

# JSAP-OSA Joint Symposia 2017

## OSA Vice President Special Lecture

Date : Sept. 6 (Wed.), 2017 13:15~14:15

Venue : Room A410

Speaker : Ursula Gibson (Norwegian Univ. of Sci. and Tech.)

Title : Semiconductor core fibers for optoelectronics

## Session Schedule ※Session Programs are on 62-67.

4 JSAP-OSA Joint Symposia 2017 Poster Session			
9/8 (Fri.)	9:30 – 11:30	Poster	PB (Kokusai Center 2F)
4.1 Plasmonics		Organizer : Prabhat Verma (Osaka Univ.)	
9/5 (Tue.)	9:00 – 17:45	Oral	Room A410
9/6 (Wed.)	9:00 – 11:45	Oral	Room A410
4.2 Bio- and Medical Photonics		Organizer : Yuji Matsuura (Tohoku Univ.) / Izumi Nishidate (Tokyo Univ. of Agri. And Tech.) , Nicholas I Smith (Osaka Univ.)	
9/5 (Tue.)	13:15 – 16:45	Oral	Room A409
4.3 Nano-and Micro Photonics		Organizer : Tsutomu Shimura (Univ. of Tokyo)	
9/8 (Fri.)	9:00 – 12:45	Oral	Room A409
4.4 Opto-electronics		Organizer : Hiroyuki Ishii (NTT)	
9/6 (Wed.)	13:15 – 18:15	Oral	Room A410
4.5 Information Photonics *Organized as a code-sharing session with 3.3 Information and image engineering		Organizer : Ryoichi Horisaki (Osaka Univ.) / Hirotsugu Yamamoto (Utsunomiya Univ.)	
9/5 (Tue.)	17:15 – 18:30	Oral	Room A413
9/6 (Wed.)	9:00 – 17:15	Oral	Room A409
4.6 Nanocarbon and 2D Materials		Organizer : Kazunari Matsuda (Kyoto Univ.) / Yuhei Miyauchi (Kyoto Univ.)	
9/7 (Thu.)	9:00 – 16:15	Oral	Room A404
4.7 Terahertz Photonics		Organizer : Toshihiko Kiwa (Okayama Univ.)	
9/7 (Thu.)	9:00 – 15:00	Oral	Room A409
※Code-sharing session with 3.9 Terahertz technologies			
9/7 (Thu.)	15:15 – 16:45	Oral	Room A409
4.8 Strong Light Excitation Phenomena Applied to Materials and Bio Engineering		Organizer : Masaaki Sakakura (Kyoto Univ.) / Yoichiro Hosokawa (NAIST)	
9/8 (Fri.)	13:15 – 17:00	Oral	Room A410
4.9 Quantum Optics		Organizer : Takashige Omatsu (Chiba Univ.) / Takuya Hirano (Gakushuin Univ.)	
9/7 (Thu.)	13:15 – 16:45	Oral	Room A410



JSAP-OSA Joint Symposia are all-English sessions.

# JSAP-OSA Joint Symposia 2017

## Invited Speakers

### ■ OSA Vice President Special Lecture

Date	Hour	Room	Title	Speaker
9/6 (Wed.)	13:15~14:15	A410	Semiconductor core fibers for optoelectronics	Ursula Gibson (Norwegian Univ. of Sci. and Tech.)

### ■ 4.1 Plasmnics

Date	Hour	Room	Title	Speaker
9/5 (Tue.)	9:00~9:30	A 410	Imaging Chiral Plasmons	Hiromi Okamoto (Inst. for Mol. Sci.)
	10:45~11:15		Deep-UV Surface Plasmon for Bio-Imaging	Yoshimasa Kawata (Shizuoka Univ.)
	13:15~13:45		Electrical Switching Triggered by Plasmonic Nanoheater	Wakana Kubo (Tokyo Univ. of Agri. and Tech)
	15:45~16:15		Nonlinear Optical Mapping and Spectroscopy of Gap Plasmons in Single Plasmonic Golden Junctions	Dangyuan Lei (Hong Kong Polytechnic Univ.)
9/6 (Wed.)	9:00~9:30	A410	Surface Enhanced Raman Spectroscopic Studies using Galvanic Nano-buds	Siva Umapathy (Indian Inst. of Sci.)

