical Systems to Wearable Technology | |
| | 9:25AM | | CB | 20 | **Coffee Break** | |
| 9:45 AM NewYork, USA | 9:45AM | LOPS2022-S03 | P | 40 | **Robert Alfano, The City College of New York, USA, Chief Planning Committee member, LOPS Annual Conferences :** Odd Higher Harmonic Generation and Ultra -Supercontinuum explained from instantaneous electronic cloud and slower molecular nonlinear Kerr index of refraction of materials for intense femtosecond laser pulses | Heinz W. Siesler, UDE, Germany |

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|---|---|---|---|---|---|---|
| 8:30 AM Santa Fe, USA | 10:25AM | LOPS2022-O01 | K | 30 | **Robert A. Fisher, President and Senior Laser Physicist RA Fisher Associates, LLC, USA:** The Early Days of Self-Phase Modulation, Pulse Compression and Supercontinuum | Heinz W. Siesler, UDE, Germany |
| 11:00 AM NewYork, USA | 10:55AM | LOPS2022-S02 | K | 30 | **Georgios E. Romanos, Stony Brook University, USA :** Lasers in implant dentistry | Heinz W. Siesler, UDE, Germany |
| 10:00 PM Madra, India | 11:25AM | LOPS2022-S05 | K | 30 | **Prem B. Bisht, IIT Madras** Whispering gallery modes of microcavities and photonic nanojets for sensing applications | Heinz W. Siesler, UDE, Germany |
| 09:05 PM Madras, India | 11:55AM | LOPS2022-S05 | I | 20 | **Sergio Fantini Fellow, American Institute for Medical & Biological Engineering (AIMBE) Fellow, The International Society for Optical Engineering (SPIE) 2004: Graduate Student Council's Award for Outstanding Faculty Contribution to Graduate Studies, Tufts University 2001: Outstanding Faculty Award, Tufts University** | Heinz W. Siesler, UDE, Germany |
| | 11:55AM | | LB | 30 | **Lunch Break** | |

| Presenters local Time | EST Zone | Paper # | Code | Min | Session II Lasers - Presenter/Paper Title (Cont) | Chair/Session Chair |
|---|---|---|---|---|---|---|
| 10:10 PM Meghalaya, India | 12:20PM | LOPS2022-S06 | I | 20 | **Nitu Borgohain, University of Science & Technology Meghalaya (USTM), India:** Control Field Induced Suppression of Modulation Instability in Multiple Quantum Wells | Heinz W. Siesler, UDE, Germany |
| 10:30 PM Patna, India | 12:40PM | LOPS2022-O03 | I | 20 | **Utpal Roy, IIT Patna, India:** From Quantum Simulation to Quantum Sensing for Ultracold Matter Waves | Heinz W. Siesler, UDE, Germany |
| 1:00PM NewYork | 1:00PM | LOPS2022-L03 | I | 20 | **Richard Kyung** | Heinz W. Siesler, UDE, Germany |
| 8:20PM Jerusalem, Israel | 1:20PM | LOPS2022-L07 | I | 20 | **Salman Noach, Jerusalem College of Technology, Israel:** Widely tunable high energy pulsed Tm:Yap laser for biomedical applications | Heinz W. Siesler, UDE, Germany |
| 6:40PM UK | 1:40PM | LOPS2022-L04 | I | 20 | **Benedykt Michal Josef Campbell-Biezanek GNQR, UK:** Quantum-Relativity | Heinz W. Siesler, UDE, Germany |
| | 2:00PM | | CB | 20 | **Coffee Break Session II** | |

