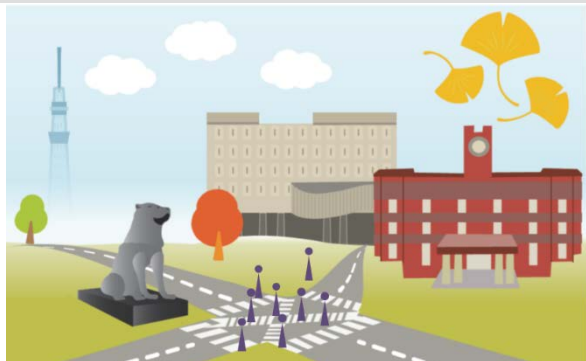


ADVANCE PROGRAM



MOC2017

22nd MICROOPTICS CONFERENCE

<http://www.moc2017.com/>

*Sponsored by the Japan Society of Applied Physics (JSAP)
Organized by Microoptics Group, JSAP*



Co-sponsored by

- Institute of Industrial Science, The University of Tokyo
- Research Center for Advanced Science and Technology, The University of Tokyo

Technically co-sponsored by

- IEEE Photonics Society

In cooperation with

- The Optical Society
- IEEE Photonics Society Japan Chapter
- IEICE Electronics Society
- Optical Society of Japan
- Optical Society of Korea
- Taiwan Photonics Society
- The Chemical Society of Japan
- The Society of Polymer Science, Japan
- The Laser Society of Japan
- Optoelectronics Industry and Technology Development Association
- Japan Optomechatronics Association
- JSPS / The 125th Committee
- JSPS / The 130th Committee

Nov. 19 (Sun.) - Nov. 22 (Wed.), 2017
Institute of Industrial Science,
The University of Tokyo, Komaba, Tokyo

MOC2017 Agenda At-A-Glance

November 19 (Sun.)		November 20 (Mon.)		
8:30		8:30	Registration Open	
9:00		9:00	Opening Remarks	
9:30		9:30	Plenary	
10:00		10:00		
10:30		10:30		
11:00		11:00		
11:30		11:30		
12:00	Registration Open	12:00	Lunch	
12:30		12:30		
13:00		13:00		
13:30		13:30	Session A: Optical Communication and Modulation	
14:00	30th Anniversary Symposium	14:00		
14:30		14:30		
15:00		15:00		Break
15:30		15:30		Session B: Manipulation and Processing of Light
16:00		16:00		
16:30		16:30		
17:00		Get Together	17:00	Break (Light meal)
17:30	17:30		Special Session Vehicle Microoptics for Autonomous Driving	
18:00	18:00			
18:30	18:30			
19:00	19:00			
19:30		19:30		
20:00		20:00		
20:30		20:30		

MOC2017 Agenda At-A-Glance

November 21 (Tue.)		November 22 (Wed.)	
8:30	Registration Open	8:30	Registration Open
9:00	Session C: Lasers and Light Control	9:00	Session F: Optical Materials and Applications
9:30		9:30	
10:00		10:00	
10:30	Break	10:30	Break
11:00	Session D: Optical Fiber and Waveguide Devices	11:00	Session G: Microoptics for Imaging
11:30		11:30	
12:00		12:00	
12:30		12:30	
	Break		
13:00	Poster Session (Light meal and coffee inclusive)	13:00	Lunch
13:30		13:30	Session H: Microoptics for Sensing
14:00		14:00	
14:30		14:30	
15:00	Break	15:00	
15:30	Session E: Photonic Crystals and Nanostructure	15:30	Break
16:00		16:00	Post Deadline Session
16:30		16:30	Awards & Closing
17:00	Break	17:00	
17:30	Microconcert	17:30	
18:00		18:00	
18:30	Conference Party	18:30	
19:00		19:00	
19:30		19:30	
20:00		20:00	
20:30		20:30	

Technical Program

The 22nd MICROOPTICS CONFERENCE (MOC2017) will be held at INSTITUTE of INDUSTRIAL SCIENCE, THE UNIVERSITY of TOKYO, Tokyo, Japan on November 19 - November 22, 2017. This conference is sponsored by the Japan Society of Applied Physics (JSAP) and organized by Microoptics Group, JSAP and in cooperation with several academic societies and associations. The MOC will mark its 30th anniversary in 2017.

The MOC2017 is intended to provide a central forum for an update and review of scientific and technical information covering a wide range of microoptics field from fundamental researches to systems and applications.

The latest information will be available on the following web site:

<http://www.moc2017.com/>

30th Anniversary Symposium

The MOC's 30-year anniversary symposium will be held in ENEOS Hall in Building "3-s" on Sunday, 19 November. The following speakers will overview the fundamentals of each field and the history.

"30 years of Microoptics conference"

Hirochika Nakajima, *Waseda University*

"40 years of VCSEL photonics"

Kenichi Iga, *Tokyo Institute of Technology*

"50 years of fibers and integrated optics"

Yasuo Kokubun, *Yokohama National University*

"Photonics polymers for fiber and display"

Yasuhiro Koike, *Keio University*

Plenary Session

Plenary session will be held in Convention Hall in Building "An" on Monday, 20 November. The following papers are invited as the plenary talks.

"Progress in quantum dots for advanced photonics"

Yasuhiko Arakawa, *University of Tokyo*

"The multifaceted world of photonic crystal fibres"

Philip Russell, *Max Planck Institute for the Science of Light*

"Advances in nanophotonic MEMS"

Ming C. Wu, *University of California, Berkeley*

"VCSEL technology for imaging and sensor systems applications"

Karl Joachim Ebeling, *Universität Ulm*

Special Session

A special session will be held on Monday, 20 November, which focuses on "**Vehicle Microoptics for Autonomous Driving**".

Organizers

M. Kagami, *Toyota Central R&D Labs.*
O. Sugihara, *Utsunomiya Univ.*

"Optical communications for next generation automotive networks"

Oscar Ciordia, *KDPOF*

"Monolithic optical phased arrays in silicon"

Hossein Hashemi, *University of Southern California*

"Laser rangefinders for planetary exploration"

Takehide Mizuno, *JAXA*

"Fiber optic interconnection devices for in-vehicle communications"

Shigeru Kobayashi and Carlos Almeida, *TE Connectivity*

Oral Presentation

Oral session is to be held in Convention Hall in Building "An". The presentation time (including discussion) will be 30 minutes for invited papers, 15 minutes for regular papers, and 10 minutes for post deadline papers. All the speakers are requested to present the paper with a data projector. Prior to the starting time of the session, the speakers are asked to contact the session chairs and to confirm the connection between their computer and the projector.

Poster Session

Poster session will be held at 2F-Foyer in Building "An" in the afternoon on Tuesday, 21 November. The poster session is open during 12:45-15:15, including posting, clearing up, lunch and coffee break. For the convenience of the participants, the presentation core time when the authors must stand will be divided into two periods. The first period (13:00-14:00) is for authors with the paper of odd-number (P1, P3, ...) and the second period (14:00-15:00) is for authors with the paper of even-number (P2, P4, ...). Authors should stay in the vicinity of the bulletin board for discussion. Each author is requested to display his/her poster on a 90 cm wide and 195 cm high bulletin board. Recommended poster size is A0 (841 × 1189 mm²).

Post Deadline Papers

A limited number of post deadline papers will be accepted for presentation at post deadline sessions. Latest significant results obtained after the regular deadline are most welcome.

Post deadline papers should be submitted electronically. A detailed instruction and the paper template is available on the following Web site:

<http://www.moc2017.com/>

The deadline for submission is Noon, October 17 (Tue.), 2017 (JST).