### ■ 4.2 Bio-and Medical Photonics

Date	Hour	Room	Title	Speaker
9/5 (Tue.)	13:15~13:45	A409	Fiber-Assisted Fluorescence Spectral Endoscope	Takashi Katagiri (Tohoku Univ.)
	15:00~15:30		Near Infrared Active Nanomaterials for the Theragnosis of Tumors In Vivo	Tzu-Ming Liu (Univ. of Macau.)

### ■ 4.3 Nano- and Micro-Photonics

Date	Hour	Room	Title	Speaker
9/8 (Fri.)	9:45~10:15	A409	Metamaterial absorbers and thier applications	Takuo Tanaka (RIKEN)
	10:15~10:45		Analytical formulation for field enhancement of gold bipyramids and hemispherically capped cylinders for application in two-photon luminescence and scattering	James W. M. Chon (Swinburne Univ. of Tech.)
	11:45~12:15		A Challenge to Tunable Metamaterial Optical Retarder: Au Nanograting and its Integration with Microelectromechanical Actuators	Kentaro Iwami (Tohoku Univ.)
	12:15~12:45		Optical metasurface for the creation and application of surface plasmon vortices	Chen-Bin (Robin) Huang (Nat. Tsing Hua Univ.)

### ■ 4.4 Opto-electronics

Date	Hour	Room	Title	Speaker
9/6 (Wed.)	14:15~14:45	A410	Very Small Lasers and Resonators	Yong-Hee Le (KAIST)
	14:45~15:15		Progress of Hybrid III-V Lasers on Si and SOI substrates	Nobuhiko Nishiyama (Tokyo Tech.)
	16:00~16:30		Silicon Photonic Devices	Tao Chu (Zhejiang Univ.)
	16:30~17:00		Heterogeneous Lasers with Silicon Photonic External Cavity	Tomohiro Kita (Tohoku Univ.)

### ■ 4.5 Information Photonics \*Organized as a code-sharing session with 3.3 Information Photonics and image engineering

Date	Hour	Room	Title	Speaker
9/5 (Tue.)	17:15~17:45	A413	Optimization Strategy for Designing Computer-Generated Holograms and Diffractive Optical Elements	Wei-Feng Hsu (Nat. Taipei Univ. of Tech.)
9/6 (Wed.)	10:15~10:45	A409	Adaptive Appearance Manipulation for the Installation Art	Toshiyuki Amano (Wakayama Univ.)
	14:30~15:00		Interference-Based Techniques in Superresolution Microscopy	Pakorn Kanchanawong (Nat. Univ. of Singapore)
	16:00~16:30		Light Field Microscopy Combined with Super-resolution Techniques	Shin Usuki (Shizuoka Univ.)

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## Invited Speakers

### ■ 4.6 Nanocarbon and 2D Materials

Date	Hour	Room	Title	Speaker
9/7 (Thu.)	9:00~9:30	A404	Thermal Management and Thermopower Waves by Anisotropic Carbon Nanomaterials	Seunghyun Baik (Sungkyunkwan Univ.)
	10:30~11:00		Optical Spectroscopy of Individual Nano-materials with Defined Atomic Structure	Kaihui Liu (Peking Univ.)
	13:15~13:45		Carbon nanotube films for perovskite solar cells	Shigeo Maruyama (Univ. of Tokyo)
	15:00~15:30		Single-carbon-nanotube photonics and optoelectronics	Yuichiro K. Kato (RIKEN)

### ■ 4.7 Terahertz Photonics

Date	Hour	Room	Title	Speaker
9/7 (Thu.)	9:00~9:30	A409	Ultrastrong Light-Matter Coupling in a High-Q Terahertz Cavity	Junichiro Kono (Rice Univ.)
	9:30~10:00		Enhanced THz Nonlinearity in Graphene and Graphene-based Materials	Fabian Rotermund (KAIST)
	13:15~13:45		Millimeter-wave and terahertz applications enabled by photonics	Tadao Nagatsuma (Osaka Univ.)
	13:45~14:15		Long distance Terahertz pulse propagation through atmosphere	Tae-In Jeon (Korea Maritime and Ocean Univ.)