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|---|---|---|---|---|---|---|
| 8:20 PM Strasbourg, France | 2:20PM | LOPS2022-L01 | K | 30 | **Nicolas Javahiraly, University of Strasbourg, France, Session Chair, LOPS Conferences:** Study of Plasmonic Nano Sensors for Hydrogen Leak Detection | Heinz W. Siesler, UDE, Germany |
| 6:40 PM Braga, Portugal | 2:50PM | LOPS2022-O07 | I | 20 | **Ashis Tripathy, CMEMS-University of Minho, Portugal:** Nanomaterial based Wearable biosensing technology for healthcare applications | Heinz W. Siesler, UDE, Germany |
| 3:00 PM Durham, North Carolina, USA | 3:10PM | LOPS2022-O09 | S | 20 | **Igor Filikhin, North Carolina Central University, USA :** Numerical Simulation for Electron Tunneling in Analyte/Quantum-Dot Nanosensor | Heinz W. Siesler, UDE, Germany |
| 8:30 PM Lecce, Italy | 3:30PM | LOPS2022-O24 | I | 20 | **Elisabetta Primiceri CNR- Nanotechnology Institute, Lecce, Italy:** Core-shell 3D chiral metamaterial for femtomolar detection of biomolecules | Heinz W. Siesler, UDE, Germany |
| 4:40 PM Sao Paulo, Brazil | 3:50PM | LOPS2022-O11 | I | 20 | **Mara Lucia Goncalves Diogo, UNINOVE, Nove de Julho University, Brazil:** Effect of Blue Light on Acne Vulgaris: A Systematic Review | Heinz W. Siesler, UDE, Germany |
| 3:00 PM Dallas, USA | 4:10PM | LOPS2022-P10 | I | 20 | **Michae I. Tribelsky:** Lomonosov Moscow State University, Russia | Heinz W. Siesler, UDE, Germany |
| | 4:30PM | | e | | **Buyanova:** Wurtzite crystalline structure enhances second-harmonic generation in GaAs nanowires | Heinz W. Siesler, UDE, Germany |
| 10:30PM | 4:30PM | LOPS2022-O99 | 20 | | **Irina A. Buyanova, Professor, Head of Unit, Linkoping University, Sweden:** Wurtzite crystalline structure enhances second-harmonic generation in GaAs nanowires | |
| 2:00 PM | 5:00 PM | LOPS2022-O100 | K | 30 | **Lingyan Shi, Discoverer, Heavy water labeling a relatively new imaging method, stimulated Raman scattering microscopy Discoverer, Golden Optical Window, UCSD Bioengineering, USA:** Super Resolution DO-SRS Multiplex Imaging for Metabolism in Aging and Diseases | |
| | 5:20 PM | LOPS2022-O203 | | | **Anthony Peters, CEO & Founder,** Iron Strike Engineering, LLC, USA : The use of space-based laser and microwave emissions technology as a possible defense mechanism for hypersonic ICBMs Heinz | |
| | 5:40 PM | LOPS2022-O203 | | | **Heidi Yu,** Biochemical Analysis of Porphyrin Molecules with Genes Used in the Photodynamic Therapy(PDT) of Neurodegenerative Diseases | |

| Duration | Type | Code | Notes |
|---|---|---|---|
| 40 | Plenary | P | Duration: 40 Min |
| 30 | Keynote | K | Duration: 30 Min |
| 25 | Invited | I | Duration: 25 Min |
| 15 | Students | S | Duration: 15 Min |
| 20 | Coffee Break | CB | Duration: 20 Min |
| 30 | Lunch Break | LB | Duration: 30 Min |
| 0 | End | e | |
| | **Start Time** | **8:00AM** | **8 0** |

