

OPTIC 2022 Student Paper Poster Award

S1. Nanophotonic Materials and Devices

Agenda ID	Manuscript ID	Title	Presenter	Presenter's Unit	Authors
2022-SAT-P0101-P010	0755	Analysis of Plasmonic Two-Wire Transmission-Line Chirality using Quantum Theory	Anand Hegde	National Tsing Hua University	Anand Hegde, Charles A Downing, and Chen-Bin Huang
2022-SAT-P0101-P008	0570	Highly Precise Transfer-Printed Photonic Crystal Nanolaser to SiNx Waveguide for Unidirectional Coupling	Chien-Cheng Chang	National Yang Ming Chiao Tung University	Chien-Cheng Chang, Yu-Cheng Lin, Tsan-Wen Lu, and Po-Tsung Lee
2022-SAT-P0101-P002	0536	Highly SERS-Active Au Nanostars on PMMA films by Ethanol-Assisted Photoreduction for In-Situ Detection of Antibiotics on Chicken Surface	K M Arun Kumar	National Taipei University of Technology	K M Arun Kumar, Nazar Riswana Barveen, Tzzy-Jiann Wang, and Yu-Hsu Chang
2022-SAT-P0101-P004	0153	Photothermal nonlinear Raman emission from silicon Mie resonators	Mor Pal VIKRAM	National Taiwan University	Mor Pal VIKRAM, Olesiya Pashina, Chien-Hsuan Li, Yu-Lung Tang, Mihail Petrov, Shi-Wei Chu, and Daniil Ryabov
2022-SAT-P0101-P007	0462	Antimonene-Based Sub-terahertz Acoustic Resonator: A Photoacoustic Study	Zih-Sian Yang	National Taiwan University	Zih-Sian Yang, Po-Cheng Tsai, Peng-Jui Wang, Shih-Yen Lin, and Chi-Kuang Sun

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S2. Optical Waveguides and Communications

Agenda ID	Manuscript ID	Title	Presenter	Presenter's Unit	Authors
2022-SAT-P0201-P002	0135	Image-Resolved Phase Error Correction for MZI-Based Programmable Photonic Integrated Circuits	Kuo-Wei Lee	National Tsing Hua University	Cheng-Lin Lu, Kuo-Wei Lee, Aaron Liao, Bo-Xian Ke, and Ming-Chang Lee
2022-SAT-P0201-P004	0080	Rayleigh Backscattering Mechanism Based C Band 1.46 KHz Linewidth Fiber Laser with Additional Spool of Standard Fiber	Zi Wang	National Taiwan University of Science and Technology	Zi Wang, Dong-Chang Li, Geng-Ying Chen, Shien-Kuei Liaw, Ya-Mei Yang, Bo-Heng Lee, and Hsiou-Hsin Tsai
2022-SAT-P0201-P003	0043	Phase Modulated Fiber FSO 5G Wireless Links	Hsu-Hung Huang	National Taipei University of Technology	Hsu-Hung Huang, Wei-Cheng Fan, Yu-En Peng, Ru-De Lin, and Hai-Han Lu
2022-SAT-P0201-P015	0592	Groove-first Fabrication for Fiber-to-waveguide Edge Coupling	Hung-Yu Chen	National Central University	Hung-Yu Chen, Pei-Hsun Wang, Hung-Chun Liu, Yi-Xian Zhong, and Kuan-Heng Chen

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S3. Quantum and Laser Technology

Agenda ID	Manuscript ID	Title	Presenter	Presenter's Unit	Authors
2022-SAT-P0301-P011	0737	Thin Disk Yb:YAG CW Laser	Hsing-long Kao	National Central University	Hsing-long Kao, Chuck-Kui Lee, Min-Chi Zhou, and Te-Yuan Chung
2022-SAT-P0301-P003	0312	Research On High-Efficiency Supercontinuum Generation Based On Tantalum Pentoxide Nonlinear Waveguide	Long Huang	National Sun Yat-sen University	Long Huang, Chieh Huang, Guan-Hong Lee, Yi-Jen Chiu, Min-Hsiung Shih, and Chao-Kuei Lee

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S4. Optical Information Processing and Holography

