

MOC2019 Technical Program (Tentative)

Ver. 20190902

Oral Sessions

November 17 (Sun)

AM	Session MS. MOC Science School in Toyama "Light and Laser" (in Japanese)	10:00-12:15		
MS-1	10:00-10:30	Sending by Light, Observing by Laser - From Internet to Smartphones-	Kenichi Iga	Tokyo Institute of Technology
MS-2	10:30-11:00	Organic Light Emitting Diodes - For New Era Displays -	Hiroyuki Okada	University of Toyama
MS-3	11:15-12:15	Observing Gravitational Waves with Laser Interferometers	Takaaki Kajita	Institute for Cosmic Ray Research (ICRR), The University
PM	Session SS. Special Symposium "Sensing by Light"	13:30-17:00		
SS-0	13:30-13:45	Introductory Talk	Kenichi Iga	Tokyo Institute of Technology
SS-1	13:45-14:30	Light for Detecting Neutrinos and Gravitational Waves	Takaaki Kajita	Institute for Cosmic Ray Research (ICRR), The University
SS-2	14:30-15:15	LIDAR: A Key to AI-Mobile	Toshihiko Baba	Yokohama National University
SS-3	15:30-16:15	VCSEL Sensing for 3D Face Recognition	Connie J. Chang-Hasnain	University of California, Berkeley
SS-4	16:15-17:00	Biophotonic Imaging and Sensing	Ken-Tye Yong	Nanyang Technological University

November 18 (Mon)

AM	Session PL. Plenary Session	9:15-12:00		
PL-1	9:15-10:00	A Renaissance in Brillouin Photonics for On-Chip Signal Processing and Sensing	Benjamin J. Eggleton	The University of Sydney Nano Institute
PL-2	10:00-10:45	Innovations in Optics for the Connected World	Waguih S. Ishak	Corning Incorporated
PL-3	11:00-11:45	Progress in Photonic-Crystal Lasers	Susumu Noda	Kyoto University
PM1	Session A. Optical Communications	13:30-15:15		
A-1	13:30-14:00	High-Speed Electro-Optics Based on Lithium Niobate Nanophotonics (Invited)	Cheng Wang	City University of Hong Kong
A-2	14:00-14:15	High-Extinction-Ratio Multiple Quantum Well Modulator Based on Multimode Interference Waveguide	Kohei Yamashina	Yokohama National University
A-3	14:15-14:30	Mode detection of vector beams by use of crossed-fork-shaped polarization grating fabricated by photoalignment of photo-crosslinkable polymer liquid	Moritsugu Sakamoto	Nagaoka University of Technology
A-4	14:30-14:45	Secure Digital-domain Symbol Masking Using Four-level Phase-shift-based two-bit Block-ciphering for Coherent QPSK Transmission	Takahiro Kodama	Kagawa University
A-5	14:45-15:00	An Experimental Study of Harmonic Optical Quantizer	Kosuke Kondo	Yamanashi University
A-6	15:00-15:15	A Novel Spot-Size Converter with Asymmetric Taper for Deep-Ridge Waveguide Devices	Takuo Hiratani	Sumitomo Electric Industries, Ltd.
PM2	Session B. New Materials	15:30-17:15		
B-1	15:30-16:00	Topological Insulator Laser (Invited)	Mordecai Moti Segev	Technion
B-2	16:00-16:15	Cross-stacking of Guided-mode Resonance Gratings for Polarization-independent Flat-top Filtering	Keisuke Kawanishi	Kyoto Institute of Technology
B-3	16:15-16:30	Plasmonic nanolasers based on graphene-insulator-metal platform	Heng Li	National Chiao Tung University
B-4	16:30-16:45	100 °C deposited transparent silicon nitride film for O-band photonic	Rai Kou	AIST
B-5	16:45-17:15	Extreme Nonlinear Optics in Epsilon-near-zero Materials (Invited)	Yuanmu Yang	Tsinghua University

November 19 (Tue)