LOPS ANNUAL CONFERENCES

## Saturday June 11, 2022 All the Time are in USA Eastern Standard Time (EST)

| Presenters local Time | EST Zone | Paper # | Code | Min | Session III Sensors - Presenter/Paper Title (Cont) | Chair/Session Chair |
|---|---|---|---|---|---|---|
| 5:30PM Banglore, India | 8:00AM | LOPS2022-O02 | I | 20 | **S. Asokan, IISC, India:** Fiber Bragg Grating Sensors – Some Recent Novel Applications | Nicolas Javahiraly, University of Strasbourg, France |
| 5:50 PM Uttarakhand, India | 8:20AM | LOPS2022-P04 | I | 20 | **Peter Delyett, University Trustee Chair,** Pegasus Professor, Optics & Photonics, ECE & Physics, Director, Townes Laser Institute, University of Central Florida, USA Director & Professor at Townes Laser Institute, CREOL, UCF, USA | Nicolas Javahiraly, University of Strasbourg, France |
| 6:10 PM Meghalaya, India | 8:40AM | LOPS2022-P03 | S | 15 | **Monika Nath, University of Science & Technology, Meghalaya :** Effect of phase on nonlinear susceptibility in Semiconductor Quantum Well | Nicolas Javahiraly, University of Strasbourg, France |
| 12:55 PM Birmingham, UK | 8:55AM | LOPS2022-O10 | I | 20 | **Igor Meglinski Node Leader, Biophotonics 4 Life Worldwide Consortium (BP4L), Senior Member, IEEE, Chartered Physicist, Chartered Engineer Fellow of Institute of Physics & Fellow of SPIE. Aston University, UK** | Nicolas Javahiraly, University of Strasbourg, France |
| | 9:15AM | | CB | 20 | **Coffee Break** | |
| 7:10 PM Kanpur, India | 9:35AM | LOPS2022-L08 | K | 30 | **Asima Pradhan, Indian Institute of Technology Kanpur, India:** Advance and Review for cancer on Fluro, excitation , Stokes shift , Raman and resonance Raman and time resolved spectroscopy | Nicolas Javahiraly, University of Strasbourg, France |

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|---|---|---|---|---|---|---|
| 7:30 PM Banglore, India | 10:05AM | LOPS2022-O14 | I | 20 | **Ram Mohan Vasu, IISC, India:** Diffusing Wave Spectroscopy with nonspherical particles: a framework for extracting visco-elastic spectrum from translational and rotational diffusion | Nicolas Javahiraly, University of Strasbourg, France |
| 7:50 PM Kharagpur, India | 10:25AM | LOPS2022-L02 | I | 20 | **Pranabendu Gangopadhyay, Advanced Technology Development Centre, IIT, Kharagpur, India :** Characterization techniques for fabricated step- and graded-index integrated-optic waveguides | Nicolas Javahiraly, University of Strasbourg, France |
| 8:10 PM Patna, India | 10:45AM | LOPS2022-P05 | I | 20 | **Naveen K. Nishchal, IIT, Patna, India:** Optical Techniques for Information Security. | Nicolas Javahiraly, University of Strasbourg, France |
| 11:00 AM Cambridge, USA | 11:05AM | LOPS2022-O12 | P | 40 | **Federico Capasso, Robert L. Wallace Professor of Applied Physics, Vinton Hayes Senior Research Fellow, Electrical Engineering, Harvard University School of Engineering & Applied Sciences, USA:** Structured Light and Dark by Metaoptics | Nicolas Javahiraly, University of Strasbourg, France |
| 4:40 PM Stuttgart, Germany | 11:45AM | LOPS2022-L05 | K | 30 | **Wolfgang Osten, Professor & Institute, Director Faculty of Engineering Design, Production Engineering & Automotive Engineering, Institute of Technical Optics (ITO), Germany:** 55 Years of Holographic Nondestructive Testing: What are the challenges for the future? | Nicolas Javahiraly, University of Strasbourg, France |
| | 12:15PM | | LB | 30 | **Lunch Break** | |

| Presenters local Time | EST Zone | Paper # | Code | Min | Session IV Optics - Presenter/Paper Title | Chair/Session Chair |
|---|---|---|---|---|---|---|
| 4:40 PM Southampton, UK | 12:45PM | LOPS2022-L09 | I | 20 | **Peter Horak Optoelectronics Research Centre, University of Southampton, UK:** Designing fiber-tip optical resonators for strong field enhancement | Nicolas Javahiraly, University of Strasbourg, France |
| 1:00 PM Connecticut, USA | 1:05PM | LOPS2022-L10 | I | 20 | **Niloy K.Dutta, Life Fellow: The Institute of Electrical Engineers, Fellow: Optical Society of America & International Society of Optical Engineers Member, Connecticut Academy of Science & Engineering, University of Connecticut, USA:** Optical Correlator Using Silica Waveguides | Nicolas Javahiraly, University of Strasbourg, France |