Agenda ID	Manuscript ID	Title	Presenter	Presenter's Unit	Authors
2022-SAT-P0401-P004	0748	Writing a diffractive geometric phase grating in Photo-aligned liquid crystal cell by polarization holography	Chau Minh Nguyen Hong	National Yang Ming Chiao Tung University	Chau Minh Nguyen Hong, Shiuan Huei Lin, Vera Marinova, and Ken Y. Hsu
2022-SAT-P0401-P003	0109	Industrial defect detection using generative adversarial neural network and semi-supervised learning	Yi-Hung Li	National Yung Ming Chiao Tung University	Yi-Hung Li, Ya-Ti Chang Lee, and Chung-Hao Tien
2022-SAT-P0401-P021	0845	Study of the High-Speed Imaging Communication System	Pin-Duan Huang	Notional Central University	Pin-Duan Huang, Chen-Yu Chen, Yeh-Wei Yu, Tsung-Hsun Yang, and Ching-Cherng Sun
2022-SAT-P0401-P012	0494	Signal Processing of Absolute Optical Rotary Encoder Using Real-Time Imaging System	Sheng-Yuan Zhang	National Chung Hsing University	Yu-Wei Chuang, Hsi-Fu Shih, and Sheng-Yuan Zhang
2022-SAT-P0401-P013	0794	Simulated-Annealing Binary Search for Binary Computer-Generated Holograms	Chen-Ming Tsai	Feng Chia University	Chen-Ming Tsai, and Jung-Ping Liu

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S5. Optical Design, Testing and Engineering

Agenda ID	Manuscript ID	Title	Presenter	Presenter's Unit	Authors
2022-SAT-P0501-P006	0158	Optimization of Ultra-thin Mini-LEDs array with Quantum Dots Film white light backlight module	Wei-Bo Liu	National Yang Ming Chiao Tung University	Wei-Bo Liu
2022-SAT-P0501-P012	0115	Alignment of Diffractive Optical Elements by Deep Learning	Yao-Lun Ku	National Yang Ming Chiao Tung University	Yao-Lun Ku, Ya-Ti Chang Lee, and Chung-Hao Tien
2022-SAT-P0501-P009	0027	The Periscope-Type of Mobile Phone Lens with 13 x Optical Zoom Design and Thermal Properties Analysis of Temperature -5° to 50°	Yi-Lun Su	National Central University	Yi-Lun Su, Wen-Shing Sun, Che-Chin Chen, and Shih-An Wang
2022-SAT-P0501-P008	0477	Development of a common-path speckle interferometer for displacement and angle measurements	Yueh-Jung Lee	National Taiwan University of Science and Technology	Yueh-Jung Lee, and Hung-Lin Hsieh

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S6. Biophotonics and Biomedical Imaging

Agenda ID	Manuscript ID	Title	Presenter	Presenter's Unit	Authors
2022-SAT-P0601-P002	0438	Investigating opioid-modulated cellular localization of μ -opioid and nociceptin receptors by two-photon fluorescence microscopy	Ming-Chi Chen	China Medical University, Taiwan	Ming-Chi Chen, Cynthia Wei-Sheng Lee, and Guan-Yu Zhuo
2022-SAT-P0601-P010	0756	Development of Optical Coherence Tomography Imaging Engine based on FPGA	Chang-An Shih	National Taiwan University	Chang-An Shih, Ting-Hao Tsai, Chuan-Bor Chueh, Ting-Hao Chen, and Hsiang-Chieh Lee

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S7. Display and Solid State Lighting

