



UNITED Scientific
Group

Optics-2021

2nd International Summit on

OPTICS, PHOTONICS AND LASER TECHNOLOGIES

June 28-30, 2021 | Virtual Event

Introduction to Optics & Laser-2021

Keynote Session

Koji Sugioka

RIKEN Center for Advanced Photonics, Japan

Advanced Femtosecond Laser Micro and Nanoprocessing

Gong-Ru Lin

National Taiwan University, Taiwan

High-Power White Lighting Communication with Tri-Color R/G/B Laser Diode Mixing

Zhigang Chen

Nankai University, China and San Francisco State University, USA

Nonlinear control of topological states in photonics

Lukas.W. Snyman

UNISA, South Africa

On-Chip Micro-Biochemical Sensors with Si Avalanche based LEDs and Silicon Optical Spectrometric Detectors

Dieter Suter

TU Dortmund University, Germany

Optical Control of Spin Centers In Wide-Bandgap Semiconductors

Andrea Cusano

University of Sannio, Italy

The Technological Roadmap towards Multifunctional Plug & Play Platforms

Francesco Chiavaioli

National Research Council of Italy, Institute of Applied Physics "Nello Carrara", Italy

Lossy Mode Resonance in Fiber Optics: Applications and Perspectives

Federico Capasso

Harvard University, USA

Title to be Updated

Dennis K. Killinger

University of South Florida, USA

Lidar and Laser Remote Sensing of the Environment

Toshiki Tajima

University of California, Irvine, USA

"TeV on a Chip": Laser Wakefields in X-ray Regime

Xiaoyi Bao

University in Ottawa, Canada

Statistical Property of Random Brillouin Fiber Laser

Yongfeng Lu

University of Nebraska Lincoln, USA

Laser Vibrational Excitation of Precursor Molecules in the Growth of Pure and Doped Diamonds

Jacob Khurgin

Johns Hopkins University, USA

What is the Best Medium for Sub-Wavelength Field Enhancement?

Sujatha Ramanujan

NextCorps, NY

Title to be Updated

ROOM A Optics 2021 Session on Applied Optics and Nanophotonics

Zhengang Lu, *Harbin Institute of Technology, China*

Electromagnetic Shielding for Optical Transparent Components

Sanbin Chen, *North China research Institute of Electro-Optics, China*

Pulsed Azimuthally Polarized Beam from Passively Q-Switched Rotating Nd:YAG Disk Laser

Chiranjit Ghosh, *IIT (ISM) Dhanbad, India*

Performance Analysis Of Dispersion Compensation By Chirped FBG Cascades For 10 X 20 Gbps WDM Systems

SedongKim, *LSTME Busan Branch, South Korea*

Study on Dispersion and Thermal Conductivity For Surface Treated Mwcnts in Aqueous Solution

Shogo Nuno, *Kyoto Institute of Technology, Japan*

Rotating Tire Shape Measurement by Sampling Moiré Method

Shotaro Noda, *Kyoto Institute of Technology, Japan*

Micro-Particle Measurement Using Phase Retrieval Holography

Ning Liu, *University of Limerick, Ireland*

Active Hybrid Nanoplasmonics - Explore the Special Optical Modes at the Semiconductor-Insulator-Metal Interface

Break

Ali Khenchef, *ENSTA Bretagne (Lab-STICC), France*

Sensors and Oceanic Remote Sensing

Afaf Mahmoud Abd-Rabou, *Helwan University, Egypt*

Advanced Mathematical Model for Temperature Distributions Induced By A Pulsed Laser In Different Target Configurations Using Virtual Sources

Paolo Ansuinelli, *Delft University of Technology, Netherlands*

Regularization with A Priori Information For Ptychographic Imaging Of EUV Mask Layouts

Ngoc-Tan TRUONG, *ENSTA Bretagne (Lab-STICC), France*

Improving the Quality Of The Position Of A Receiver By Combining The Robust-Extended Kalman Filter and the Long-Short-Term Memory Technique

Victor Laborde, *Liege space center, Belgium*

Using Multilayers Diffractive Optical Elements for Dual Band Infrared Remote Sensing

Faiz Rahman, *Ohio University, USA*

Overcoming Phosphor Heating in Laser Diode-Pumped Solid-State Light Sources

Victor Contreras, *Universidad Nacional Autonoma de Mexico, Mexico*

Visualizing Standing Waves of Single-Axis Acoustic Levitators by Rainbow Schlieren Deflectometry

Alfred Puro, *EvroAkademia, Estonia*

Tensor Tomography of Residual Stress Field in Graded -Index YAG's Single Crystals

Speaker slots available

ROOM B Optics 2021 Session on Lasers in Micro, Nano and Bio Systems and Lightwave Technology