AM1	Session C. Silicon Photonics	9:00-10:45		
C-1	9:00-9:15	Cross-Polarization Effects in Sheared Two-Dimensional Grating Couplers for Silicon Photonics	Galina Georgieva	Technische Universitaet Berlin
C-2	9:15-9:30	Beam Waist Controlled Vertical Optical Path Conversion Using Integrated Curved Micro Mirror for Silicon Photonics	Akihiro Noriki	National Institute of Advanced Industrial Science and Technology (AIST)
C-3	9:30-9:45	Reflective Silicon Arrayed Waveguide Grating using One-Dimensional Photonic Crystal Reflector	Hideaki Okayama	Oki Electric Industry Co. Ltd. PETRA
C-4	9:45-10:15	Heterogeneous Integration in Silicon Photonics through Micro-Transfer-Printing (Invited)	Jing Zhang	Ghent University
C-5	10:15-10:45	Novel Si Photonic Waveguides and their Application to Optical Modulators (Invited)	Shinichi Saito	University of Southampton
AM2	Session D. Microoptics for Imaging (1)	11:00-12:45		
D-1	11:00-11:30	Skin cancer detection using cellular resolution optical coherence tomography (Invited)	Sheng-Lung Huang	National Taiwan University
D-2	11:30-11:45	Investigation of excitation beam modulation using azimuthal polarization to improve STED resolution	Geon Lim	Yonsei University
D-3	11:45-12:00	Thin Multi-Aperture Microscope	Stephan Schacke	Fraunhofer IOF
D-4	12:00-12:15	Glass 3D printing for ultra-miniaturized endoscopic optical systems	Simon Kretschmer	University of Freiburg
D-5	12:15-12:30	Waveguide Integrated Organic Laser Source for Lab-on-Chip Applications	Marko Cehovski	TU Braunschweig
D-6	12:30-12:45	Snapshot-type CCD spectrometer utilizing distributed passband-type multichannel photonic crystal wavelength filter array	Yasuo Ohtera	Toyama Prefectural University
PM1	Session E. Microoptics for Imaging (2)	13:45-15:15		
E-1	13:45-14:00	Ultra-compact 3D measurement module using silica-based PLC	Satomi Katayose	NTT Corporation
E-2	14:00-14:15	Wide-range Structured-Light Sensing Based on Non-mechanical VCSEL Beam Scanner	Ruixiao Li	Tokyo Institute of Technology
E-3	14:15-14:30	Time of Flight 3D Imaging using VCSEL Beam Scanner	Ibuki Fujioka	Tokyo Institute of Technology
E-4	14:30-14:45	Monolithic Integration of MEMS Tunable VCSEL and Beam Deflector	Hiroki Ota	Tokyo Institute of Technology
E-5	14:45-15:00	Tunable optical filters using artificial muscles	Jasleen Kaur Lall	University of Freiburg
E-6	15:00-15:15	Jacobi-Fourier phase masks to increase performance of wavefront coded optical systems for random or varying aberrations alleviation	Miguel Olivera-Angeles	University of Santiago de Compostela, Spain

November 20 (Wed)

