

Student Paper Awards (Oral)- S1. Nanophotonic Materials and Devices

Agenda ID	Manuscript ID	Title	Presenter
2023-SAT-S0103-O001	0307	Third Harmonic Generation Enhanced by Quasi-Bound States in the Continuum in All-Dielectric Metasurfaces	Ai-Yin Liu
2023-SAT-S0103-O002	0549	Unveiling Carrier Recombination Dynamics of Near-band Edge States in 2D PEA ₂ PbBr ₄ Perovskite	Chia-Kai Lin
2023-FRI-S0102-O006	0274	High Circular Polarization Degree from Photonic Crystal Defect Cavity Lasers	Ya-Ting Tsai
2023-FRI-S0102-O001	0114	Asymmetric Vortex Beam Generation from Dielectric Janus Metasurfaces	Chang-Yi Lin
2023-FRI-S0101-O002	0221	High-Bandwidth White-Light Emitting Diodes Combining a Semipolar (20–21) Blue Micro-LED with Perovskite Quantum Dots and Organic Emitters for Solid-State Lighting and Visible Light Communication	Annada Sankar Sadhu
2023-SAT-S0104-O001	0970	Arbitrary spin-to-orbital angular momentum conversion of light in the near-infrared region	Shu-Ming Chang

Student Paper Awards (Oral)- S2. Optical Waveguides and Communications

Agenda ID	Manuscript ID	Title	Presenter
2023-FRI-S0202-O004	0218	Adiabaticity engineered silicon polarization independent directional coupler for the O-band	Yu-Fang Lo
2023-FRI-S0202-O003	0437	Silicon photonics enabled multi-function integrated optic circuit with hybrid III-V photodiode for miniaturized fiber optic gyroscope	Yu-Yun Tzeng
2023-FRI-S0201-O006	0570	High-Speed 106.25 Gb/s VCSELs for 800G Datacom and Telecom Applications	Chih-Chuan Chiu
2023-FRI-S0201-O003	0762	Optimization of Differential-Phase-Shift Quantum Key Distribution for Enhanced Key Rate	Wei-Rong Zhuo
2023-FRI-S0201-O005	0612	200 Gbit/s/ λ High Speed PAM4 Signal Processing using MZI-based Optical Neural Network (ONN)	Tun-Yao Hung

Student Paper Awards (Oral)- S3. Quantum Electronics and Laser Technology

Agenda ID	Manuscript ID	Title	Presenter
2023-FRI-S0301-0002	0476	Stability and Instability of Semiconductor Lasers at Period-One Nonlinear Dynamics	Guan-Ting Lu
2023-SAT-S0303-0002	0954	Long-Distance Time-Frequency Entanglement Distribution via Fiber Networks	Sheng-Hung Wang
2023-FRI-S0301-0001	0063	Topological edge state lasing in honeycomb membrane	Hsu-Chun Hu
2023-SAT-S0303-0003	0280	THz Free Electron Laser Using Helically Corrugated Waveguide	Chih-Ying Lien

Student Paper Awards (Oral)- S4. Optical Information Processing and Holography

Agenda ID	Manuscript ID	Title	Presenter
2023-FRI-S0401-O001	0906	Metasurface-driven Snapshot Hyperspectral Imaging through Small-data Learning Theory	Shih-Hsiu Huang
2023-FRI-S0401-O004	1054	Geometric Phase Optical Elements Using Photo-aligned Liquid Crystal Cell	Chau Nguyen Hong Minh
2023-FRI-S0402-O003	0820	Investigation of Light-Emitting Diode Irradiation on Retinal Pigment Epithelial Cells Using Digital Holographic Microscopy	Ying-Hao Wang

Student Paper Awards (Oral)- S5. Optical Design, Testing, and Engineering

Agenda ID	Manuscript ID	Title	Presenter
2023-FRI-S0501-O006	0409	Fabrication of Super-High-Period-Number Chiral Photonic Crystals via Dual-Frequency Field Assembly	Yuh-Chyi Chang
2023-FRI-S0501-O001	0761	Enhancing the Outcoupling of Near-Field Radiative Heat Transfer by Magnetic Dipole Resonance	Yu-Chen Chen
2023-FRI-S0501-O005	0886	Investigation into the Lateral Intensity of Solid-State Long-Range Spotlight	Pei-shu Hsieh
2023-FRI-S0501-O004	0884	Using Phase Shifting Fringe Projection Profilometry to Measure the Shape of Small Objects.	Po-Yuan Chen
2023-FRI-S0502-O006	0939	Development of a Wafer Warpage Measurement Technique Based on Shadow Moiré	Hao-Wen Chia
2023-FRI-S0502-O001	0070	An Immersive Head-Mounted Display using a Low Aberration Liquid Crystal Lens	Wei-Cheng Hung