Aiko Narazaki, *NIAIST, Japan*

Laser-Induced Forward Transfer of Biomaterials Prepared by Biomimetic Process

Zuo Zhiyu, *Peking Union Medical College, China*

Blood Cancer Diagnosis Using Ensemble Learning Based on a Random Subspace Method In Laser-Induced Breakdown Spectroscopy

Sima Felix, *INFLPR - Center for Advanced Laser Technologies, Romania*

Hybrid laser Technologies for Biomimetic Material Processing

Stehan Krause, *Fraunhofer Center for Silicon Photovoltaics CSP, Germany*

Ultra-Short Laser Micro-Machining by Spatially Shaped Ps- and Fs-Pulses for Depth-Selective μ -TLM Resistivity Test Structures in TCO Contact Layers

Yuliya Kozlova, *RUDN University, Russia Federation*

Treatment of Hypersensitivity of Dentine of the Teeth with the Use of Diode Laser with Wavelength of 810 nm

Hardik Vaghasiya, *Martin-Luther-University Halle-Wittenberg, Germany*

Theoretical Study and Experimental Validation of Ultra-Short Laser Ablation Mechanism for Silicon Surface Micro-Functionalization

Romana Schirhagl, *University in Groningen, Netherlands*

Optical Nanoscale Magnetic Imaging for Detecting Stress Responses in Living Cells

Jorge Luis Dominguez Juarez, *UNAM, Mexico*

Microfabrication with Low-Average Power of Green Light to Produce PDMS Microchips

Luis Octavio Castanos Cervantes, *Tecnologico de Monterrey, Mexico*

The Quantum Rabi Model with Driving and Dissipation

Speaker slots available

Break

Session on Advances in Optics and Photonics

Dongjae Shin, *Samsung Advanced Institute of Technology, Korea*

Bulk-Silicon Photonics Targeting DRAM Applications

Xiao-Min Hu, *University of Science and Technology of China, China*

Experimental High-Dimensional Quantum Teleportation

Jagneet Kaur Anand, *University of Delhi, India*

Study of Instantaneous Poynting Vector in Optical Waveguides and Applications in Surface Plasmon Resonance Based Sensors

Eberhard E. Müller, *Technical University Berlin, Germany*

Bose-Einstein Condensation in an Ideal Photon Gas

Marc Dielen, *Morphotonics B.V., The Netherlands*

Fabrication of High Aspect Ratio Micro-Structures with Superhydrophobic and Oleophobic Properties by Using Large-Area Roll-to-Plate Nanoimprint Lithography

Gianluca Ruffato, *University of Padova, Italy*

A Novel Insight into Conformal Transformations of Structured Light Beams

Reza Heydarian, *Aalto University, Finland*

Geometrical Optics Enables Magnified Far-Field Subwavelength Imaging by a Simple Glass Microsphere

Cesar Abraham Torrico Chavez, *Universidad Catolica Boliviana, Bolivia*

Tricorn-Like Structures in an Optically Injected Semiconductor Laser

Speaker slots available

Poster Presentation

Yohsuke Tanaka, *Kyoto Institute of Technology, Japan*

Two-Wavelength Phase-Retrieval Holography

Jing Huang, *South China University of Technology, China*

Statistical Analyses of ASE Noise in Fibers

Hui Li, *Peking University, China*

The Ground-Based Verification System for Chinese Space Station Ultracold Atoms Gases

Ivan Chelibanov, *ITMO University, Russia Federation*

Photo-Induced Change Of 9,10-Diphenylanthracene Polymorphes

Khaled Hamdy Mohamed Ibrahim, *Moscow State University of Technology, Russia Federation*

Wire Electrical Discharge Machining Optically White or Transparent Al₂O₃ Ceramics Using TiO₂ Powder and Nickel Coating

Vladimir Chelibanov, *ITMO University, Russia federation*

Photo-Induced Change Of 9,10-Diphenylanthracene Polymorphes

Vladimir Chelibanov, *ITMO University, Russia federation*

SERS-Substrate based on MoS₂ on Copper Demonstrates the Dominance of the Chemical Signal Amplification Mechanism

Radi I. Khrapko, *Moscow Aviation Institute, Russian Federation*

Explanation of the Beth's Experiment

Juan Carlos Gomez Conde, *Universidad Autonoma De Puebla, Mexico*

Dynamic Self-Calibrating Phase Shifting Algorithm for Measurements Out-of-Range Module 2π