AM1	Session F. Novel Applications	9:00-10:45		
F-1	9:00-9:15	Polarization control of GaN-based micro-cavity lasers with top high-contrast grating reflectors	Tsu-Chi Chang	National Chiao Tung University
F-2	9:15-9:30	Speckle measurement for light diffusion fiber	Keizo Ochi	Osaka University
F-3	9:30-9:45	Characterization and Optimization of Fly-eye Lens System in Optical Wireless Power Transmission	Yuki Katsuta	FIRST, Tokyo Institute of Technology
F-4	9:45-10:00	Infrared LED Marker for Target Recognition in Optical Wireless Power Transmission to Moving Object at Dark Environment Condition	Alexander William Setiawan Putra	Kanazawa University
F-5	10:00-10:15	High-voltage CMOS photovoltaic module with Schottky bypass diodes	Jian-Fu Liao	National Sun Yat-sen University
F-6	10:15-10:45	Green VCSELs Based on Nitride Semiconductors (Invited)	Bao-Ping Zhang	Xiamen University
AM2	Session G. Lasers	11:00-12:45		
G-1	11:00-11:30	High Speed VCSELs and Co-Packaging for Short Reach Communication within Cloud and High Performance Computing (Invited)	Daniel Kuchta	IBM
G-2	11:30-11:45	High speed modulation single mode 850 nm DTCC-VCSEL	H.R Ibrahim	Tokyo Institute of Technology
G-3	11:45-12:00	Enhancement of Modulation Responses of Directly Modulated Lasers with Passive Feedback and Partially Corrugated Grating	Siti Sulikhah	National Taiwan University of Science and Technology
G-4	12:00-12:15	Observation of 60 GHz and 20 GHz Multiple Photon-Photon Resonances Using Active Multimode Interferometer Laser Diodes	Shingo Murakami	Kyushu University
G-5	12:15-12:30	Quantum dot-based optically pumped VCSELs with high-contrast periodic gratings	Tibor Fordos	University of Sheffield
G-6	12:30-12:45	Local tuning of transfer-printed quantum-dot single-photon sources on a CMOS silicon chip	Ryota Katsumi	University of Tokyo
PM1	Session H. Microoptics for Sensing	13:45-15:30		
H-1	13:45-14:15	Micro- and Nano-Structures for High-End Optics (Invited)	Uwe Zeitner	Fraunhofer IOF
H-2	14:15-14:30	Performance Improvement of Phase Modulation Scheme in Brillouin Optical Correlation Domain Reflectometry	Kota Uyama	The University of Tokyo
H-3	14:30-14:45	Miniature Integrated Spectrometer Array	Norbert Danz	Fraunhofer IOF
H-4	14:45-15:00	Effective Localization of Brillouin Dynamic Grating for Distributed Fiber Sensing by Intensity-Modulated Correlation-Domain Technique	Youhei Okawa	Toyota Technological Institute
H-5	15:00-15:30	Perforated Micro-ring Resonators for Enhanced Sensing (Invited)	Raimondas Petruskevicius	Center for Physical Sciences and Technology, Lithuania