JJAP Special Issue

A special issue on Microoptics of the JJAP, which is an international journal published by the Japan Society of Applied Physics, is scheduled for publication in Aug. 2018. Authors of papers for MOC2017 are encouraged to submit original papers to the special issue. The instructions for preparation of manuscript will be given to the authors. The deadline for submission of manuscripts is 15 January, 2018

. Submitted papers will be reviewed based on the JJAP standard.

Paper Awards

Some excellent contributed papers will be awarded the Best Paper Award. Moreover, some students who presented excellent papers will be awarded the Student Award.

Financial Support for Overseas Students

Thanks to the support from Takano Foundation, MOC2017 will be able to provide limited financial support for student presenters in MOC2017. The applicants must be full-time students living outside Japan. Student presenters who are interested in getting this support should submit the application form (available at <http://www.moc2017.com/>) after receiving the acceptance notice of the submitted paper from MOC2017.

Official Language

The official language of MOC2017 is English.

Photograph and Video

No photographing and video recording are permitted during the all technical sessions including the anniversary symposium, special session, and poster session.

Social Events & Exhibition

Get Together

"Get Together" will be held in ENEOS Hall in Building "3-s" in the evening of Sunday, 19 November. All the attendees of MOC2017 are cordially invited.

Award Ceremony

Award Ceremony will be held in Convention Hall in Building "An" at 16:30, Wednesday, 22 November.

Microconcert

"Microconcert" will be performed by Machida Philharmony Baroque Ensemble (MPB) in Presentation Room in Building "S", 17:15-18:15 Tuesday 21, November. All the attendees of MOC2017 and their accompanying family are invited to the Microconcert.

Conference Party

In the evening of Tuesday, 21 November, Conference Party starts at 18:15 right after the Microconcert at 2F-Foyer in Building "An". Participants who want to attend the party are requested to make registration. The party registration fee is ¥3,000 per person.

Technical Exhibition

Table-top technical exhibition is planned during MOC2017. Take this opportunity to see the latest products and technologies in relation to microoptics. Exhibition will be held at 2F-Foyer in Building "An".

Exhibitors (alphabetical order)

- Advanced Photonics, Inc.
- Archnext Co.,Ltd.
- Cybernet Systems Co.,Ltd.
- High-Tech Corporation
- IRC, Inc.
- JEOL Ltd.
- Optquest Co.,Ltd.
- San-es Trading Co.,Ltd.
- Scivax Corporation
- Sevensix, Inc.
- Tokyo Instruments, Inc.

Technical Sessions

Sunday, 19 November

ENEOS Hall, Bldg. "3 Annex"

14:00-17:20 30th Anniversary Symposium

AS-1 30 years of Microoptics Conference

14:00 H. Nakajima, *Waseda Univ.*

AS-2 40 years of VCSEL photonics

14:40 K. Iga, *Tokyo Inst. Tech.*

Break (15:20-16:00)

AS-3 50 years of fibers and integrated optics

16:00 Y. Kokubun, *Yokohama National Univ.*

AS-4 Photonics polymers for fiber and display

16:40 Y. Koike, *Keio Univ.*

17:30-19:00 Get Together

Presider: H. Shoji, *Sumitomo Electric Ind., Ltd.*

Monday, 20 November

Convention Hall, Bldg. "An"

9:00-9:15 Opening Remarks

Conference Co-chairs:

S. Iwamoto, *Univ. Tokyo*

S. Yamashita, *Univ. Tokyo*

9:15-11:45 Plenary Session

Chairs: S. Iwamoto, *Univ. Tokyo*

S. Yamashita, *Univ. Tokyo*

PL-1 Progress in quantum dots for advanced photonics

9:15 Y. Arakawa, *Univ. of Tokyo*

PL-2 The multifaceted world of photonic crystal fibres

9:50 P. Russell, *Max Planck Institute for the Science of Light*

Break (10:25-10:35)

PL-3 Advances in nanophotonic MEMS

10:35 M. C. Wu, *Univ. of California, Berkeley*

PL-4 VCSEL technology for imaging and sensor systems applications

11:10 K. J. Ebeling, *Universität Ulm*

Lunch (11:45-13:30)

13:30-15:15 Session A: Optical Communication and Modulation

Chairs: A. Choudhary, *Univ. Sydney*

H. Kanamori, *Sumitomo Electric Ind., Ltd.*

A-1 Underwater wireless optical communications: from system-level demonstrations to channel modelling (Invited)

13:30

H. M. Oubei, C. Shen, K.-H. Park, A. Kammoun, T. K. Ng, M.-S. Alouini, and B. S. Ooi, *King Abdullah University of Science and Technology*

Technical Sessions

- A-2** **High extinction ratio LN modulator with low half-wave voltage and small chirp by using thin substrate**
14:00 Y. Yamaguchi^{1,2}, A. Kanno¹, N. Yamamoto¹, T. Kawanishi^{1,2}, and H. Nakajima², ¹National Institute of Information and Communications Technology, ²Waseda University
- A-3** **60 GHz band optical single-sideband modulator using polarization-reversed structures with asymmetric Mach-Zehnder optical waveguide**
14:15 Y. Matsukawa, T. Inoue, H. Murata, and A. Sanada, *Osaka University*
- A-4** **32-Gbps modulation of single silicon microring resonator-loaded Mach-Zehnder modulator**
14:30 Y. Yabushita, H. Takazawa, Y. Kokubun, and T. Arakawa, *Yokohama National University*
- A-5** **Optical-to-wireless media conversion by utilizing cross gain modulation at semiconductor optical amplifier**
14:45 Y. Yamanaka, Y. Kim, T. Kuboki, and K. Kato, *Kyushu University*
- A-6** **WDM coupler for signal and second harmonic pump based on silica-based PLC for hybrid integration of linear and nonlinear optical devices**
15:00 T. Kashiwazaki, T. Kazama, T. Umeki, J. Sakamoto, and R. Kasahara, *NTT Corporation*

Break (15:15-15:30)

15:30-17:15 Session B: Manipulation and Processing of Light

Chairs: B. S. Ooi, *King Abdullah Univ. Sci. and Tech.*
S. Ura, *Kyoto Inst. Tech.*

- B-1** **On-chip Brillouin processing for coherent optical communications (Invited)**
15:30 A. Choudhary¹, E. Giacomidis¹, M. Pelusi¹, E. Magi¹, D. Marpaung¹, T. Inoue², K. Vu³, D.-Y. Choi³, P. Ma³, S. Madden³, B. Corcoran⁴, S. Namiki², and B. J. Eggleton¹, ¹University of Sydney, ²AIST, ³Australian National University, ⁴Monash University
- B-2** **Pre-distortion technique for compensating QAM signal distortions generated by dual-parallel Mach-Zehnder modulators with low-extinction ratio and small-chirp parameter**
16:00 Y. Kodama¹, Y. Yamaguchi^{1,2}, A. Kanno², T. Kawanishi^{1,2}, and H. Nakajima¹, ¹Waseda University, ²National Institute of Information and Communications Technology
- B-3** **Novel measurement method for optical pulse width at high-repetition frequency**
16:15 K. Mitsueda, Y. Yamanaka, and K. Kato, *Kyushu University*
- B-4** **Proposal of compact three-mode exchanger based on symmetric and asymmetric directional couplers with integrated mode rotator**
16:30 T. Fujisawa¹, E. Taguchi¹, T. Sakamoto², T. Matsui², K. Tsujikawa², K. Nakajima², and K. Saitoh¹, ¹Hokkaido University, ²NTT Access Service Network Laboratories
- B-5** **Proposal of Si waveguide optical isolator based on nonreciprocal TE-TM mode conversion using magneto-optical phase shift for TM mode**
16:45 R. Yamaguchi, Y. Shoji, and T. Mizumoto, *Tokyo Institute of Technology*

