

10月30日(日)【A会場】

10:20 - 12:00

**OSJ - OSA Joint Symposia
Plasmonics (1)**

Chair: D. J. Norris

- 30aOP1 [Invite 1]**
Dissecting deformation dynamics of femtosecond surface plasmon wave packet
○Atsushi Kubo
Tsukuba University
- 30aOP2 [Invite 2]**
Tunable plasmonic resonances for wider wavelength range
○Koichi Okamoto
Institute for Materials Chemistry and Engineering,
Kyushu University
- 30aOP3**
Nonlinear vibrational spectroscopy by using enhanced ultrashort-pulsed field
○Ikki Morichika¹, Fumiya Kusa²,
Akinobu Takegami², Satoshi Ashihara¹
¹IIS, the Univ. of Tokyo, ²Tokyo Univ. of
Agriculture and Technology
- 30aOP4**
Plasmonically-induced optical force spectroscopy of gold nanodimer
○Taka-Aki Yano, Masahiko Hara
Tokyo Institute of Technology

13:00 - 15:00

**OSJ - OSA Joint Symposia
Plasmonics (2)**

Chair: S. Ashihara

- 30pOP1 [Invite 3]**
Near-field imaging of plasmons: field structures, propagation dynamics, chirality
○Hiromi Okamoto^{1,2}
¹Institute for Molecular Science, National
Institutes of Natural Sciences, ²The Graduate
University for Advanced Studies (Sokendai)
- 30pOP2 [Invite 4]**
Plasmonic antenna for confining optical vortex into nano-space
○Keiji Sasaki
RIES, Hokkaido University
- 30pOP3**
Localised Plasmonic Resonances of Nanoring Apertures for Nanoparticle Trapping
○Viet Giang Truong, Han Xue, Gurkan Ozer Aysen,
Sergides Marios, Nic Chormaic SÍLe
OIST Graduate University
- 30pOP4**
Fast imaging the single nanoparticle and virus by using surface Plasmon scattering
○Xinchao Lu, Hongyao Liu, Xuqing Sun,
Yaqin Chen, Xiong Wei
Institute of Microelectronics of Chinese Academy
of Sciences

- 30pOP5**
Nano-particle trapping using a plasmonic trimer structure and its motion analysis
○Shutaro Ishida, Keiji Sasaki
RIES, Hokkaido Univ.
- 30pOP6**
An Alternative Technique for High-sensitive Molecular Detection based on Plasmonic Optical Trapping of Thermo-responsive Polymer Chains
Tatsuya Shoji¹, Daiki Sugo¹, Taka-Aki Asoh¹,
Yumi Wakisaka², Kei Murakoshi², Yasuyuki Tsuboi¹
¹Osaka City Univ., ²Hokkaido Univ.

15:30 - 17:00

**OSJ - OSA Joint Symposia
Plasmonics (3)**

Chair: A. Roberts

- 30pOP7 [Invite 5]**
Gate Tunable Light-Matter Interactions at the Nanoscale: Dynamical Control of Phase Modulation, Absorption, Emission and Scattering
○Yu-Jung Lu, Harry A. Atwater
California Institute of Technology
- 30pOP8 [Invite 6]**
Colloidal quantum-dot spasers and plasmonic amplifiers
○David J. Norris
Optical Materials Engineering Laboratory,
ETH Zurich
- 30pOP9**
Multipole rotation in spherical Ag particles observed by cathodoluminescence
Takumi Sannomiya, Zac Thollard,
Naoki Yamamoto
Tokyo Institute of Technology
- 30pOP10**
Dual Peptide Modified Nanoprobes for SERS-Fluorescence Joint Cancer Cell Imaging with Improved Targeting Efficiency
○Zhang Yizhi, Zhuyuan Wang, Wu Lei,
Yiping Cui
Advanced Photonics Center, Southeast University,
Nanjing, Jiangsu