Presentation No.	Paper Title	First Author	Affiliation
P-1	Simultaneous Cross-Sectional Velocity Distribution Measurements Using Laser Doppler Velocimeter Employing 7 x 8 Spatial Encoding	Mayu Yukinari	Kagawa University
P-2	Snapshot-type compact multispectral imager utilizing photonic crystal multi-patterned spectral filter array	Yasuo Ohtera	Toyama Prefectural University
P-3	Optical Frequency Comb Generation from a Bismuth-Based Fiber Laser	Yutaka Fukuchi	Tokyo University of Science
P-4	A Cluster of Grating Couplers for Input Coupling of Mixed Wavefronts	Akira Shimatani	Kyoto Institute of Technology
P-5	Wavelength Tunable filter with Curved Directional Coupler	Yoshiaki Ito	Waseda University
P-6	Optical Simulation of Diffraction Characteristics of Eccentric Fresnel Lenses for a Compact Spectrometer	Kenya Tanaka	Kyoto University
P-7	Reduction of optical background noise in BOCDA distributed strain measurement technology by synthesizing frequency modulation waveform of light source	Naoki Ito	Toyota Technological Institute
P-8	Bistable tuning operation in an Nb ₂ O ₅ DBR resonator with ferroelectric liquid crystal cladding	Yoshiki Hayama	Kanagawa Institute of Technology
P-9	Polymer interconnection waveguide for multi-core fibers using 45 ° mirror and self-formation lens	Daisuke Hikima	Waseda University
P-10	Simultaneous QAM Conversion of CATV Multi-Channel Signals by Using External Optical Modulators	Junji Murotani	University of Toyama
P-11	Fine Porous Structures Fabricated from Poly(vinyl alcohol)-Coated Polystyrene Templates for Functional Biosensing Chips	Akira Emoto	Institute of Post-LED Photonics (pLED)
P-12	Bandwidth Improvement of Step-index Multimode Fiber Using Variable Mode Scramble Device	Koji Horiguchi	Adamant Namiki Precision Jewel Co., Ltd.
P-13	High output power GaN-based green resonant-cavity light emitting diodes with trapezoidal quantum wells	Heng Li	National Chiao Tung University
P-14	Compact fluorescence endoscope with speckle-generating fiber probe	Takaichi Okubo	Tohoku University
P-15	Modulation Format Conversion Between QPSK, OOK and 8QAM Using Optical Nonlinear Effects	Hiroki Kishikawa	Tokushima University
P-16	A random laser with tunable threshold by bending curvature	Ting Wei Yeh	National Taiwan Normal University
P-17	Design of High-Order Microring Resonator-Based Chebyshev Wavelength Filter Using Digital Filter Design Method	Taro Arakawa	Yokohama National University
P-18	Computational Ghost Image via Controlling Pseudothermal Light Source	Xuan-En Hong	National Chiao Tung University
P-19	Athermal Silicon Ring Resonators with TiO ₂ Hybrid-Polymer Claddings	Tomohiro Kita	Waseda University
P-20	High-Speed Wide-Range Wavelength Switching for Tunable Distributed Amplification (TDA-) DFB Laser Based on Nonlinear Model	Yuri Niiya	Kyushu University
P-21	Investigation on Ultra-Low Voltage Quantum Well Optical Modulator for Optical Interconnection for Superconducting Integrated Circuits	Taro Arakawa	Yokohama National University
P-22	Nano-Second Spectrometry by the Use of a Spinning Polygon Mirror	Yusuke Itai	Ryukoku University
P-23	Cobalt Ferrite Films Deposited on Silicon with Magnesium Oxide Buffer Layer for Silicon Photonics Magneto-optic Devices	Mario Alberto Serrano-Nunez	Tokyo Institute of Technology
P-24	High Speed and Low Power Consumption, Thermo-optic Phase Shifter	Masaki Okamoto	Waseda University