Technical Sessions

B-6 Efficient silicon nitride grating coupler with a dielectric multilayer reflector
17:00

J. Hong, and S. Yokoyama, *Kyushu University*

Break (Light meal) (17:15-17:45)

17:45-19:45 Special Session:

Vehicle Microoptics for Autonomous Driving

Chairs: M. Kagami, *Toyota Central R&D Labs.*

O. Sugihara, *Utsunomiya Univ.*

SS-1 Optical communications for next generation automotive networks
17:45

O. Ciordia, *Knowledge Development for POF S.L.*

SS-2 Monolithic optical phased arrays in silicon
18:15

H. Hashemi, *Univ. of Southern California*

SS-3 Laser range finder for planetary exploration
18:45

T. Mizuno, *JAXA*

SS-4 Fiber optic interconnection devices for in-vehicle communications
19:15

S. Kobayashi and C. Almeida, *TE Connectivity*

Tuesday, 21 November

Convention Hall, Bldg. "An"

9:00-10:30 Session C: Lasers and Light Control

Chairs: J. Mork, *Technical Univ. Denmark*

K. Kato, *Kyushu Univ.*

C-1 Design of 100Gbps double transverse coupled cavity VCSELs
9:00

H. R. Ibrahim¹, M. Ahmed², and F. Koyama¹, ¹*Tokyo Institute of Technology*, ²*Minia University*

C-2 Multiple photon resonance by using active-multimode interferometer laser diode
9:15

B. Hong, T. Kitano, T. Mori, H. Jiang, and K. Hamamoto, *Kyushu University*

C-3 WDM lasers and arrays for applications in optical networking and interconnect: overview and perspectives (Invited)
9:30

S.-L. Lee, *National Taiwan University of Science and Technology*

C-4 Selective mode conversion using dual-phase modulation
10:00

T. Maeda¹, A. Okamoto¹, K. Ogawa¹, A. Tomita¹, Y. Wakayama², and T. Tsuritani², ¹*Hokkaido University*, ²*KDDI Research, Inc.*

C-5 Silicon waveguide Michelson interferometer for multi-wavelength modulator
10:15

K. Sekine, Y. Shoji, and T. Mizumoto, *Tokyo Institute of Technology*

Break (10:30-10:45)

Technical Sessions

10:45-12:45 Session D: Optical Fiber and Waveguide Devices

Chairs: S.-L. Lee, *National Taiwan Univ. Sci. and Tech.*
Y. Koike, *Keio Univ.*

- D-1** Silicon photonics for optical computing, interconnects and sensing (Invited)
10:45 R. T. Chen, *The University of Texas, Austin*
- D-2** Novel fiber attachment techniques for miniaturization of planar lightwave circuit module
11:15 S. Katayose, K. Watanabe, A. Aratake, J. Sakamoto, R. Kasahara, and M. Itoh, *NTT Corporation*
- D-3** Low-noise graded-index plastic optical fiber for consumer photonics in 8K era
11:30 A. Inoue and Y. Koike, *Keio University*
- D-4** Silicon photonics for optical communication and sensing (Invited)
11:45 C. Doerr, *Acacia Communications*
- D-5** Observation of eigenmode propagation in few-mode fibers by selective LP mode excitation
12:15 T. Yamaguchi¹, S. Miura², and Y. Kokubun³, ¹*School of Engineering Sciences, Yokohama National University*, ²*Graduate School of Engineering, Yokohama National University*, ³*Faculty of Engineering, Yokohama National University*
- D-6** Pluggable photonic circuit platform using a novel passive alignment method
12:30 H. Ishikawa, K. Shikama, K. Suzuki, S. Katayose, and A. Aratake, *NTT Corporation*

Break (12:45-13:00)

2F-Foyer, Bldg. "An"

13:00-15:00 Session P: Poster Session (Light meal and coffee inclusive)

Chairs: O. Sugihara, *Utsunomiya Univ.*
H. Takahashi, *Sophia Univ.*

(13:00-14:00) Odd numbers: 1st half

(14:00-15:00) Even numbers: 2nd half

- P-1** Design of a high-speed graphene optical modulator on a silicon slot waveguide
G. Kovacevic¹, C. Phare², S. Y. Set¹, M. Lipson², and S. Yamashita¹, ¹*RCAST, The University of Tokyo*, ²*School of Engineering and Applied Science, Columbia University in the City of New York*
- P-2** Small-signal response of slow-light VCSEL amplifier
A. M. A Hassan^{1,2}, M. Ahmed³, M. Nakahama¹, and F. Koyama¹, ¹*FIRST, Tokyo Institute of Technology*, ²*Faculty of Science, Minia University*, ³*Faculty of Science, Al-Azhar University, Assuit*
- P-3** Consideration of wall-plug efficiency for LEDs
G. Hatakoshi, *Waseda University*
- P-4** Theoretical and experimental thermal resistance of VCSELs considering thermal conductivity reduction effect of thin layer
M. Mimura and T. Miyamoto, *Tokyo Institute of Technology*

Technical Sessions

- P-5 Electromagnetically-induced focusing controlled by a microwave field**
O. N. Verma and S. Roy, *NIT Warangal*
- P-6 Design and characterization of new azimuth-type lens for reading glasses with extended depth of focus**
R. Onose and S. Komatsu, *Waseda University*
- P-7 Comparison of wavefront coding optical system using two conjugate phase masks among cubic, sinusoidal, and tangent phase masks**
M. Nakamura and S. Komatsu, *Waseda University*
- P-8 Artifacts in fluorescence lifetime imaging of gold nanorod dimer**
S.-P. Chen^{1,2}, P.-J. Cheng², C.-T. Hsieh², and S.-W. Chang^{1,2},
¹*National Chiao Tung University*, ²*Research Center for Applied Sciences, Academia Sinica*
- P-9 Image evaluation based on the mean structural similarity for wavefront coding**
T. Fukuda and S. Komatsu, *Waseda University*
- P-10 Evaluation of inverse tangent phase mask in wavefront coding**
M. Takahashi and S. Komatsu, *Waseda University*
- P-11 Evaluation of the diffractive element depth sensor under the thermal conditions**
K.-D. Chang, C.-W. Liu, L.-Y. Chen, and C.-I. Tai, *Mechanical and Mechatronics Systems Research Laboratories, Industrial Technology Research Institute*
- P-12 CAD modelling of optical fiber reflectance probe for biomedical diffuse reflectance spectroscopy applications**
Y. Amer and H. Omran, *German University in Cairo*
- P-13 Simultaneous utilization of spontaneous emission and laser emission in VCSEL for efficiency improvement of optical wireless power transmission**
Y. Suda and T. Miyamoto, *Tokyo Institute of Technology*
- P-14 Highly aberrated phase elements for presbyopia and astigmatism correction**
C. Almaguer, A. Justo, and A. Eva, *University of Santiago de Compostela*
- P-15 Ultrafast direct measurement of HBT effect by two-photon absorption based on Feynman's path-integral theory**
B. Bai, Y. Zhou, H. Chen, H. Zheng, J. Liu, and Z. Xu, *Xi'an Jiaotong University*
- P-16 Beam propagation analysis of optical activity and circular dichroism in helically twisted photonic crystal fiber**
S. Nakano, T. Fujisawa, T. Sato, and K. Saitoh, *Hokkaido University*
- P-17 Nanostructured gradient index microlens for mid infrared applications**
R. Buczynski^{1,2,3}, P. Stafiej^{1,2}, A. Anuszkiewicz¹, A. Filipkowski¹, D. Pysz¹, A. J. Waddie³, and M. R. Taghizadeh³,
¹*Institute of Electronic Materials Technology*, ²*Faculty of Physics, University of Warsaw*, ³*Department of Physics, School of Engineering and Physical Sciences, Heriot-Watt University*