ROOM A Session on Optical Communications and Networking and Optical Materials

Pham Tien Dat, *NICT, Japan*

Optical and Radio Convergence for 5G-and-Beyond Networks

Yoshiki Nakata, *ILE, Osaka University, Japan*

Beam Shaping to Extremely Flattop Polygon by Using a Virtual Phase Grating

Putu Artawan, *Universitas Pendidikan Ganesha (Undiksha), Indonesia*

Bi-Ellipse Based Microstrip Array Antenna for Radar Communication System

Yang Yue, *Nankai University, China*

Challenge and Trend in High-Baud-Rate Coherent Optical Communication Systems

Manman Ding, *Jiangsu Normal University, China*

LD-Pumped 3 μm Er:Y2O3 Ceramic Laser at Room Temperature

Rajagopalan Krishnan, *University of the Free State, South Africa*

Nodal Aberration Theory in Non-Rotationally Asymmetric Freeform Optical System Design

Jinlong Wei, *Huawei German Research Center, Germany*

Harvesting Machine Learning for High Quality Signal Processing in Data Center Networks

Anastasiia A. Vornovskikh, *Far Eastern Federal University, Russian Federation*

Reactive SPS of SiO₂ and LiF-doped Nd³⁺:YAG Transparent Ceramics

Nataly Kozak. Yu, *IMCNASU, Ukraine*

Photostability and Beam Strength of Polyurethane Matrices for Active Element of Solid-State Dye Lasers

Jianhong Ke, *Huawei Technologies, Canada*

Performance Analysis of Transmitter One-Sample-per-Symbol Approach

Sakineh Chabi, *University of New Mexico, USA*

Two-Dimensional Silicon Carbide: The Emerging Semiconducting Material

Speaker slots available

Session on Applied Remote Sensing, Infrared Spectroscopy and Biomedical Optics

Masatoshi Kajita, *NICT, Japan*

Prospect for the Precision Measurement of Transition Frequencies of Molecular Ions

Gilad Marcus, *Hebrew University of Jerusalem, Israel*

Carrier to Envelope Phase (CEP) Stable, 2.37 μm , Ultrashort Pulses from a Hybrid Parametric - Laser Amplifier

Wai Jue Tan, *University of Exeter, UK*

Single Vs. Double Anti-Crossing Phenomena in the Strong Coupling Between Surface Plasmons and Molecular Excitons

Victor Kulikov, *University of Dayton, Ohio*

Atmospheric Turbulence Sensing with Single-Mode Fiber Transceiver and Moving Target

Carlos H. Mastrangelo, *University of Utah, UT*

Microsystems for Smart Adaptive Contact Lenses

Speaker slots available

ROOM B Optics 2021 Session on Optical Technology, Optical Engineering, Optoelectronics and Quantum Electronics

Byoung-Kwon Ahn, *Chungnam National University, South Korea*
High-Speed Optical Investigation of Air Jet in Cross Stream Flow

Xujin Yuan, *Beijing Institute of Technology, China*
Scattering Suppression Mechanism of Random type Electromagnetic Metamaterials

Daigo Oue, *Imperial College London, Uk*
Electromagnetism at Thermal Equilibrium: a Density Operator Approach

George Yury Matveev, *IT consultant, Denmark*
Quantum Elliptic Curve

Lorenzo Lombardi, *University of Pavia University of Pavia, Italy*
Absolute Distance Measurement by a Bistable Ring-Laser

Anas Ahmed Othman, *Taibah University, Al-Madinah, Saudi Arabi*
Mth Coherent State: The mix of classicality and nonclassicality

Kevin Knabe, *Vescent Photonics, USA*
Robust, Field-deployed Laser Modules For Next Generation Quantum Sensors

Speaker slots available

Optics 2021 Session on Nonlinear Optics

Sun Suwan, *Shanghai University, China*
Cavity Dissipative Structures in Optical Resonators with Transient Loss Perturbation

Xuanxi Li, *Jiangsu Normal University, China*
Wavelength Tunable Diamond Raman Laser μ 2.5 μ m

Thibaut Sylvestre, *UBFC, France*
Mid-Infrared Fiber-Based Supercontinuum Laser Sources

Felix Abt, *Orell Fussli Security Printing, Switzerland*
Laser Drilling in Banknote Production

Salman Noach, *Jerusalem College of Technology, Israel*
External Cavity Raman Laser in the SWIR Spectral Region Based on Tm:YLF / Tm:YAP and KGW Raman Crystal

Jason Fleischer, *Princeton University, NJ*
Enhanced Phase Retrieval Using Nonlinearity

Lubomir Kovachev, *Bulgarian Academy of Sciences, Bulgaria*
Influence of the Longitudinal Ponder-Motor Force on the Filamentation Process

Nikolay Korneev, *INAOE, Mexico*
The WKB Approximation for Zakharov-Shabat Scattering Problem

Carlos Wiechers, *Universidad de Guanajuato, Mexico*
Noble Metal Nanoparticles Size Distribution Reconstruction from VIS-NIR Spectra using Maximum Likelihood Method

Speaker slots available

Note: This is a tentative program for the conference and is subjected to change without any prior notice.

Thank you for the connecting !



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