P-25	Real-Time Displacement Measurement Based on Intensity Correlation Between Reflected Probe Light and Phase Modulated Signal	Naoki Kashiwagura	Tokyo University of Agriculture and Technology
P-26	COMPACT AND HIGH SENSITIVE SWGMS BRAGG GRATING ON SOI PLATFORM FOR REFRACTIVE INDEX SENSING	Siim Heinsalu	Waseda University
P-27	Rapid thickness and optoelectronic properties characterization of few-layer 2D materials based on hyperspectral microscopy	Yu-Kai Wang	National Changhua University of Education
P-28	Suppression of fiber fuse initiation by amplitude modulation of input light	Shota Ishikawa	Kitami Institute of Technology
P-29	Optimized LED-based Optical Wireless Power Transmission System Configuration for Compact IoT	YUHUAN ZHOU	FIRST, IIR, Tokyo Institute of Technology
P-30	Dopant dependence of fiber fuse propagation threshold	Kosuke Hamatani	Kitami Institute of Technology
P-31	Incident-Angle-Dependence-Relaxed Polarization Grating formed using Polymer Liquid Crystal Exhibiting Biaxial Optical Anisotropy	Ryusei Momosaki	Nagaoka University of Technology
P-32	Light-Induced Self-Written Optical Waveguide Fabrication by Near Infrared Continuous Wave Laser Light with Microwatt Power	Hidetaka Terasawa	Utsunomiya University
P-33	Optical Light Filter for Infrared Region Formed by Polymer Stabilized Cholesteric Liquid Crystals	Akifumi Ogiwara	Kobe City College of Technology
P-34	Numerical and experimental analysis of power generation characteristics in beam direction control of optical wireless power transmission with	Jing Tang	Tokyo Institute of Technology
P-35	A Broadband PLC-type Mode Converter Designed by Wavefront Matching Method	Motoki Shirata	Graduate School of Information Science and Technology, Hokkaido University
P-36	Hybrid Refraction-Diffraction Optical Element of Side-Absorption Concentrated Array System for Photovoltaic-Thermal Hybrid Applications	Jyh-Rou Sze	Taiwan Instrument Research Institute, National Applied Research Laboratories.
P-37	Wavelength Characteristics of a Silicon Waveguide Mach-Zehnder Interferometer having a Ce:YIG cladding	Katsumi Nakatsuhara	Kanagawa Institute of Technology
P-38	Electrochemical Synthesis of Transition Metal Oxides and Polymer Layers for OPV Fabrication	Ouacef Charfi	TU Braunschweig
P-39	Design of Free-Form Light Intensity Distribution Control Element for High-Brightness Projectors Using Solid-State Light Sources	Taro Tsutsumi	Fukuoka Institute of Technology
P-40	Light Receiving Characteristics from Air to Underwater Optical Wireless Power Transmission	Jiaying Li	FIRST, IIR, Tokyo Institute of Technology
P-41	Cooperative Control of Injection Current and Temperature at DFB-LD for High-speed High-Reliability Wavelength Switching	Shunta Kono	Kyushu University
P-42	Fundamental Study of Saturation Power on Quantum Dot Semiconductor Optical Amplifier (SOA) under high temperature (85 °C)	Ryota Kuwahata	Kyushu University
P-43	Grating Coupler Biosensor with a Low Refractive Index Buffer Layer for Bulk and Surface Sensitivity Enhancements	Hsun-Yuan Li	Chung Cheng University
P-44	Design of Chirped Focusing Grating Coupler in Nb ₂ O ₅ -based Integrated Probe for Laser Doppler Cross-sectional Velocity Distribution	Shuto Doi	Kagawa University
P-45	Efficient decoding method for M-ary OAM shift keying in FSO link	Munkhbayar Adiya	Tokushima University