17:00 - 17:45

**OSJ - OSA Joint Symposia
Plenary Session**

Chair: T. Omatsu

- 30pPL1**
Plasmonic growth of plasmonic metamaterials
○Satoshi Kawata
Osaka University, Japan

10月30日(日)【C会場】**10:20 - 12:00****OSJ - OSA Joint Symposia
Digital Photonics (1)
Computational Imaging**
Chair: B. Javidi

- 30aOD1 **【Invite 1】
Computational Imaging for extended depth-of-field in microscopy**
○Harvey Andy, Zammit Paul, Carles Guillem, Yongzhuang Zhou, Taylor Jonny
School of Physics and Astronomy, University of Glasgow
- 30aOD2 **【Invite 2】
Holographic sensing through randomized diffraction**
○Ryoichi Horisaki
Graduate School of Information Science and Technology, Osaka University
- 30aOD3 **【Invite 3】
Recent Advances in Macroscopic Fourier Ptychography**
○Oliver Cossairt¹, Jason Holloway², Ashok Veeraraghavan², Nathan Matsuda¹, Manoj Sharma¹, Salman Asif¹, Roarke Horstmeyer³, Yicheng Wu¹
¹Northwestern University, ²Rice University, ³Charite/Humbolt University

13:00 - 15:00**OSJ - OSA Joint Symposia
Digital Photonics (2)
Holography and 3D Imaging**
Chair: O. Matoba

- 30pOD1 **【Invite 4】
Automated disease identification with 3D optical imaging and processing based bio-photonics sensors**
Bahram Javidi¹, Arun Anand², ○Inkyu Moon³
¹University of Connecticut, ²The MS University of Baroda, ³Chosun University
- 30pOD2 **【Invite 5】
Holographically-modulated femtosecond laser pulses and their applications**
○Yoshio Hayasaki
Utsunomiya Univ. CORE
- 30pOD3 **New configuration of Incoherent digital holography by dual focal lenses with grating**
○Xiangyu Quan^{1,2}, Osamu Matoba¹, Yasuhiro Awatsuji³
¹Kobe Univ., ²JSPS research Fellow, ³Kyoto institute of technology
- 30pOD4 **Investigation of super-resolution processing algorithm by performing target light intensity search in digital holography**
○Atsushi Neo, Takashi Kakue, Tomoyoshi Shimobaba, Tomoyoshi Ito
Graduate School of Engineering, Chiba University

- 30pOD5 **Single shot high resolution digital holographic microscopy**
○Singh Mandeep, Khare Kedar
Indian Institute of Technology Delhi
- 30pOD6 **Ultra-high-speed holographic printer system for the photopolymer and evaluation of fabricated HOE's characteristics**
○Tomoyasu Saigo¹, Hideyoshi Horimai², Ryo Taguchi¹, Taizo Umezaki¹
¹Nagoya Institute of Technology, ²Holy Mine Ltd.

15:30 - 17:00**OSJ - OSA Joint Symposia
Digital Photonics (3)
3D Display**
Chair: R. Horisaki

- 30pOD7 **【Invite 6】
Integration of holography and light-field displays for enriched visual experience**
○Masahiro Yamaguchi
Tokyo Institute of Technology
- 30pOD8 **【Invite 7】
Optical-Brian Stimulation (OBS) for Functional Visual Loss Detection by using Virtual Reality System**
○Yi-Pai Huang¹, Fang-Cheng Lin¹, Yu-Yi Chien¹, Yu-Te Wang², John K. Zao¹, Tzyy-Ping Jung², Felipe A. Medeiros³
¹National Chiao Tung University, HsinChu, ²Swartz Center for Computational Neuroscience, University of California San Diego, ³Visual Performance Laboratory, Department of Ophthalmology, University of California San Diego
- 30pOD9 **Compensation of aberrations for collimated multi-layer displays**
○Soon-Gi Park, Yasuhiro Takaki
Tokyo University of Agriculture and Technology
- 30pOD10 **Forming multiple aerial images by use of parallel beam splitters with AIRR**
○Nao Kurokawa, Hirotsugu Yamamoto
Utsunomiya University

10月31日(月)【A会場】**9:00 - 10:30****OSJ - OSA Joint Symposia
Plasmonics (4)**
Chair: S. Gwo

- 31aOP1 **Plasmonic properties of phase separated Ag-Cu nanoparticles**
○Carl Wadell¹, Akira Yasuhara², Takumi Sannomiya¹
¹Tokyo Institute of Technology, ²JEOL Ltd.