Agenda ID	Manuscript ID	Title	Presenter	Presenter's Unit	Authors
2022-SAT-P0701-P001	0584	Highly Efficiency Deep-Blue OLEDs based on multiple resonance thermally activated delayed fluorescence (MR-TADF) emitter	Chieh-An Chen	National Taiwan University	Chieh-An Chen, Chia-Hsun Chen, Bo-Yen Lin, Chih-pin Han, Yi-Ting Lee, Man-kit Leung, Tien-Lung Chiu, and Jiun-Haw Lee
2022-SAT-P0701-P009	0173	High Performance Poly-crystalline Silicon Thin Film Transistors by Continuous Wave Laser Crystallization for Ultra-high Resolution Display Technology	Jing-Zhong Deng	National Yang Ming Chiao Tung University	Jing-Zhong Deng, Tsung-Che Chiang, Zhen-Hao Li, Yu-Ting Tsai, and Po-Tsun Liu
2022-SAT-P0701-P002	0488	Achieving Low and Consistent Reflectance toward Various Angles by Altering the OLED Structure to Reduce Scattering	Chi-Jui Chang	National Taiwan University	Chi-Jui Chang, Chen-Han Lu, Wei-Kai Lee, Kai-Chen Lin, Chih-Kai Teng, Mei-Sheng Ma, Ching-Sheng Cheng, and Chung-Chih Wu
2022-SAT-P0701-P013	0727	Gold-Silver Core-Shell Nanoparticles for Enhancing Visible-Light Emitters: Ag@Au vs Au@Ag	Bei Liu	Chang Gung University	Bei Liu, Mochamad Januar, and Kou-Chen Liu

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S8. Thin Film and Photovoltaic Technology

Agenda ID	Manuscript ID	Title	Presenter	Presenter's Unit	Authors
2022-SAT-P0801-P001	0400	Self-adaptive transport layers for efficient inverted perovskite photovoltaics	Ching-Wei Lee	National Yang Ming Chiao Tung University	Ching-Wei Lee, and Fang-Chung Chen
2022-SAT-P0801-P004	0254	XPS Analysis of Optical Coating Adhesion among Alumina Oxide, Silver, and Silicon Dioxide	Hong-Wei Chen	Fu Jen Catholic University	Hong-Wei Chen, Hsing-Yu Wu, Chih-Hsuan Shih, Cheng-Jia Lin, Hung-Chun Lin, and Jin-Cherng Hsu
2022-SAT-P0801-P010	0368	Application of Vertical Graphene Sheets Doped Nickel Oxide in Perovskite Solar Cells	Chun-Wei Liu	National Yang Ming Chiao Tung University	Chun-Wei Liu, Zheng-Yue Jian, Mei-Hsin Chen, and Wei-Shiuan Tseng
2022-SAT-P0801-P009	0332	Luminescence of CsI and CsI:K Films under X-ray Excitation	Guan-Jen Lai	National Taipei University of Technology	Hsing-Yu Wu, Yu-Cheng Syu, Wei-Yu Chen, Guan-Jen Lai, and Jin-Cherng Hsu
2022-SAT-P0801-P012	0778	Electrical and Optical Characterization of TiO ₂ /p-Si Heterojunction Silicon Solar Cells	Yu-Hsun Cheng	National Taipei University of Technology	Yu-Hsun Cheng, Wen-Jeng Ho, Jia-Chen Zhuang, and Jheng-Jie Liu

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S9. Optical Sensing

Agenda ID	Manuscript ID	Title	Presenter	Presenter's Unit	Authors
2022-SAT-P0901-P005	0385	Laser heating fiber Michelson interferometer with silver mirror reaction	Kuei-Chun Yeh	National United University	Kuei-Chun Yeh, Hsu-Hui Chou, and Cheng-Ling Lee
2022-SAT-P0901-P006	0391	Optomechanical system for measuring depth in an object	I-Jou Lin	Feng Chia University	I-Jou Lin, Yung-Lin Chen, Zhi-Yan Lin, Tian-Le Lan, Jing-Heng Chen, and Kun-Huang Chen
2022-SAT-P0901-P009	0850	Simultaneous Temperature and Stress Sensing based on Brillouin Optical Time Domain Analysis (BOTDA)	Yan-Ching Lee	National Taiwan University of Science and Technology	Yan-Ching Lee, Zi Wang, Hiroki Kishikawa, Jingo Chen, Jiun-Yu Sung, and Shien-Kuei Liaw

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S10. Metaverse Photonics

Agenda ID	Manuscript ID	Title	Presenter	Presenter's Unit	Authors
2022-SAT-P1001-P006	0810	Image-based polarization detection and material recognition	HAO-HSIN HUANG	National Yang Ming Chiao Tung University	HAO-HSIN HUANG, WEI-HSIANG JEN, YU-JEN WANG, HUAI-AN HSIEH, YI-HSIN LIN, and PO-LUN CHEN