### ■ 4.8 Strong Light Excitation Phenomena Applied to Materials and Bio Engineering

Date	Hour	Room	Title	Speaker
9/8 (Fri.)	13:15~13:45	A410	Tailored Femtosecond Bessel Beam Processing - Application to Through Si Vias for 3D Si ICs -	Koji Sugioka (RIKEN)
	14:00~14:30		Intense Femtosecond Laser-induced X-ray/Ultrasound Emission From Aqueous Solutions in Air	Koji Hatanaka (Academia Sinica)
	15:15~15:45		Marangoni Flow in Microfluidics Controlled by Laser Heating of Gold Nanoisland Films	Kyoko Namura (Kyoto Univ.)
	16:15~16:45		Space-Selective Modification of Glass by Using Femtosecond Laser	Shifeng Zhou (South China Univ. of Tech.)

### ■ 4.9 Quantum Optics

Date	Hour	Room	Title	Speaker
9/7 (Thu.)	13:15~13:45	A410	Real-time 70 Gbit/s, 128 QAM quantum noise stream cipher transmission over 100 km with secret keys delivered by continuous variable quantum key distribution system	Masataka Nakazawa (Tohoku Univ.)
	13:45~14:15		Complex networks of coherently coupled quantum dynamical systems	Hideo Mabuchi (Stanford Univ.)
	14:15~14:45		Solving intractable problems with coherent Ising machine	Hiroki Takesue (NTT BRL)
	15:30~16:00		Tying Knots in a Quantum Fluid	David S Hall (Amherst College)



Special Lecture of OSA Vice President is scheduled on Sep. 6.

# The Optical Society Congratulates these 2017 Honorees:

## **Emmett N. Leith Medal Winner:**



**Jumpei Tsujiuchi**

For early pioneering work in optical information processing, holography and optical metrology, including the first demonstration of coherent optical processing for image restoration.

## **OSA Fellows:**



**Tetsuya Ishikawa**

RIKEN, Japan

For pioneering work in optics for coherent x-rays and nano-focusing and for outstanding leadership in significantly advancing the technology of compact hard-x-ray free-electron lasers, opening doors to new scientific discoveries.



**Shoji Tominaga**

Chiba University, Japan

For creative contributions to color image science, including applications that span computer vision, computer graphics and vision science. He is an exceptional researcher who has also served the professional community.



**Shinji Yamashita**

RCAST, The University of Tokyo, Japan

For pioneering contributions to fiber lasers, including carbon nanotube and graphene photonics based ultrafast pulse generation and signal processing, and fast wavelength-swept dispersion-tuned lasers for optical coherent tomography.

# English Sessions

8.8 Plasma Electronics English Session			
9/5 (Tue.)	14:30 – 15:00	Oral Session	Room S22
9/8 (Fri.)	9:30 – 11:30	Poster Session	P B (Kokusai Center 2F)
Symposium 「Materials Nano-technology: Surfaces and Interfaces of Thin Films and Nano-composites」			
9/5 (Tue.)	9:00 – 17:30	Oral Session	Room A405
Symposium 「Recent GFIS・advanced ion source microscopy technologies and its future prospects for R & D of materials and devices」			
9/7 (Thu.)	13:45 – 18:00	Oral Session	Room C13

In Category 10 “Spintronics and Magnetism”, more than half of the presentations are in English.

10 Spintronics and Magnetism			
9/7 (Thu.)	16:00 – 18:00	Poster Session	P B (Kokusai Center 2F)
10.1 Emerging materials in spintronics and magnetism (including fabrication and characterization methodologies)			
9/5 (Tue.)	9:00 – 14:45	Oral Session	Room C18
10.2 Fundamental and exploratory device technologies for spin			
9/6 (Wed.)	9:00 – 12:00	Oral Session	Room C18
9/7 (Thu.)	9:00 – 11:15	Oral Session	Room C18
10.3 Spin devices, magnetic memories and storages			
9/7 (Thu.)	11:15 – 12:00	Oral Session	Room C18
9/8 (Fri.)	9:00 – 10:45	Oral Session	Room A413
10.4 Semiconductor spintronics, superconductor, multiferroics			
9/8 (Fri.)	10:45 – 14:45	Oral Session	Room A413
10.5 Application of magnetic field			
9/5 (Tue.)	9:00 – 11:30	Oral Session	Room C24
10.1,10.2,10.3 code-sharing session			
9/5 (Tue.)	14:45 – 19:00	Oral Session	Room C18