**31aOP2 Illumination of optical vortex structures
monocrystalline silicon microsphere**

○Alimeti Abulizi¹, Fujiwara Honami¹, Izumisawa Kai¹,
Katsuhiko Miyamoto¹, Ryuji Morita³,
Takashige Omatsu^{1,2}

¹Graduate School of Advanced Integration
Science, Chiba University, ²Molecular Chirality
Research Center, Chiba University, ³Faculty of
Applied Physics, Hokkaido University

**31aOP3 Optical Fabrication of Single-Crystalline
Microspheres with High Sphericity**

Tomoya Oguni, Yosuke Minowa,
○Masaaki Ashida

Graduate School of Engineering Science,
Osaka University

**31aOP4 Twisted microfiber photo-polymerized
by ultraviolet optical vortex irradiation**

Junhyung Lee¹, Shunsuke Toyoshima¹,
Katsuhiko Miyamoto^{1,3}, Yoshihiko Arita^{2,3},
Kishan Dholakia², Takashige Omatsu^{1,3}

¹Graduate School of Advanced Integration
Science, Chiba University, ²School of Physics
and Astronomy, University of St. Andrews,
³Molecular Chirality Research Center, Chiba
University

**31aOP5 Optical spin angular momentum enables
the formation of chiral surface relief in
azo-polymer film**

○Keigo Masuda¹, Shogo Nakano¹,
Guzhaliayi Juman¹, Itsuki Yoshida¹,
Daisuke Barada^{2,3}, Katsuhiko Miyamoto^{1,4},
Takashige Omatsu^{1,4}

¹Graduate School of Advanced Integration
Science, Chiba University, ²Graduate School
of Engineering, Utsunomiya University,
³Center for Optical Research and Education
(CORE), Utsunomiya University, ⁴Molecular
Chirality Research Center, Chiba University

**31aOP6 The generations of chiral optical near-fields
with non-chiral plasmonic nanostructures**

○Shun Hashiyada, Tetsuya Narushima,
Hiromi Okamoto

The Graduate University for Advanced Studies
and Institute for Molecular Science

11:00 - 12:00

**OSJ - OSA Joint Symposia
Plasmonics (5)**

Chair: K. Sasaki

**31aOP7 [Invite 7]
Plasmonic metasurfaces for optical field
sensing and information processing**

○Ann Roberts
School of Physics, The University of
Melbourne

**31aOP8 [Invite 8]
Plasmonic metasurfaces for linear and
nonlinear optics**

○Shangjr Gwo
National Tsing-Hua University

14:00 - 15:15

**OSJ - OSA Joint Symposia
Plasmonics (6)**

Chair: Atsushi Kubo

**31pOP1 SERS imaging of alkyne-tagged small
molecule in cells with gold nanoparticles**

○Jun Ando¹, Takumasa Sekiya¹, Den Ka¹,
Hiroyuki Yamakoshi², Kosuke Dodo²,
Mikiko Sodeoka², Satoshi Kawata¹,
Katsumasa Fujita¹

¹Department of Applied Physics, Osaka
University, ²RIKEN

**31pOP2 High-Sensitivity Detection of Target
DNA by Digital Counting of Gold
Nanoparticle Dimers**

○Takaha Mizuguchi, Keiko Esashika,
Toshiharu Saiki
Keio University

**31pOP3 Manipulation of Phase Transition by
Plasmons**

○Wakana Kubo

Tokyo University of Agriculture and Technology

**31pOP4 Plasmonic-Optical-Trapping of DNA:
A Possible Application for Plasmonic
Chromatography**

○Yasuyuki Tsuboi¹, Kenta Itoh¹, Tatsuya Shoji¹,
Takahiro Yoshi-I², Kei Murakoshi²

¹Osaka City Univ., ²Hokkaido Univ.

