

ALPS2018 Program

(30 Mar. 2018)

ALPS2018 presentation numbers are defined as ALPS<#1>-<x><#2>-<#3>.

The number <#1> indicates the session order in ALPS2018 conference.

The letter <x> indicates the session topics.

The number <#2> indicates the session order of the topics <x>.

The number <#3> indicates the presentation order in the session.

Letter	Session	Topics
A.	ALPS3-A	Novel optical materials/structure and applications
B.	ALPS1-B	High average power lasers and applications
C.	ALPS12-C1 ALPS14-C2 ALPS17-C3	High peak power lasers, high pulse energy lasers and applications
D.	ALPS10-D1 ALPS13-D2	Novel solid state / fiber / diode lasers and applications
E.	ALPS4-E1 ALPS6-E2	ELI special session in ALPS2018
F.	ALPS15-F1 ALPS16-F2	Terahertz devices, nonlinear optics and applications
G.	ALPS9-G1 ALPS11-G2	Novel optical devices, metamaterials, structure and applications
H.	ALPS2-H	Optical devices and techniques for bio and medical applications
I.	ALPS5-I1 ALPS7-I2	Optical frequency combs / Frequency stabilized lasers and applications
J.	ALPS8-J	Joint session ALPS+HEDS+XOPT ALPS8-J-1 (HEDSj-1) ALPS8-J-2 (ALPSj-1) ALPS8-J-3 (XOPTj-1)
p.	ALPSp	Poster session

ALPS2018 Program-at-a-glance

Date	Time	Room 303	Room 511+512
Tue 24 Apr.		Opening Remarks	
	09:00-09:30	ALPS1-B High power lasers	-
	09:30-10:00		
	10:00-10:30		
	10:30-11:00	Break	Break
	11:00-11:30	ALPS2-A Biomedical Imaging and Sensing	ALPS3-H Novel optical materials/structures and application
	11:30-12:00		
	12:00-12:30	Lunch	
	12:30-13:00	Lunch	
	13:00-13:30	ALPS4-E1 Extreme Light Infrastructure 1	ALPS5-I1 Optical Frequency Comb (Light Source)
	13:30-14:00		
	14:00-14:30		
	14:30-15:00		
	15:00-15:30	Break	Break
	15:30-16:00	ALPS6-E2 Extreme Light Infrastructure 2	ALPS7-I2 Optical Frequency Comb (Applications)
16:00-16:30			
16:30-17:00			
17:00-17:30			

Date	Time	Room 303	Room 511+512
Wed 25 Apr.	09:00-12:10	OPIC Plenary Session Room 501+502	
	12:10-12:30	Lunch	
	12:30-13:00	Lunch	
	13:00-13:30	ALPS8-J Joint Session ALPS+HEDS+XOPT	ALPS9-G1 Diode laser and metamaterials
	13:30-14:00		
	14:00-14:30		
	14:30-15:00		
	15:00-15:30	Break	Break
	15:30-16:00	ALPS10-D1 Semiconductor Lasers and Ultrafast Fiber Lasers	ALPS11-G2 Nano structure and applications
	16:00-16:30		
16:30-17:00			

Date	Time	Room 303	Room 511+512	
Thu 26 Apr.	09:00-09:30	ALPS12-C1 Ultra-high intensity lasers and technology	ALPS13-D2 Visible and Mid-infrared Lasers	
	09:30-10:00			
	10:00-10:30			
	10:30-11:00			
			Break	
	11:00-11:30	ALPS14-C2 High energy lasers and technology	ALPS15-F1 Terahertz photonics1	
	11:30-12:00			
	12:00-12:30	Lunch		
	12:30-13:00			
	13:00-13:30	ALPSp Poster session Exhibition Hall A		
	13:30-14:00			
	14:00-14:30			
	14:30-15:00	Exhibition Time		
	15:00-15:30			
15:30-16:00				
16:00-16:30				
16:30-17:00				

Date	Time	Room 303	Room 511+512
Fri 27 Apr.	09:00-09:30	-	-
	09:30-10:00		ALPS16-F2 Terahertz photonics 2
	10:00-10:30		
	10:30-11:00		Break
	11:00-11:30		ALPS17-C3 Ultrafast Phenomena
	11:30-12:00		Closing Remarks
	12:00-12:30		Award Ceremony