Technical Sessions

- P-18 Resonant frequency analysis of dielectric equilateral triangular microcavities**
I. O. Sukharevsky¹, M. Lebental², and S. Bittner², ¹*Technical University of Munich*, ²*Ecole normale superieure Paris-Saclay*
- P-19 Gallium diffused lithium niobate optical waveguide**
S. Ren¹, X. F. Yang¹, W. H. Wong², D. Y. Yu¹, E. Y. B. Pun², and D. L. Zhang¹, ¹*Tianjin University*, ²*City University of Hong Kong*
- P-20 Light-induced self-written waveguide formation by near-infrared wavelength continuous wave laser light**
K. Kawamura, F. S. Tan, and O. Sugihara, *Utsunomiya University*
- P-21 MEMS plasmonic switch with stripe plasmonic waveguide**
T. Ando¹, T. Kajii¹, K. Yamaguchi², T. Okamoto¹, and M. Haraguchi¹, ¹*Tokushima University*, ²*Kagawa University*
- P-22 Fabrication of fine metal structure by using interference pattern of copropagating optical vortices and lift-off process**
M. Sakamoto¹, T. Hizatsuki¹, K. Noda¹, T. Sasaki¹, N. Kawatsuki², K. Goto³, and H. Ono¹, ¹*Nagaoka University of Technology*, ²*University of Hyogo*, ³*Nissan Chemical Industries, Ltd.*
- P-23 Enhanced thermal stability of electro-optic polymer modulator**
H. Miura¹ and S. Yokoyama², ¹*Interdisciplinary Graduate School of Engineering Sciences, Kyushu University*, ²*Institute for Materials Chemistry and Engineering, Kyushu University*
- P-24 Optical reflectance-dependent solar cell efficiency of deformed multi-walled carbon nanotubes (MWCNTs) with quantum dots**
U. Junthorn^{1,2}, H. Sachio², S. Hou², C. Li², A. Hatta², and H. Furuta², ¹*Thai-Nichi Institute of Technology*, ²*Kochi University of Technology*
- P-25 Magneto-plasmonics on perpendicular magnetic nanostructures consisting of CoPt layers and noble metal grains**
H. Yamane¹, Y. Isaji², K. Takeda², and M. Kobayashi², ¹*Akita Industrial Technology Center*, ²*Chiba Institute of Technology*
- P-26 Proximity amplitude and phase control for beam reduction using computer-generated hologram**
C. H. Vu¹, S. Hasegawa¹, Y. Ogura², J. Tanida², and Y. Hayasaki¹, ¹*Department of Optical Engineering, Utsunomiya University*, ²*Graduate School of Information Science and Technology, Osaka University*
- P-27 Au nanostructures electrodeposited on graphene oxide-modified ITO glass as SERS substrates for dopamine detection in human serum**
V. D. Phung¹, J. W. Sik¹, J.-H. Kim², and S.-W. Lee¹, ¹*Gachon University*, ²*Gil Medical Center*
- P-28 Thermoplasmonics of micro glassbead coated with gold nanoparticles**
N. Sekimoto, S. Yanagiya, and A. Furube, *Tokushima University*

Technical Sessions

- P-29** Transient absorption of titanium dioxide sputtered film deposited on two-dimensionally assembled gold nanoparticles
T. Takahata, S. Yanagiya, and A. Furube, *Tokushima University*
- P-30** Light-emitting diode conditioned with YAG:Ce³⁺ phosphors and CdSe/ZnS quantum dots for high color-rendering-index white-light generation
H. Xiao¹, X. Xiao², K. Wang², and K. S. Chiang¹, ¹*City University of Hong Kong*, ²*Southern University of Science and Technology*
- P-31** Luminescence investigation of near white light emitting zinc stannate
M.-T. Tsai, C.-H. Lin, and C.-C. Chan, *National Formosa University*
- P-32** Resistance evaluation of holographic polymer-dispersed liquid crystal memory for gamma-ray irradiation
A. Ogiwara¹, M. Watanabe², and Y. Ito², ¹*Kobe City College of Technology*, ²*Shizuoka University*
- P-33** Effective permeability measurement of μ -negative metamaterials using an inductance method
Z. Hong¹, C. Zhao¹, X. Luo², Z. Huang¹, H. Zhu¹, and S. Zhu¹, ¹*School of Electronic Information and Electrical Engineering, Shanghai Jiao Tong University*, ²*Department of Physics, Shanghai Jiao Tong University*
- P-34** Optical and emission properties of dye molecules captured in the mesoscale channels of micron-sized metal-organic framework crystals
S. Huh¹, I.-H. Choi¹, and Y. Kim², ¹*Hankuk University of Foreign Studies*, ²*Ewha Womans University*
- P-35** Effect of UV irradiation on transmittance spectra in polymer stabilized cholesteric liquid crystals
A. Ogiwara¹ and H. Kakiuchida², ¹*Kobe City College of Technology*, ²*National Institute of Advanced Industrial Science and Technology*
- P-36** Vertical split-ring resonator metamaterial for isotropic absorption and sensor
M. K. Chen¹, P. C. Wu², C. Y. Liao¹, J.-W. Chen¹, R. J. Lin¹, Y. H. Chen¹, and D. Pi. Tsai^{1,2}, ¹*Department of Physics, National Taiwan University*, ²*Research Center for Applied Sciences, Academia Sinica*
- P-37** Real time sensing of ¹²CO₂ and ¹³CO₂ using 2 μ m DFB-LD
K. Amamoto, K. Tei, S. Yamaguchi, S. Sakai, M. Asobe, and T. Ohba, *Tokai University*
- P-38** AC magnetic field imaging by using digital micro-mirror device
S. Taue, Y. Toyota, K. Fujimori, and H. Fukano, *Okayama University*
- P-39** Experimental demonstration of a digital holographic microscope based on a planar lightwave circuit
H. Satake¹, K. Ikeda¹, K. Inomoto¹, K. Okamoto², and E. Watanabe¹, ¹*The University of Electro-Communications*, ²*Okamoto Laboratory*
- P-40** Proposal of interference signal processing for dynamic displacement measurement with high time-resolution
O. Furukawa and Y. Tanaka, *Tokyo University of Agriculture and Technology*