Student Paper Awards (Oral)- S6. Biophotonics and Biomedical Imaging

Agenda ID	Manuscript ID	Title	Presenter
2023-FRI-S0601-0003	0461	In-vivo intelligent fluorescence sectioning using meta-varifocal endo-microscopy	Yu-Hsin Chia
2023-FRI-S0601-0004	0916	Neuronal Dynamics Analysis via Two-Photon Microscopy in Human Cerebral Organoids Associated with ADHD Disorder	Wei-Ju Chen
2023-FRI-S0601-0001	0404	Miniaturized two-photon fiber-endoscopy for mice brain imaging	Chung-En Huang
2023-FRI-S0602-0002	0357	3-D imaging of dynamic activities in human corneal epithelial cells with full-field optical coherence tomography	Yi-Chia Chen
2023-FRI-S0601-0006	0807	Full-eye imaging using swept-source OCT based on HCG-VCSEL	Jian-Zhi Wang

Student Paper Awards (Oral)- S7. Display and Solid State Lighting

Agenda ID	Manuscript ID	Title	Presenter
2023-FRI-S0701-0001	0183	A misrecognized heating effect originating seemingly from dielectric relaxation in a dual-frequency liquid crystal cell	Guan-Fu Sung
2023-FRI-S0701-0004	0788	Improving Output Power Efficiency of InGaN/GaN Green Micro-LEDs through Selective Sidewall Ion Implantation	Yuan-Chao Wang
2023-FRI-S0701-0005	0757	The effects of V-defect semipolar sidewall plane on the red InGaN MQW LEDs with random alloy fluctuation effects	Huai-Chin Huang
2023-FRI-S0702-0001	0725	Modulating the Triplet-Triplet Annihilation to Singlet Fission Phenomena by Tuning the Thickness of Rubrene-Based Sub-bandgap Devices	Tzu-Yu Huang

Student Paper Awards (Oral)- S8. Thin Film and Photovoltaic Technology

Agenda ID	Manuscript ID	Title	Presenter
2023-FRI-S0801-O004	1063	Atomic Layer Deposition Free Process for Sputtering Buffer Layer in Large Area Bifacial Perovskite Solar Cells and Tandem Solar Cells	Pi-Yun Hsiao
2023-FRI-S0801-O001	1058	Characterization of Open-Circuit Voltage Loss in Perovskite Solar Cells with Different Hole Transport Layers	Yu-Ting Chen
2023-FRI-S0801-O003	1042	Optimization of PTAA/Perovskite Interface for Efficient Inverted Perovskite Solar Cells	Yi-Tsen Chen
2023-FRI-S0802-O007	0764	Study the Scaling of AlGaN Back Barrier in GaN HEMTs	Chin-Jung Chiu
2023-SAT-S0803-O001	0756	Study of Bilayer MoS ₂ and WSe ₂ Transport Properties and Their Application in MOSFET	Hsin-Wen Huang

Student Paper Awards (Oral)- S9. Optical Sensing

Agenda ID	Manuscript ID	Title	Presenter
2023-FRI-S0901-0004	0405	Liquid-Index sensor based on a tapered-fiber Bragg grating	Cheng-En Tsai
2023-FRI-S0902-0005	0777	HIGH-PERFORMANCE NARROWBAND ORGANIC PHOTODETECTORS BASED ON SELECTIVE EXCITON ACTIVATED PHOTOMULTIPLICATION	Gajendra Suthar
2023-FRI-S0901-0005	0456	Gas Pressure Sensor Based on a Fiber Bragg Grating	Yi-Jhen Li
2023-FRI-S0902-0006	0975	Designing Ultrahigh-Figure-of-Merit Refractive Index Sensors: Leveraging Thin-Film Properties and Guided-Mode Resonance	Thanh Duy Cu

Student Paper Awards (Oral)- S10. Metaverse Photonics

Agenda ID	Manuscript ID	Title	Presenter
2023-FRI-S1001-O001	0981	Electrically tunable anisotropic optical medium for varifocus in augmented reality	Wei-Cheng Cheng