**31pOP5 Micro-patterning of Cyanobacteria based
on Plasmon-induced Microbubble Formation**

Shota Naka¹, Tatsuya Shoji¹, Yumi Wakisaka²,
Kei Murakoshi², Tadashi Mizoguchi³,
Hitoshi Tamiaki³, Yasuyuki Tsuboi¹

¹Osaka City Univ., ²Hokkaido Univ.,
³Ritsumeikan Univ.

10月31日(月)【C会場】

9:00 - 10:30

**OSJ - OSA Joint Symposia
Digital Photonics (4)
Bioimaging**

Chair: Harvey Andy

**31aOD1 [Invite 8]
Computational analysis of light
propagation in the head for diffuse
optical imaging of brain function**

○Eiji Okada¹, Kazuki Kurihara¹,
Hiroshi Kawaguchi², Takayuki Obata³

¹Keio University, ²National Institute of Advanced
Industrial Science and Technology, ³National
Institute of Radiological Sciences

**31aOD2 Image recovery of fluorescence light
from phase hologram in multi-modal
digital holographic microscopy**

○Xiangyu Quan^{1,2}, Osamu Matoba¹,
Yasuhiro Awatsujii³

¹Kobe Univ., ²JSPS research Fellow, ³Kyoto institute of
technology

31aOD3 Resolution Analysis of DMD-based Compressive LIDAR Imaging

○Jun Ke

Beijing Institute of Technology

31aOD4 In vivo estimation of spontaneous low-frequency oscillations in cerebral hemodynamics with time-series red-green-blue images

○Afrina Mustari¹, Naoki Nakamura¹, Izumi Nishidate¹, Satoko Kawauchi², Shunichi Sato², Manabu Sato³, Yasuaki Kokubo⁴

¹Graduate School of Bio-Applications & Systems Engineering, Tokyo University of Agriculture and Technology, ²Division of Biomedical Information Sciences, National Defense Medical College Research Institute, ³Graduate School of Science and Engineering, Yamagata University, ⁴Department of Neurosurgery, Yamagata University Faculty of Medicine

31aOD5 Evaluation of hemodynamics and tissue morphology in rat liver during ischemia-reperfusion based on spectrocolorimetry

○Sharmin Akter¹, Satoko Kawauchi², Shunichi Sato², Suefumi Aosasa³, Junji Yamamoto³, Izumi Nishidate¹

¹Graduate School of Bio-Applications & Systems Engineering, Tokyo University of Agriculture and Technology, ²Division of Biomedical Information Sciences, National Defense Medical College, ³Department of Surgery, National Defense Medical College

11:00 - 12:00

**OSJ - OSA Joint Symposia
Digital Photonics (5)
Profilometry and Imaging**

Chair: Yi-Pai Huang

31aOD6 Tunable laser-diode digital holography and its applications to surface profilometry

○Takeshi Takahashi¹, Ribun Onodera¹, Yukihiro Ishii²

¹Department of Electronic Information Engineering, Polytechnic University, ²Department of Applied Physics, Tokyo University of Science

31aOD7 Development of Fast Acquisition 3D Profilometer using Structured Light Projection

○Naila Zahra, Suprijanto Suprijanto, Endang Juliastuti
Engineering Physics, Institut Teknologi Bandung, Indonesia

31aOD8 Enhancement of temporal resolution by a compound-eye image capturing system with a rolling shutter image sensor

○Daisuke Miyazaki, Takehiro Ebata, Kodai Wakabayashi, Takaaki Mukai
Osaka City University, Graduate School of Engineering