Technical Sessions

- P-41 Observation of stimulated Brillouin scattering growth along optical fiber using two-photon absorption process in a silicon avalanche photodiode**
M. Nemoto, H. Miyazawa, and Y. Tanaka, *Tokyo University of Agriculture and Technology*
- P-42 Computational ghost Imaging ---An alternative for underwater optical imaging**
M. Le, H. Zheng, and Z. Xu, *Xi'an Jiaotong University*
- P-43 Long-term stability improvement of Brillouin measurement in plastic optical fibers by Fresnel suppression using amorphous fluoropolymer**
N. Matsutani, H. Lee, Y. Mizuno, and K. Nakamura, *Tokyo Institute of Technology*
- P-44 Perfluorinated graded-index plastic optical fiber Bragg gratings: observation and theoretical analysis of unique dependence on pressure**
R. Ishikawa¹, H. Lee¹, A. Lacraz², A. Theodosiou², K. Kalli², Y. Mizuno¹, and K. Nakamura¹, ¹*Tokyo Institute of Technology*, ²*Cyprus University of Technology*
- P-45 Tens-of-nanometer-scale dynamic displacement measurement using active change of operation point for phase modulator**
K. Ueda, Y. Tanaka, and K. Tsuchiya, *Tokyo University of Agriculture and Technology*
- P-46 Proposal of signal processing based on machine learning in Brillouin optical correlation domain analysis/reflectometry**
Y. Yao, S. Y. Set, and S. Yamashita, *The University of Tokyo*
- P-47 Dual-wavelength, low-coherence digital holography using quantum dot based light source**
S. Jeon¹, J.-Y. Lee¹, J.-S. Lim², Y.-J. Kim¹, and N.-C. Park¹, ¹*Department of Mechanical Engineering, Yonsei University*, ²*Center for Information Storage Device, Yonsei University*
- P-48 The application of micro laser Doppler velocimeter to hemodialysis**
K. Yoshinaga, F. Nakashima, H. Nogami, and R. Sawada, *Kyushu University*
- P-49 Proposal of Si-based integrated probe for laser Doppler cross-sectional velocity distribution measurement**
K. Maru¹, K. Yamashita¹, H. Watanabe¹, R. Matsuda¹, and K. Nakatsuhara², ¹*Kagawa University*, ²*Kanagawa Institute of Technology*
- P-50 Basic study on real-time vibration displacement measurement using probe light modulated by phase-modulated RF signal**
K. Yamamoto, Y. Yamada, and Y. Tanaka, *Tokyo University of Agriculture and Technology*
- P-51 Output characteristics for high-order resonance modes in resonance-type guided-wave optical acoustic emission sensors**
K. Shimizu¹, M. Ohkawa², and T. Sato², ¹*Graduate School of Science and Technology, Niigata University*, ²*Faculty of Engineering, Niigata University*
- P-52 Thermally annealed gold film on optical fiber for multimode interferometric refractive index measurement**
Y. Hosokawa, S. Taue, and H. Fukano, *Okayama University*

Technical Sessions

- P-53 Non-destructive inspection of semiconductor optical waveguide using optical coherence tomography with visible broadband light source**
K. Ishida¹, N. Ozaki¹, N. Ikeda², and Y. Sugimoto²,
¹Wakayama University, ²NIMS
- P-54 Design method of a liquid crystal based computer-generated hologram for freeform surface measurement**
Q. Hao, S. Wang, and Y. Hu, *Beijing Institute of Technology*
- P-55 Weight sensor by 3D printed mechanically induced long-period fiber grating for power control inside single-mode fiber**
R. Khun-in^{1,2}, K. Nanjo¹, Y. Jiraraksopakun², A. Bhatranand², and H. Yokoi^{1,3}, ¹Graduate School of Engineering and Science, *Shibaura Institute of Technology*, ²King Mongkut's Univ. of Tech. Thonburi, ³SIT Research Center for Green Inno. *Shibaura Institute of Technology*
- P-56 Diaphragm thickness-dependent sensitivity in a glass-based guided-wave optical microphone**
Y. Karasawa¹, M. Ohkawa², and T. Sato², ¹Graduate School of Science and Technology, *Niigata University*, ²Faculty of Engineering, *Niigata University*
- P-57 Preparation of Cu₂O@apoferritin for detection of dopamine**
H. K. Lee and S. J. Park, *Gachon University*
- P-58 Optical performance of computer generated hologram under a small reconstruction beam**
T.-T. Huang, Q.-C. Zeng, C.-J. Chuang, and C.-M. Wang, *National Dong Hwa University*
- P-59 Breakdown voltage based transformer oil analysis using optical fiber as sensor**
D. K. Mahanta¹, and S. Laskar², ¹Assam Engineering College, ²Assam Don Bosco University
- P-60 Magnetic field sensing by bi-layer Ni-based subwavelength periodic structure operating visible wavelength region**
Y. Takashima, M. Haraguchi, and Y. Naoi, *Tokushima University*
- P-61 Dynamic observation of laser-tissue interaction with optical coherence tomography**
W.-J. Chen¹, W.-C. Chen¹, and M.-T. Tsai^{1,2}, ¹Department of Electrical Engineering, *Chang Gung University*, ²Department of Dermatology, *Chang Gung Memorial Hospital*
- P-62 Fundamental demonstration of mode-group demultiplexing technique based on volume holographic demultiplexer**
S. Shimizu¹, A. Okamoto¹, F. Mizukawa¹, K. Ogawa¹, A. Tomita¹, T. Takahata^{1,2}, S. Shinada³, and N. Wada³,
¹Hokkaido University, ²OPTOQUEST Co., Ltd., ³National Institute of Information and Communications Technology
- P-63 Offset-launch measurement for few-mode long-period fiber gratings fabricated using tilted amplitude mask**
T. Mizunami, R. Shioya, and M. Minami, *Kyushu Institute of Technology*
- P-64 Waveguide-type optical circuit for recognition of 8PSK-coded labels**
N.-E. Odbayar, Y. Oiwa, H. Kishikawa, and N. Goto, *Tokushima University*

Technical Sessions

- P-65 Asymmetric LP₀₁-LP₁₁-LP₀₁ mode conversion along in-line few-mode fibers for all-fiber bandpass filters**
M. Kanda, T. Kibune, and H. Sakata, *Shizuoka University*
- P-66 A thickness-varying sub-wavelength grating focusing lens for TE polarization Light**
M. Zhang, Y. Huang, W. Fang, H. Fan, X. Duan, K. Liu, and X. Ren, *Beijing University of Posts and Telecommunications*
- P-67 Phase effect on silicon-wire based broadband directional coupler using Mach-Zehnder structure for CWDM applications**
S.-H. Hsu, W.-D. Lin, and Y.-C. Chung, *National Taiwan University of Science and Technology*
- P-68 Linewidth-adjustable silicon photonics waveguide Bragg filters**
T.-H. Yen, C.-J. Wu, C.-J. Yu, and Y.-J. Hung, *National Sun Yat-sen University*
- P-69 Fabrication of micro-tip for coupling to wire waveguides**
M. Tomiki and H. Sakata, *Shizuoka University*
- P-70 Fabrication and characterization of a binary diffractive lens for controlling the focal length and depth of focus**
A. Motogaito, Y. Iguchi, S. Kato, H. Miyake, and K. Hiramatsu, *Mie University*
- P-71 Numerical estimation of dispersion effect in deeply-etched fully integrated MEMS Mach-Zehnder interferometer**
H. Omran,¹ B. Mortada², and Di. Khalil³, ¹*German University in Cairo*, ²*Si-Ware Systems*, ³*Ain Shams University*
- P-72 Analysis of phase-sensitive amplification in phase-shifted periodically-poled waveguide for discrimination and amplification of optical vector modulation signal**
S. Sakakibara, H. Murata, and A. Sanada, *Osaka University*
- P-73 Analyses of all-optical gate switches employing quasi-phase matched devices: effects on pattern difference of domain inversion period error**
Y. Fukuchi, T. Kimura, T. Yoshida, M. Fujisawa, and E. Uzu, *Tokyo University of Science*
- P-74 Pattern effects of random domain length error in PPLN-based all-optical retiming switches**
Y. Fukuchi, T. Kimura, and T. Matsuura, *Tokyo University of Science*
- P-75 Reconfiguring spatial light modulator to scramble computer holographic coding patterns**
J.-F. Huang¹, Y.-C. Chen¹, and C.-S. Chen², ¹*Department of Electrical Engineering, National Cheng Kung University*, ²*Department of Information Management, Tainan University of Technology*
- P-76 Numerical analyses of all-optical gate switches employing periodically poled lithium niobate devices: pattern effect of domain length error**
Y. Fukuchi and T. Matsuura, *Tokyo University of Science*
- P-77 Low attenuation mode converter with mode power distribution controllability by twist processing in step-index optical fibers**
K. Horiguchi^{1,2}, T. Iikubo¹, Y. Beppu¹, Y. Hyakutake¹, and O. Sugihara², ¹*Adamant Co., Ltd.*, ²*Utsunomiya University*