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|---|---|---|---|---|---|---|
| 10:30 AM Vancouver, Canada | 1:25PM | LOPS2022-O10 | K | 30 | **Haishan Zeng, Prism Award: (Life Sciences & Biophotonics)- (2013 SPIE), University of British Columbia, Canada:** How to perform in vivo tissue macro- and micro- Raman spectroscopy reliably and implement clinical applications? | Nicolas Javahiraly, University of Strasbourg, France |
| 7:00 PM Essen, Germany | 1:55PM | LOPS2022-S07 | K | 30 | **Heinz W. Siesler<br>EAS NIR Awardee: 1994,<br>Tomas Hirschfeld PITTCON NIR Awardee 2000,<br>Buechi NIR Award: 2003,<br>University of Duisburg-Essen, Germany,<br>Chairman, LOPS2022** | TBA |
| | 2:25PM | | CB | 20 | **Coffee Break** | |
| 10:50 AM Dubai, UAE | 2:45PM | LOPS2022-P08 | I | 20 | **Amur Margaryan<br>A.I. Alikhanyan National Science Laboratory (Yerevan Physics Institute) Foundation, Armenia :** Advanced Radio Frequency Timing Apparatus-Technique and Applications | TBA |
| 3:05 PM New Jersey, USA | 3:05PM | LOPS2022-S08 | I | 20 | **Heidi Yu,** RISE-CRG Research Group, USA: Biochemical Analysis of Porphyrin Molecules with Genes Used in the Photodynamic Therapy(PDT) of Neurodegenerative Diseases | TBA |
| 3:50 PM Orlando, USA | 3:25PM | LOPS2022-L11 | I | 20 | **Yahya Bougdid,<br>CREOL, The College of Optics and Photonics, USA** | TBA |
| 11:30 AM Morocco | 3:45PM | LOPS2022-L12 | I | 20 | **Remi Leandre,**University of Franche Comte, France: Toward A Wong-Zakai Approximation For Big Order Generators | TBA |
| Wuhan, China | 4:05PM | LOPS2022-P15 | I | 20 | **Tianliang Li :** | TBA |
| Wuhan, China | 4:25PM | LOPS2022-P09 | I | 20 | **Zebrowski:** Power-dependent kinetics of the up-conversion process in NaYF4:Er3+/Yb3+ single nanocrystals | TBA |
| | | | e | 10 | **Young Rok Choi**<br>RISE-CRG Research Group, USA<br>Stereochemical Analysis of Nanoscaled CNTs and C60 Compounds for the PDT of Immunodeficiency Disorders | |
| | | | | | **Closing Ceremony** | |

| Duration | Type | Code | Notes |
|---|---|---|---|
| Duration: 40 Min | Plenary | P | Duration: 30 Min |
| Duration: 30 Min | Keynote | K | Duration: 25 Min |
| Duration: 20 Min | Invited | I | Duration: 15 Min |
| Duration: 15 Min | Students | S | Duration: 20 Min |
| Duration: 20 Min | Coffee Break | CB | Duration: 30 Min |
| Duration: 30 Min | Lunch Break | LB | |
| | End | e | |
| | Start Time | 8:00AM | 8 0 |