31aOD9 Inverse encoding in double-phase hologram generated by a phase-only spatial light modulator

○Teruyoshi Nobukawa¹, Takanori Nomura²

¹Graduate School of Systems Engineering, Wakayama University, ²Faculty of Systems Engineering, Wakayama University

14:00 - 15:15

**OSJ - OSA Joint Symposia
Digital Photonics (6)
Digital Photonics
Chair: Oliver Cossairt**

31pOD1 Aerial dual-view display by use of polarized AIRR

○Shusei Ito, Keitaro Uchida, Hirotsugu Yamamoto
Utsunomiya University

31pOD2 Reducing optical path in aerial imaging by retro-reflection (AIRR)

○Shogo Morita, Ryosuke Kuzime, Hirotsugu Yamamoto
Utsunomiya University

31pOD3 Modelling of microcirculation structure in mouse cortex for measurement of blood volume change by optical imaging

○Yuji Yamamoto¹, Yoshimori Yu¹, Hiroyuki Takuwa², Hiroshi Kawaguchi³, Eiji Okada¹

¹Keio University, ²National Institute of Radiological Sciences, ³National Institute of Advanced Industrial Science and Technology

31pOD4 S-wave plate for generating vector vortex beams and its characterization

○Salla Gangi Reddy, Yoko Miyamoto
The University of Electro-Communications

31pOD5 Three-wavelength phase-shifting digital holography using six wavelength-multiplexed holograms and 2n ambiguity of the phase

○Tatsuki Tahara¹, Yasuhiko Arai¹, Yasuhiro Takaki²

¹Kansai University, ²Tokyo University of Agriculture and Technology

10月31日(月)【P会場】

13:00 - 14:00

**OSJ - OSA Joint Symposia
Plasmonics (Poster Session)**

31pOPP1 Fabrication of plasmonic modulator using the micro displacement MEMS

○Takahiro Kaji, Toshihiro Okamoto, Masanobu Haraguchi
Tokushima University

31pOPP2 Synthesis of Au-Based Alloy Nanoparticles via Ionic Liquid/Metal Sputtering and Their Application to Plasmonic Photosensitization

○Tatsuya Kameyama¹, Eisaku Kumazawa¹,
Susumu Kuwabata², Tsukasa Torimoto¹
¹Nagoya University, ²Osaka University

31pOPP3 Crystallization of NaClO₃ metastable phase from unsaturated mother solution achieved by excitation of plasmonic Au nanoarray

○Hiromasa Niinomi¹, Teruki Sugiyama²,
Miho Tagawa³, Toru Ujihara³, Yusuke Mori⁴,
Shunta Harada³, Kenta Murayama³,
Katsuhiko Miyamoto¹, Takashige Omatsu¹
¹Molecular Chirality Research Center (MCRC),
Graduate School of Advanced Integration Science,
Chiba University, ²Department of Applied Chemistry,
National Chiao Tung University, ³Institute of
Materials and Systems for Sustainability (IMaSS),
Nagoya University, ⁴Department of Electrical,
Electronic and Information Engineering, Osaka
University

13:00 - 14:00
OSJ - OSA Joint Symposia
Digital Photonics (Poster Session)

31pODP1 Visual and thermal aerial display by use of a parabolic mirror

○Hitomi Horie, Tomoyuki Okamoto,
Hirotsugu Yamamoto
Utsunomiya University

31pODP2 Development of holographic micro-information hiding

○Takayuki Takahashi, Tomoyoshi Shimobaba,
Takashi Kakue, Tomoyoshi Ito
Graduate School of Engineering, Chiba University

31pODP3 Evaluation of Reduced Scattering Coefficient of Artificial Scattering Medium with Shifted and Layered Random Void Distributions

Noriyuki Nakatani¹, Osamu Matoba¹,
Masaharu Hyodo²
¹Kobe University, ²Kanazawa University