Technical Sessions

- P-78 Fast wavelength stabilization of tunable laser after starting laser oscillation**
H. Fukuda, K. Yamaguchi, T. Kuboki, and K. Kato, *Kyushu University*
- P-79 Evaluation of wavelength dependence of integrated MZM using balanced-bridge and asymmetric X waveguide structures for high extinction ratio modulation**
Y. Hanawa¹, Y. Yamaguchi^{1,2}, A. Kanno², T. Kawanishi^{1,2}, and H. Nakajima¹, ¹Waseda University, ²National Institute of Information and Communications Technology
- P-80 Proposal of quantum well polarization modulator based on double microring resonator for Stokes vector modulation**
T. Hirayama, K. Suzuki, Y. Kokubun, and T. Arakawa, *Yokohama National University*
- P-81 Efficiency improvement by serial-connection of VCSEL array for optical wireless power transmission**
Y. Katsuta and T. Miyamoto, *Tokyo Institute of Technology*
- P-82 Linearizer for wavelength sweep at tunable DBR-LD and linearity evaluation of sweep**
M. Gohara, R. Kimura, K. Yamaguchi, T. Kuboki, and K. Kato, *Kyushu University*
- P-83 MOVPE growth of lattice matched InAs/GaAsSb superlattice on InAs substrate for mid-infrared sensing devices**
K. Takahashi, Y. Fujiwara, Y. Yamagata, K. Yoshimoto, Y. Inoue, R. Wakaki, K. Maeda, and M. Arai, *University of Miyazaki*
- P-84 Hybrid ultra thin silicon and electro-optic polymer waveguide modulator**
Y. Inoue¹, H. Miura¹, and S. Yokoyama^{1,2}, ¹Interdisciplinary Graduate School of Engineering Sciences, *Kyushu University*, ²Institute for Materials Chemistry and Engineering, *Kyushu University*
- P-85 Emission spectrum evaluation of 0.8 - 1.1 μm range chirped multiple quantum wells for optical sensing**
M. Kamikado, Y. Imamura, and M. Arai, *University of Miyazaki*
- P-86 Reliability analysis of GaN-based UVLEDs under forward bias operations in salty vapor environment**
S.-C. Huang¹, H. Li¹, Y.-S. Lee², C.-H. Hung², S.-C. Wang¹, H. Chen², and T.-C. Lu¹, ¹National Chiao Tung University, ²National Chi Nan University
- P-87 Three-dimensional compressive strain and its effect on optical properties of GaN-based light emitting diode grown on patterned sapphire substrate by confocal spectromicroscopy**
H. Li¹, H.-Y. Cheng², W.-L. Chen², Y.-H. Huang², C.-K. Li², C.-Y. Chang¹, Y.-R. Wu², T.-C. Lu¹, and Y.-M. Chang², ¹National Chiao Tung University, ²National Taiwan University
- P-88 Gold and silver core-shell nanoparticles for light absorption enhancement of organic solar cells**
H. S. Kim, Q. N. Tran, and S. J. Park, *Gachon University*
- P-89 Silicon waveguide TE₀/TE₁ mode conversion Bragg grating for constituting a resonator device**
H. Okayama^{1,2}, Y. Onawa^{1,2}, D. Shimura^{1,2}, H. Yaegashi^{1,2}, and H. Sasaki^{1,2}, ¹Oki Electric Industry Co., Ltd., ²PETRA

Technical Sessions

- P-90 Heat-resistant low-loss connectors for gigabit plastic optical fiber communication**
M. Uchida¹, H. Tanaka¹, S. Kobayashi^{1,2}, T. Kikuta³, F. S. Tan¹, and O. Sugihara¹, ¹*Utsunomiya University*, ²*Tyco Electronics Japan G.K.*, ³*Adamant Co., Ltd*
- P-91 Analysis on Si modified MMI-waveguide-type optical switch operated with carrier injection**
T. Shirai¹, A. Ishikawa¹, Y. Matsushima², H. Ishikawa¹, and K. Utaka¹, ¹*Faculty of Science and Engineering, Waseda University*, ²*Green Computing Systems Research Organization, Waseda University*
- P-92 Output position variation in grating coupler integrated in waveguide resonator**
R. Tsujimoto¹, K. Mori¹, K. Kintaka², J. Inoue¹, and S. Ura¹, ¹*Kyoto Institute of Technology*, ²*National Institute of Advanced Industrial Science and Technology*
- P-93 Robust silicon 3-dB coupler using Inverse engineering based optimization**
H.-C. Chung and S.-Y. Tseng, *National Cheng Kung University*
- P-94 Optimization of TiO₂ composite coating on pc-WLED package to enhance optical efficiency**
I. S. Han¹, H. J. Kim¹, M. H. Shin¹, C. S. Kim², and Y. J. Kim¹, ¹*Yonsei University*, ²*LUMIMICRO.Co.,Ltd*
- P-95 Feasibility study of adaptive gain control of quantum-dot SOA for unicast/multicast wavelength selective routing systems in T-band**
T. Fujimoto¹, T. Uesugi¹, R. Kubo¹, H. Tsuda¹, M. Sudo², T. Hajikano², Y. Tomomatsu³, and K. Yoshizawa⁴, ¹*Keio University*, ²*Optoquest Co., Ltd.*, ³*Koshin Kogaku Co., Ltd.*, ⁴*Pioneer Micro Technology Corporation*
- P-96 Pump phase-locking to phase-conjugated twin waves with heterodyne OPLL assisted by sum-frequency and second harmonic generation for ND-PSAs**
Y. Okamura¹, K. Kondo¹, T. Okabe¹, M. Koga², and A. Takada¹, ¹*Tokushima University*, ²*Oita University*
- P-97 Quadrature imbalance compensation for M-ary modulated signals interleaved with reference light**
Y. Okamura¹, H. Uno¹, M. Hanawa², and A. Takada¹, ¹*Tokushima University*, ²*University of Yamanashi*
- P-98 Proposal of cost-efficient and low-complexity platform for software defined visible light communication**
M. Che, T. Kuboki, and K. Kato, *Kyushu University*
- P-99 Tolerance to lateral displacement and angular deflection on mode sorting performance for beams carrying orbital angular momentum**
N. Sakashita, H. Kishikawa, and N. Goto, *Tokushima University*
- P-100 Multicast wavelength allocation for energy-efficient access networks considering wavelength switching time of T-band devices**
T. Shobudani, T. Fujimoto, and R. Kubo, *Keio University*
- P-101 Efficiency evaluation of hybrid concentrated photovoltaic under direct and diffuse illumination**
Q.-C. Zeng¹, W.-C. Tsao¹, T.-T. Huang¹, H.-F. Hong², and C.-M. Wang¹, ¹*Opto-electronic Engineering, National Dong Hwa University*, ²*Institute of Nuclear Energy Research, Atomic Energy Council, Executive Yuan*