Presentation No.	Paper Title	First Author	Affiliation
P-46	Multiple Aerial Imaging by Use of Infinity Mirror and Oblique Retro-	Kazunari Chiba	Utsunomiya University
P-47	Multipoint Sensing Measurement using Optical Fiber Refractive Index Sensors Driven by Integrable Tunable Laser Assembly	Takahito Mukai	Graduate School of Natural Science and Technology, Okayama University
P-48	Nonreciprocity Enhancement of Graphene-on-Si Waveguide using One-Dimensional Photonic Crystal	Kodai nakamura	Hokkaido University
P-49	Analysis of Fiber Based Emitting Head for Optical Wireless Communication	Yi-Lin Yu	Department of Optical Science and Technology, Tokushima University
P-50	Improved Light Extraction of Organic Light Emission Diodes With ZnO-Nanorod Structure	Hiroyuki Okada	University of Toyama
P-51	Three-Dimensional Bending Measurement Using Multicore Fiber Bragg Grating and Two-Photon Absorption Process in Si-APD	Tetsuya Abe	Tokyo University of Agriculture and Technology
P-52	Adaptive Compensation for Atmospheric Turbulence in Orbital Angular Momentum Free Space Optical Transmission System	Haruya Kishimoto	Tokushima University
P-53	Improving the quality of decrypted signal in an encryption system for secure free-space optical communication	Yu Sato	Osaka Prefecture University
P-54	A Self-compensating Grating Bio-sensing System for the Detection of C-Reactive Protein	Hsun-Yuan Li	Chung Cheng University
P-55	A Low Cost Interrogation Method for Strain Monitoring in Bridge Beams	Sravanthi Alamandala	National Institute of Technology Warangal
P-56	Application of Scattering Characteristics to Module with Filters on Solar Cell for Improvement of OWPT Equipment Appearance	Yu Liu	FIRST, Tokyo Institute of Technology
P-57	Transmission Performance of 16QAM Signal Interleaved with Amplified Reference Light	Yasuhiro Okamura	Tokushima University
P-58	Manipulation of received beam for free-space optical communications of intermediate distance	Masatsuna Yamazaki	Tokai University
P-59	Biosensing Resolution Enhancement on Optical Low Coherence Interferometry through Stepper Motor Stage	Shih-Hsiang Hsu	National Taiwan University of Science and Technology
P-60	Widening the Polarization Conversion Properties of an L-figured Si-wire Waveguide	Yuto Nakagawa	HOSEI University
P-61	Consideration of All-Optical Modulation Format Conversion From BPSK to QPSK in Free-Space Communication Using OAM Beam	Kohshi Fujiwara	Tokushima University
P-62	Fiber fuse terminator consisting of a step-index multimode fiber spliced with SMFs	Sogo Furuya	Kitami Institute of Technology
P-63	Aerial Display on a Clear Sphere with Aerial Imaging by Retro-Reflection	kengo Fujii	Utsunomiya University
P-64	Simulation of microoptics under inhomogeneous illumination: Sinusoidal Phase Grating under Gaussian Beam Illumination	maryam Yousefi	PhD student
P-65	Shape measurement using digital holography with a close set of two wavelenghts	Hiroyuki Ishigaki	CKD Corporation / Utsunomiya University
P-66	Asynchronous DPSK-OCDM-based Optical Access System Using Time-extended Multi-level QAM-code	Takahiro Kodama	Kagawa University
P-67	Influence of the $f/\#$ in wavefront coding with Jacobi Fourier phase masks	Eva Acosta	University of Santiago de Compostela
P-68	Patterned emission of organic light emitting diodes with laser irradiation	Ryota Sugimoto	University of Toyama
P-69	Nested Mach-Zehnder Interferometer Optical Switch with Low Crosstalk	Toshio Watanabe	Kagoshima University
P-70	Fabry-Perot Optical Fiber Temperature Sensor using Graded-Index Fiber for Cryotherapy	Hideki Fukano	Okayama University
P-71	Effect of radiation dose of Gamma-Ray irradiation on volume gratings using liquid crystal composites	Akifumi Ogiwara	Kobe City College of Technology
P-72	Photophysical Properties of Ru(II) Complexes Encapsulated into Metal-Organic Frameworks	Seong Huh	Hankuk University of Foreign Studies
P-73	White-light Confocal Spectroscopy for Measuring Reflectivity of Micro-optics	Chun-Jen Weng	Taiwan Instrument Research Institute, National Applied Research Laboratories
P-74	Effects of Core Aspect-ratio in Bent Buried Si-wire Waveguides	Takehiro Ishiguro	HOSEI University
P-75	Influence of Phase Constant Difference between Dispersive Elements in Difference-Frequency Generation Based Optical-Phase-Conjugation	Yasuhiro Okamura	Tokushima University
P-76	Controlled Generation of Isolated C-points in Few-mode Optical Fiber	Hari Krishna C	National Institute of Technology Warangal
P-77	Wave Plate Fabrication Using Surface Plasmon Polariton in a Ag Wire Grid Structure	Atsushi Motogaito	Mie University
P-78	Luminescence Investigation of Magnesium Stannate Phosphors Films	Mu-Tsun Tsai	National Formosa University
P-79	Plano-concave mini-lens array for plenoptic imaging applications	Alessandro Grosso	Datalogic IP Tech Srl
P-80	The Surface-Enhanced Raman Spectroscopy of Rhodamine 6G on a nanopillar array	Zixian Wang	Dalian University of technology
P-81	Studies on fiber coupling characteristics of received beam by transmission-type holographic optical element for free-space optical	Hiroki Yamashita	Tokai University
P-82	Study of Plasmonic Nanolasers with Graphene-Metal Interaction	Yi-Cheng Chung	National Taiwan Ocean University
P-83	Dynamics of a highly sensitive Erbium-doped Fabry-Perot Fiber (EDFBF) Laser Sensor under pump modulation	Chang Hong Pua	Universiti Tunku Abdul Rahman
P-84	The mechanism of H ₂ plasma in III-nitride low-temperature epitaxy	Zixuan Zhang	Tsinghua University
P-85	Adjoint-based Optimization for Diffractive Beam-Splitters	DONG CHEON KIM	EPFL
P-86	Temperature Effects on Dispersion Tailoring of Slow Light Engineered Photonic Crystal Waveguide	DurgaRama Vadapalli	NATIONAL INSTITUTE OF TECHNOLOGY-WARANGAL (INDIA)
P-87	Feasibility Study of Scanning Photocurrent Microscopy in Ultra-Thin Silicon Nanowire Ohmic-Contact Devices	Cheng-Hao Chu	National Taiwan University
P-88	Subnanoscale Localization of Rare-Earth-Ion in Doped Crystal via Electromagnetically Induced Transparency	ONKAR VERMA	National Institute of Technology Warangal
P-89	Optical Response Measurements of R/G/B Mini-LEDs with Short Pulse Voltage	Shu Chun Liao	Industrial Technology Research Institute
P-90	All-fiber imaging system for ultra-thin flexible endoscope based on compressed image reconstruction	Tatsuya Kubota	Graduate School of Engineering Tohoku University
P-91	Inscription and Optimization of Fiber-Optic Long Period Gratings Using Electric Arc Discharge	KOUSTAV DEY	NATIONAL INSTITUTE OF TECHNOLOGY, WARANGAL.
P-92	Analysis on Lithium Niobate on Insulator Rib-Type Photonic Wire Waveguide	Edwin Pun	City University of Hong Kong