Student Paper Awards (Poster)- S1. Nanophotonic Materials and Devices

Agenda ID	Manuscript ID	Title	Presenter
2023-FRI-P0101-P010	0663	Phonon-mediated Up-conversion Photoluminescence in Two-Dimensional PEA2PbI4 Perovskite	Shao-Zhi Wu
2023-FRI-P0101-P005	0770	Precise Transfer Printing of a Photonic Crystal Nanolaser to Silicon Waveguide for Unidirectional Coupling	Jia-Wei Chen
2023-FRI-P0101-P011	0924	Reducing Photon Avalanche Excitation Threshold of Tm ³⁺ -doped NaYF ₄ Up-Conversion Nanoparticles by Resonant Waveguide Grating Structure	Thanh Thu Le Vu
2023-FRI-P0101-P001	0417	Ultrasensitive SERS Detection of Antibiotic by Silver Nanoprisms Embedded on Cuprous Oxide Microspheres	K M Arun Kumar
2023-FRI-P0101-P016	0881	High-Efficiency Photolithographic Metalenses via Intelligent Reticle Modification	I-Hsuan Chuang

Student Paper Awards (Poster)- S2. Optical Waveguides and Communications

Agenda ID	Manuscript ID	Title	Presenter
2023-FRI-P0201-P004	0784	Experimental Demonstration of Efficiency Enhanced Delta-Sigma Modulator (DSM) for Mobile Front-Haul	Yin-He Jian
2023-FRI-P0201-P003	0749	Lateral-Current-Injection III-V/SOI Electroabsorption Modulator with High-Modulation Efficiency by Selective Undercut Wet Etching	Tzu-I Hsieh
2023-FRI-P0201-P001	0015	Fiber-FSO-5G NR Wireless Converged Systems-Based 3D Floating Museum	Yan-Zhen Xu

Student Paper Awards (Poster)- S3. Quantum Electronics and Laser Technology

Agenda ID	Manuscript ID	Title	Presenter
2023-FRI-P0301-P005	0703	LED-pumped eye-safe pulse laser with an extracavity optical parametric oscillator	Yin-Pei Chen
2023-FRI-P0301-P009	0470	Bio-tissue inspired flexibility random laser from all-Inorganic Perovskite Quantum Dots	Shun wen Zheng
2023-FRI-P0301-P001	0361	Observation of shared signal wave resonance in CW intracavity quasi-phase-matching OPO with dual-wavelength pump wave input	Bao-Te Chen
2023-FRI-P0301-P007	0106	Waveguide structure optimization of InGaN-based photonic crystal surface-emitting laser	Po-Yang Chang

Student Paper Awards (Poster)- S4. Optical Information Processing and Holography

Agenda ID	Manuscript ID	Title	Presenter
2023-FRI-P0401-P004	0479	ANALYSES OF COLOR BREAKING IN HOE-BASED AR DISPLAY SYSTEM	Zih Fan Chen
2023-FRI-P0401-P002	0231	Registrable Face Recognition based on Human-incomprehensible Lensless Imaging System	Si-Wei Chen
2023-FRI-P0401-P003	1043	Deep learning in three-dimensional composite surface imaging	Jai-Yi Chen
2023-FRI-P0401-P005	0056	Light Derived Phase Modulator Based on Dye-doped Liquid Crystal Films	Fang-Yu Chang

Student Paper Awards (Poster)- S5. Optical Design, Testing, and Engineering

Agenda ID	Manuscript ID	Title	Presenter
2023-FRI-P0501-P001	0963	Exploring Asymmetric Reflection at Exceptional Points in Plasmonic Non-Hermitian Metasurfaces	Ya-Hsin Hsiao
2023-FRI-P0501-P004	0892	Diffraction Efficiency Enhancement of Volume Holographic Near-Eye-Display	Chung-Wei Lin
2023-FRI-P0501-P013	0354	Terahertz Lenses with Mask Stereolithography 3D Printing Technology	Po-Jen Yu
2023-FRI-P0501-P007	0580	Study on Beam Deflection of Non-Periodic Blazed Grating Based on Optical Phased Array for LiDAR Application	Bo-Yi Wu
2023-FRI-P0501-P011	0683	Machine Learning for Improving Image Quality Under Michelson Interferometer Vibrations	Hsiang-Hsun Tsai