Technical Sessions

- P-102 Medium-range propagation experiment using optical duplicate system**
T. Nakayama¹, Y. Takayama¹, C. Fujikawa², and K. Kodate³,
¹Faculty of Information and Telecommunication Engineering, Tokai University, ² Faculty of Engineering, Tokai University, ³Japan Women's University
- P-103 Metamaterial computational ghost imaging**
Y. He, S. Zhu, G. Dong, A. Zhang, and Z. Xu, *Xi'an Jiaotong University*
- P-104 Hybrid refractive-diffractive spectrum-splitting module as a full-spectrum concentrator**
J.-R. Sze¹ and A.-C. Wei², ¹Instrument Technology Research Center, National Applied Research Laboratories, ²Graduate Institute of Energy Engineering, National Central University
- P-105 Enlarging acceptance angle of a planar solar concentrator with a V-groove array**
A.-C. Wei¹, S.-Y. Hsiao², and J.-R. Sze³, ¹Graduate Institute of Energy Engineering, National Central University, ² Department of Mechanical Engineering, National Central University, ³Instrument Technology Research Center, National Applied Research Laboratories
- P-106 Pressure dependence of Brillouin frequency shift in plastic optical fibers**
H. Lee¹, Y. Mizuno¹, N. Hayashi², and K. Nakamura¹, ¹Tokyo Institute of Technology, ²Univ. of Tokyo

Break (15:00-15:15)

Convention Hall, Bldg. "An"

15:15-17:00 Session E: Photonic Crystals and Nanostructure

Chairs: R. Chen, *Univ. Texas at Austin*
K. Kishino, *Sophia Univ.*

- E-1 Photonic crystal Fano lasers and Fano switches (Invited)**
15:15 J. Mork, Y. Yu, D. Bekele, K. S. Mathiesen, T. S. Rasmussen, E. Semenova, L. Ottaviano, A. Sakanas, and K. Yvind, *Technical University of Denmark*
- E-2 A photonic crystal nanocavity with a quantum dot active region embedded by MBE regrowth**
15:45 Q. H. Vo¹, Y. Ota², K. Watanabe², T. Kageyama², S. Iwamoto^{1,2}, and Y. Arakawa^{1,2}, ¹Institute of Industrial Science, Univ. of Tokyo, ²NanoQuine, Univ. of Tokyo
- E-3 Lasing characteristics of intermixed highly-stacked quantum dot structure by ion implantation for wavelength-manipulated light sources**
16:00 S. Matsui¹, Y. Akashi¹, S. Isawa¹, A. Matsumoto², K. Akahane², Y. Matsushima¹, H. Ishikawa¹, and K. Utaka¹, ¹Waseda University, ²National Institute of Information and Communications Technology
- E-4 Experimental demonstration of polarization beam splitter based on auto-cloning photonic crystal**
16:15 K. Yajima¹, T. Kawashima², T. Ijiri², T. Chiba², S. Kawakami², and H. Takahashi¹, ¹Sophia University, ²Photonic Lattice, Inc.
- E-5 Bragg grating coupled high Q factor ring resonator using LSCVD deposited Si₃N₄ film**
16:30 X. Cheng and S. Yokoyama, *Kyushu University*

Technical Sessions

- E-6** **New method for development of fused silica fibres with freeform nanostructured gradient index core**
16:45 R. Buczynski^{1,2}, R. Kasztelan^{1,2}, A. Anuszkiewicz¹, A. Filipkowski¹, G. Stepniewski¹, D. Pysz¹, B. Siwicki¹, R. Stepień¹, and M. Klimczak¹, ¹*Department of Glass, Institute of Electronic Materials Technology*, ²*Faculty of Physics, University of Warsaw*

Break (17:00-17:15)

=====**Presentation Room, Bldg. "S"**=====

17:15-18:15 **Microconcert**

=====**2F-Foyer, Bldg. "An"**=====

18:15-19:45 **Conference Party**

Wednesday, 22 November

=====**Convention Hall, Bldg. "An"**=====

9:00-10:45 **Session F: Optical Materials and Applications**

Chairs: D. Iannuzzi, *Vrije Univ. Amsterdam*
K. Hamamoto, *Kyushu Univ.*

F-1 **Surface functionalization by femtosecond lasers and its ultrafast formation dynamics (Invited)**
9:00 C. Guo, *University of Rochester*

F-2 **Consideration of equilibrium condition in Shockley-Queisser limit for solar cell efficiency**
9:30 G. Hatakoshi¹ and K. Iga², ¹*Waseda University*, ²*Tokyo Institute of Technology*

F-3 **Narrow-band plasmonic thermal emitter using plasmonic nanochannel structure**
9:45 Z. Wang, J. K. Clark, Y.-L. Ho, and J.-J. Delaunay, *School of Engineering, The University of Tokyo*

F-4 **Independent drive of integrated multicolor (RGBY) micro-LED array using regularly arrayed InGaN based nanocolumns**
10:00 N. Sakakibara¹, K. Narita¹, T. Oto¹, and K. Kishino^{1,2}, ¹*Department of Applied Sciences and Engineering, Sophia University*, ²*Sophia Nanotechnology Research Center, Sophia University*

F-5 **GaN-based vertical-cavity surface-emitting lasers operating at high temperature**
10:15 T.-C. Chang, S.-Y. Kuo, J.-T. Lian, K.-B. Hong, T.-C. Lu, and S.-C. Wang, *National Chiao Tung University*

F-6 **Exploring silicon oxycarbide films for photonics waveguides**
10:30 F. A. Memon^{1,2}, A. Melloni², and F. Morichetti², ¹*Politecnico di Milano Italy*, ²*PoliMi*

Break (10:45-11:00)

11:00-12:45 **Session G: Microoptics for Imaging**

Chairs: Z. He, *Shanghai Jiao Tong Univ.*
K. Kuroda, *Utsunomiya Univ.*

G-1 **MEMS based micromirror arrays (Invited)**
11:00 H. Hillmer, A. Tatzel, B. Al-Qargholi, M. M. Khan, and S. Akhundzada, *University of Kassel*

Technical Sessions

- G-2 Three-dimensional all-fluidic imaging systems**
11:30 D. Kopp, T. Brender, A. Dorn, L. Lehmann, and H. Zappe, *University of Freiburg*
- G-3 Biomimetic optical systems - strategies for miniaturization of optics**
11:45 R. Voelkel, *SUSS MicroOptics SA*
- G-4 Electro-optic spatial light modulator/deflector using multi-stage polarization-reversed structure**
12:00 Y. Hayashi¹, T. Inoue¹, H. Murata¹, A. Sanada¹, M. Okazaki², M. Ishino³, and K. Yamamoto³, ¹*Graduate School of Engineering Science, Osaka University*, ²*SCREEN Holdings Co., Ltd.*, ³*Photon Pioneers Centre, Osaka University*
- G-5 Imaging of topologically protected elastic mode in silica 1D phononic crystal via photoelastic effect**
12:15 I. Kim¹, S. Iwamoto^{1,2}, and Y. Arakawa^{1,2}, ¹*IIS, University of Tokyo*, ²*NanoQuine, University of Tokyo*
- G-6 Terahertz wave beam steering by optical phase control**
12:30 Y. Zhou, G. Sakano, K. Tsugami, H. Kanaya, and K. Kato, *Kyushu University*