LOPS ANNUAL CONFERENCES

## Sunday June 12, 2022 All the Time are in USA Eastern Standard Time (EST)

| Presenters local Time | EST Zone | Paper # | Code | Min | Session III Sensors - Presenter/Paper Title (Cont) | Chair/Session Chair |
|---|---|---|---|---|---|---|
| 8:00 AM Washington, USA | 8:00AM | LOPS2022-S04 | P | 30 | **Steven L Jacques, Bioengineering, University of Washington, USA:** Exploring the sub-diffuse scatter of photons by superficial tissue layers using polarized light. | Heinz W. Siesler, UDE, Germany |
| 1:30PM France | 8:30AM | LOPS2022-P07 | I | 20 | **Bruno Wacogne Head, Photonics for medical instrumentation FEMTO-ST Institute, France:** Real time and sampling less quality control of T-cell culture | Heinz W. Siesler, UDE, Germany |
| 1:55 PM Madras, India | 8:50AM | LOPS2022-O23 | I | 20 | **A. R. Ganesan IIT, Madras, India:** Optical Wavefront Estimation and Control for Adaptive Optics and Vision Science | Heinz W. Siesler, UDE, Germany |
| 6:40PM India | 9:10AM | LOPS2022-L15 | I | 20 | **Desta Regassa:** Nanomaterial for Lighting Application | Heinz W. Siesler, UDE, Germany |
| 7:00 PM BHU, India | 9:30AM | LOPS2022-L14 | I | 20 | **Amit Pathak, Institute of Science Banaras Hindu University (BHU), India:** IR Spectroscopy of PAH variants: Astrophysical significance | Heinz W. Siesler, UDE, Germany |
| | 9:50AM | | CB | 20 | **Lunch Break** | |
| 7:40 PMUttar Pradesh India | 10:10AM | LOPS2022-O07 | I | 20 | **Sukhdev Roy Dayalbagh Educational Institute, India:** Low-power, High-frequency, and High-fidelity Optogenetic Switching of Neurons | Heinz W. Siesler, UDE, Germany |
| 8:00PM Madras, India | 10:30AM | LOPS2022-O05 | I | 20 | **Shanti Bhattacharya IIT Madras, India:** Designing and Fabrication dielectric meta-optics for beam-shaping | Heinz W. Siesler, UDE, Germany |

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|---|---|---|---|---|---|---|
| 8:10PM Hyderabad, India | 10:50AM | LOPS2022-L06 | I | 20 | **Prof. Bishnu Pal**<br>**Mahindra University, India:** Guided Wave Mid-IR Photonics | Heinz W. Siesler, UDE, Germany |
| 10:50 AM Manhattan, USA | 11:10AM | LOPS2022-O04 | K | 30 | **Alexander G. Ramm**<br>**Kansas State University, USA:** Wave scattering by many small particles and Applications | Heinz W. Siesler, UDE, Germany |
| 9:15 AM California, USA | 11:40AM | LOPS2022-O06 | I | 20 | **Bahram Jalali,**<br>**UCLA Samueli School Of Engineering**<br>**University of California, USA:**<br>Physics-AI Symbiosis | Heinz W. Siesler, UDE, Germany |
| | 12:00PM | | LB | 30 | **Lunch Break** | |