Student Paper Awards (Poster)- S6. Biophotonics and Biomedical Imaging

Agenda ID	Manuscript ID	Title	Presenter
2023-FRI-P0601-P003	0400	Noninvasive Hemoglobin Measurement Device Based On Flexible Electronics	Juan-Shao Chang
2023-FRI-P0601-P001	0143	Continuous Monitoring of Blood Glucose Variation Trend Using Non-Invasive Diffuse Reflectance Optical System	Wun-Yuan Hsieh
2023-FRI-P0601-P002	0602	Development of a multifunctional catheter-based optical coherence tomography system for oral cavity and endocervical canal imaging	Meng-Shan Wu
2023-FRI-P0601-P006	0982	Enhancing Automated Skin Layer Segmentation in Optical Coherence Tomography Images Using U-Net	Cheng-An Huang
2023-FRI-P0601-P008	0258	Diffuse Reflectance Spectroscopy Based Wearable Device for Monitoring Arterial Oxygen Saturation and Hemoglobin Concentration	Jia-Cheng Li

Student Paper Awards (Poster)- S7. Display and Solid State Lighting

Agenda ID	Manuscript ID	Title	Presenter
2023-FRI-P0701-P012	0760	Simulations of the performance of different hyper triplet-triplet fusion OLEDs with carriers and exciton	Wei-Zhi Chen
2023-FRI-P0701-P013	1010	Quantum-Dot Vertical Light-Emitting Transistors based on Integration of ZnO transistor and Quantum-Dot Light-Emitting Diode	Sung-Jung Lin
2023-FRI-P0701-P014	0298	A specific charge generation layer for realizing highly efficient red tandem OLEDs	Fu-Chuan Fan
2023-FRI-P0701-P016	0488	Blue triplet-triplet annihilation organic light-emitting diode based on boron-containing anthracene derivative and bilayer structure	Chen-huang Chiu
2023-FRI-P0701-P003	0831	Electrochromic liquid crystals doped with dichroic dyes for multi-color displays	Chih-Hui Huang
2023-FRI-P0701-P001	0822	Passive liquid crystal smart window featuring selectable thermally normal- and reverse-mode operations	Zheng-Wei Lu

Student Paper Awards (Poster)- S8. Thin Film and Photovoltaic Technology

Agenda ID	Manuscript ID	Title	Presenter
2023-FRI-P0801-P002	0509	Optoelectronic Properties of (PEA) ₂ PbI ₄ Two-Dimensional Perovskite Nanoflakes	Chin-An Hsu
2023-FRI-P0801-P012	1028	Pixel-wise Color Mixing in Surface Coloring of Stainless Steel Induced by Nanosecond Pulsed Laser	Chia-Hung Chou
2023-FRI-P0801-P018	0828	Application of Nickel Cobalt Sulfide Ternary Compounds in Photorechargeable Supercapacitors	Ting-Ya Wu
2023-FRI-P0801-P013	0184	The Investigation of Semiconductor Properties of NiCrFeVCuTi High Entropy Alloy Thin Films via Surface Analysis Techniques	Chia-Jou Lin
2023-FRI-P0801-P008	0709	Enhancing Polymer Solar Cells with Intense Xenon Treatment	Pei-Chun Ku
2023-FRI-P0801-P015	1051	Polymer Dispersed Liquid Crystals with Narrow Band Infrared Reflection	LIANG ZHANG

Student Paper Awards (Poster)- S9. Optical Sensing

Agenda ID	Manuscript ID	Title	Presenter
2023-FRI-P0901-P004	1012	Phosphorylated Tau Protein Immunosensor by Enhancing Tm3+-doped Upconversion Luminescence on Low Refractive Index Resonance Waveguide Grating	Hung-Chang Kuo
2023-FRI-P0901-P002	1062	Multi-Wavelength Metalens for Compact Wavefront Sensor	Chin-Wei Chang
2023-FRI-P0901-P010	0723	High precision chaos lidar using broad-bandwidth waveforms	Ching-Kang Chen
2023-FRI-P0901-P007	0942	Piezo bender controller for precise optical dispersion compensation based on single-shot optical interferometry	Cheng-Yu Lee

Student Paper Awards (Poster)- S10. Metaverse Photonics

Agenda ID	Manuscript ID	Title	Presenter
2023-FRI-P1001-P002	0992	Electrically tunable folding optics based on nematic liquid crystal mirrors for augment reality	Hao-Hsin Huang