Lunch (12:45-13:45)

13:45-15:30 Session H: Microoptics for Sensing

Chairs: H. Hillmer, *Univ. Kassel*
K. Maru, *Kagawa Univ.*

- H-1 Opto-mechanical ferrule-top devices in life science research (Invited)**
13:45 D. Iannuzzi, *Vrije Universiteit Amsterdam*
- H-2 Ultrasensitive fiber-optic refractive index sensor based on multimode interference with fiber-loop technique**
14:15 M. Naora, S. Taue, and H. Fukano, *Okayama University*
- H-3 Sensing the earth with micro-optics (Invited)**
14:30 Z. He¹, Q. Liu¹, J. Chen¹, and T. Tokunaga², ¹*Shanghai Jiao Tong University*, ²*The University of Tokyo*
- H-4 Detection of world's shortest hot spots in silica and plastic optical fibers by slope-assisted Brillouin optical correlation-domain reflectometry**
15:00 H. Lee, Y. Mizuno, and K. Nakamura, *Tokyo Institute of Technology*
- H-5 Mach-Zehnder interferometer with Fabry-Perot cavities in silicon-on-insulator for biosensing**
15:15 M. Mendez-Astudillo¹, H. Okayama^{1,2}, and H. Nakajima¹, ¹*Waseda University*, ²*Oki Electric Industry Co., Ltd.*

Break (15:30-15:45)

15:45-16:30 Post Deadline Papers

Chairs: O. Sugihara, *Utsunomiya Univ.*
H. Takahashi, *Sophia Univ.*

16:30-16:45 MOC Award Ceremony

16:45-17:00 Closing Remarks

Program Co-chairs:
O. Sugihara, *Utsunomiya Univ.*
H. Takahashi, *Sophia Univ.*

Registration Fees

	Before/On Oct. 17, 2017	After Oct. 18, 2017
Conference (General)	¥42,000	¥47,000
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Washington Hotel Shinjuku	4S	Single	¥13,060	8 min. walk from Shinjuku Station
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Hotel Unizo Tokyo Shibuya	8S	Single	¥14,788	7 min. walk from Shibuya Station

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MOC2017

November 19 - November 22, 2017

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The University of Tokyo, Komaba, Tokyo

Important Deadlines

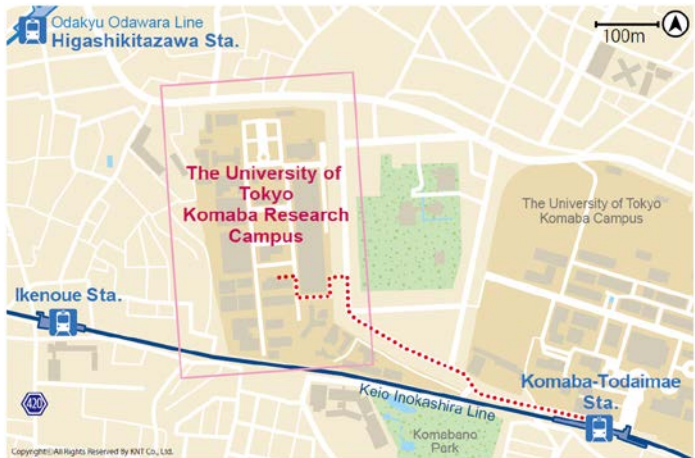
Hotel Accommodations: October 20, 2017(JST)

Early Registration: October 17, 2017(JST)

Post Deadline Papers: Noon, October 17, 2017(JST)

Conference Venue

The MOC2017 will take place at Komaba Research Campus, The University of Tokyo. The anniversary symposium will be held at ENEOS Hall in Building “3-s”. All other technical sessions will be held at Convention Hall in Building “An”. Komaba Research Campus can be reached within 20 minutes from Shibuya Station by train and walk.



Registration Desk

Please pick up your name tag and conference material at the registration desk, The desk is located in Building “3-s” on Nov. 19 (Sun) and in Building “An” from Nov. 20 (Mon) – 22(Wed).

- November 19 (Sun): Bldg. “3-s” 1F
- November 20 (Mon): Bldg. “An” 2F
- November 21 (Tue): Bldg. “An” 2F
- November 22 (Wed): Bldg. “An” 2F

Access Map

From Downtown Tokyo

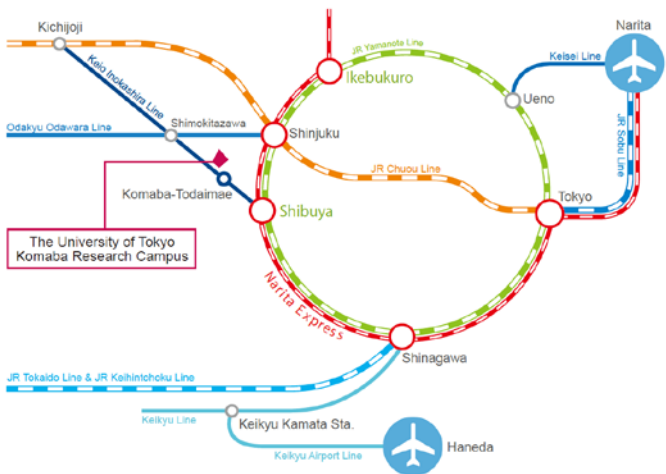
1. Take Yamanote Line (Japan Railways) to Shibuya Station.
2. Transfer to Keio Inokashira Line there and get off at Komaba-Todaimae Station. The ride from Shibuya Station to Komaba-Todaimae Station takes about 5 minutes.
3. About 10 min. walk to Komaba Research Campus.

From Haneda Airport

1. Take Keikyu Line to Shinagawa.
2. There, take JR Yamamoto Line to reach Shibuya Station.
3. Get off at Shibuya Station and transfer to Keio Inokashira Line to Komaba-Todaimae Station.
4. About 10 min. walk to Komaba Research Campus.

From Narita Airport

1. Take a Narita skyliner to Ueno Station.
2. There, change to Yamanote Line bound for Shibuya and Shinjuku.
3. Get off at Shibuya Station and transfer to Keio Inokashira Line to Komaba-Todaimae Station.
4. About 10 min. walk to Komaba Research Campus.



General Information

Visa

Visitors from countries whose citizens must have visas should apply to a Japanese consular office or diplomatic mission in their respective country. For details, please contact your travel agent or the local consular office in your country.

Currency Exchange

Only Japanese yen (JPY, ¥) is acceptable at regular stores and restaurants. Certain foreign currencies may be accepted at a limited number of hotels, restaurants and souvenir shops. You can exchange your currency with Japanese yen at foreign exchange banks and other authorized money exchangers on presentation of your passport.

Traveler's Checks and Credit Cards

Traveler's checks are accepted only by leading banks and major hotels in principal cities, and the use of traveler's checks in Japan is not as popular as in some other countries. VISA, Master Card, Diners Club, and American Express are widely accepted at hotels, department stores, shops, restaurants and nightclubs.

Tipping

In Japan, tips are not necessary anywhere, even at hotels and restaurants.

Electrical Appliances

Japan operates on 100 volts for electrical appliances. The frequency is 50 Hz in eastern Japan including Tokyo, and 60 Hz in western Japan.

Further Information

The latest information on the conference will be also presented on the Web site.

<http://www.moc2017.com/>

Contact

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