| Presenters local Time | EST Zone | Paper # | Code | Min | Session VI Optics - Presenter/Paper Title | Chair/Session Chair |
|---|---|---|---|---|---|---|
| 6:10 PM Besancon, France | 12:30PM | LOPS2022-P12 | I | 20 | **Heidi Yu, Rise Research(CRG-NJ), USA**<br>Biochemical Analysis of Porphyrin Molecules with Genes Used in the Photodynamic Therapy(PDT) of Neurodegenerative Diseases | Heinz W. Siesler, UDE, Germany |
| 8:20 PM Jeddah, Saudi Arabia | 12:50PM | LOPS2022-P13 | I | 20 | **Mymona Mohsen Abutalib**<br>**University of Jeddah, Jeddah, Saudi Arabia:**<br>Structural, thermal, optical and conductivity studies of Co/ZnO nanoparticles doped CMC polymer for solid state battery applications | Heinz W. Siesler, UDE, Germany |
| 9:10 PM Tabriz, Iran | 1:10PM | LOPS2022-P14 | S | 15 | **Alipour, Tabriz University of Medical Sciences, Iran:** Magneto-immunoassay of cancer biomarkers: Recent progress and challenges in biomedical analysis | Heinz W. Siesler, UDE, Germany |
| 6:55 PM Berlin, Germany | 1:25PM | LOPS2022-O16 | I | 20 | **Viacheslav Artyushenko**<br>**Founder & CTO,**<br>**art photonics GmbH, Germany:** Fiber photonics for biomedical applications | Heinz W. Siesler, UDE, Germany |
| | 1:45PM | | CB | 20 | **Coffee Break** | |
| 7:35 PM Berlin , Germany | 2:05PM | LOPS2022-O17 | I | 20 | **Andrei Afanasev,**<br>**The George Washington University, USA:**<br>Structures of Optical Vortices from Sparse Arrays of Light Sources | Heinz W. Siesler, UDE, Germany |
| 7:45 PM Gottingen, Germany | 2:25PM | LOPS2022-O18 | K | 30 | **Gudrun Kalmbach**<br>**Ulm University, Germany:** Energy Spaces | Heinz W. Siesler, UDE, Germany |

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|---|---|---|---|---|---|---|
| 2:55 PM Maryland, USA | 2:55PM | LOPS2022-O19 | K | 30 | **Boris Gramatikov**<br>**Laboratory of Ophthalmic Optics**<br>**The Johns Hopkins Hospital, USA:**<br>Optimizing the performance of polarization sensitive free-space optical systems | Heinz W. Siesler, UDE, Germany |
| 2:15 PM Dallas, USA | 3:25PM | LOPS2022-O20 | I | 20 | **Miroslav Dramicanin:** Skin Cancer | Heinz W. Siesler, UDE, Germany |
| 10:45 AM California, USA | 3:45PM | LOPS2022-O21 | K | 30 | **Zhongping,**<br>**Professor, Biomedical Engineering & Director, OCT Laboratory, Irvine Beckman Laser Institute University of California, USA**<br>**:** Frontier in Optical Coherence Tomography: Doppler OCT, OCTA, and Optical Coherence Elastography | Heinz W. Siesler, UDE, Germany |
| | 4:15PM | | S | 20 | **Kevin Choi, Rise Research(CRG-NJ):** Study on the Surface Plasmon Polariton (SPP) in the Meta-materials to Improve Photon Absorptions | |
| | 4:35PM | | I | 20 | **Speaker Opportunity Available** | |
| | 4:55PM | | C | 20 | **Speaker Opportunity Available** | |
| | 5:15PM | | e | | **End** | |

*With the great support from the Organizing Committee includes The Conference Chairman and Chief Executive Committee, Excel Global Conferences organizing 2nd International Scientific Conference on Lasers, Optics, Photonics and Sensors during June 10-12, 2022 in Fort Lauderdale, Florida, USA*

# Major Scientific & Technical (Industrial) Sessions

## LASERS

- Biomedical and Therapeutic Laser
- Fiber Lasers and Applications
- High Intensity Lasers & High Field Phenomena
- Laser Applications in Life Sciences
- Laser Spectroscopy and Microscopy imaging
- OPO Lasers
- Plasma Technologies
- Quantum Electronics and Laser Science
- Quantum Information & Measurement
- Semiconductor Lasers & LEDs
- Single Photon Sources for Quantum Effects
- Structure OAM Lasers Beams
- Supercontinuum Lasers
- Tunable Lasers
- Ultrafast Picosecond/Femtosecond/ Attosecond lasers

## OPTICS

- 2PEF & 3 PEF microscope imaging
- Adaptive Optics
- Applied Industrial Optics
- Biomedical Optics spectroscopy & imaging
- Complex & Structure Light of Spin Angular Momentum (SAM) & Orbital Angular Momentum (OAM) Beams
- Computational Optical Sensing & Imaging
- Correlation for Quantum Entanglement
- Fiber Optics Technology
- Fluorescence, Raman, Absorption
- Light propagation in scattering media
- Light-Matter Interaction
- Local & Nonlocal Photon beams
- Nonlinear Crystals & Optics
- Optical Communications & Networking
- Optical Instrumentation
- Optical Materials & Devices
- Optical spectroscopy
- Optics in Astronomy & Astrophysics
- Polarization States, Polarizers & WavePlates
- Q plates & Spatial Light Modulators (SLM)
- Resonance Raman spectroscopy
- SHG, THG, SRS, 4 Wave Mixing
- Special Function optical beams – Bessel, Laguerre Gaussian, Airy & Hermite optical beams
- Spectroscopy, Imaging & Metrology
- Stimulated Raman Gain /Loss imaging
- Tractor beams and nano-rotators
- Windows in NIR & SWIR Spectral Regimes for Transmission

## PHOTONICS

- Cell phone with diagnostic capability
- Compact Photonic & Optoelectronic Materials & Devices
- Compact smart spectral photon & imagers
- Fiber Optics Devices
- Microphotonics, Nanophotonics & Optical Manipulation
- Microwave Photonics
- Molecular Photophysics and Spectroscopy
- Nonlinear Optics and Photonics
- Optical Coherence Tomography Technologies
- Organic and Bio-Photonics
- Photodetectors, Sensors and Imaging
- Photonic and Optoelectronic Materials & Devices
- Photonic and Optoelectronic Materials and Devices
- Photonics for Energy & Green Photonics
- Plasmonic Structures & Quantum Dots
- Quantum effect and entangled photons
- Silicon like Ge Si detector & Laser devices
- Ultrafast Phenomena, Attosecond Science & Technology
- Translational Optical Coherence Tomography
- Photoacoustics
- Advanced Microscopy & Spectroscopy
- Multimodal Biomedical Imaging

## SENSORS

- Applied Industrial Spectroscopy
- Biosensors and Bioelectronics
- Compact PMT, Avalanche & Pin Diodes
- Computational Optical Sensing & Imaging
- Gas Sensors Based on Conducting Metal Oxides
- Metabolism Detection for Lipids & Protein
- Mobile Sensors
- Molecular Sensors & Nanodevices
- Nano Optoelectronic Sensors and Devices
- Nanomaterials for Biosensors
- Optical Biosensors
- Optics & Photonics for Sensing the Environment
- Optofluidics, Sensors & Actuators in Microstructured Optical Fibers
- Opto-Mechanical Fiber Optic Sensors
- Photo Acoustics Sensing, Detection & Imaging
- Photodetectors in UV, Visible, NIR, SWIR & MIR
- Printed Films
- RFID & Wireless Sensors using Ultra-Wideband Technology
- Semiconductor Gas Sensors
- Semiconductor Nanomaterials for Flexible Technologies
- Sensors and Actuators
- Smart Sensors

## BIOPHOTONICS

- Bioimaging
- Biophotonics Techniques
- Cellular level diagnosis
- Clinical Biophotonics
- Diagnostic biophotonics
- Optical coherence tomography (OCT)
- Optical endoscopes
- Optical tagging
- Photobiostimulation
- Therapeutic biophotonics
- Thermal contact
- Visualization of complex structures
- Ophthalmic and biomedical optics
- Polarization optics
- Diagnostic methods and devices for ophthalmology and vision research
- Pediatric Vision Screeners
- Ophthalmology
- Vision Optics

Mark your Calendar for LOPS 2023 !

Boca Raton, Florida, USA | June 9-11 2023

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3rd International Scientific Conference and Expo on

# Lasers, Optics, Photonics, Sensors & Ultrafast Nonlinear Optics

## Organizing Committee Members