Tuesday, 24th April 2018, Room 303

Opening Remarks

9:00 - 9:15 Room 303

Hitoki Yoneda

Institute for Laser Science, The University of Electro-Communications (UEC), Japan

ALPS1-B High Power Lasers

9:15 - 10:30 Room 303

Chair: Fumihiko Kannari

Department of Electronics and Electrical Engineering, Keio University, Japan

ALPS1-B-1 High Average Power and High Energy Ultrafast Thin-Disk Amplifiers

invited

9:15

Catherine Y. Teisset¹, Christoph Wandt¹, Marcel Schultze¹, Sandro Klingebiel¹,
Stephan Prinz¹, Sebastian Stark¹, Christian Grebing¹, Jan-Philipp Negel², Helge Höck²,
Michael Scharun², Thomas Dietz², Dominik Bauer², Aleksander Budnicki²,
Christian Stolzenburg², Dirk Sutter², Alexander Killi², Thomas Metzger¹

1. TRUMPF Scientific Lasers GmbH + Co. KG, Germany, 2. TRUMPF Laser GmbH, Germany.

ALPS1-B-2 Graphene and Voltage Reconfigurable Graphene Devices for Femtosecond Pulse Generation in the Near Infrared

invited

9:45

Alphan Sennaroglu^{1,2}, Isinsu Baylam², Ferda Canbaz¹, Nurbek Kakenov³, Coskun
Kocabas³, Umit Demirbas⁴, Sarper Ozharar⁵

1. Laser Research Laboratory, Departments of Physics and Electrical-Electronics Engineering, Koç University, Turkey, 2. Koç University Surface Science and Technology Center (KUYTAM), Koç University, Turkey, 3. Department of Physics, Bilkent University, Turkey, 4. Department of Electrical and Electronics Engineering, Antalya Bilim University, Turkey, 5. College of Engineering and Natural Sciences, Bahçeşehir University, Turkey.

ALPS1-B-3 Kungang laser: stimulated Brillouin scattering phase conjugate mirrors (SPC-SBS-PCM) for high repetition rate lasers towards the coherent beam combining

10:15

Hong Jin Kong, Seongwoo Cha

Department of physics, KAIST, Korea.

-----Break (10:30 - 11:00) -----

ALPS2-H Biomedical Imaging and Sensing

11:00 - 12:00 Room 303

Chair: Masayuki Suzuki

Faculty of Medicine, Aichi Medical University, Japan

ALPS2-H-1 Development of depth-sensitive optical spectroscopy

invited

11:00

Quan Liu, Joshua Su Weiming, Chao-Mao Hsieh

School of Chemical and Biomedical Engineering, Nanyang Technological University, Singapore.

ALPS2-H-2 3D high-resolution spectral-domain optical coherence microscopy at 1700 nm spectral band for deep tissue imaging

11:30

Naoki Hayakawa¹, Masahito Yamanaka¹, Hiroyuki Kawagoe¹, Shuichi Makita², Yoshiaki Yasuno², Norihiko Nishizawa¹

1. Dept. Electronics, Nagoya University, Japan, 2. Computational Optics Group, University of Tsukuba, Japan.

ALPS2-H-3 Mid Infrared Cavity Ring-Down Spectroscopy for Radiocarbon Analysis toward Medical Applications

11:45

Ryohei Terabayashi¹, Volker Sonnenschein¹, Hideki Tomita¹, Noriyoshi Hayashi¹, Shusuke Kato¹, Shin Takeda¹, Lei Jin¹, Masahito Yamanaka¹, Norihiko Nishizawa¹, Atsushi Sato², Kenji Yoshida², Kohei Nozawa², Tetsuo Iguchi¹

1. Graduate School of Engineering, Nagoya University, Japan, 2. Drug Development Solutions Center, Sekisui Medical Co. Ltd., Japan.

-----Lunch (12:00 - 13:00) -----

ALPS4-E1 Extreme Light Infrastructure 1

13:00 - 15:00 Room 303

Chair: Katsumi Midorikawa

RIKEN Center for Advanced Photonics, Japan

ALPS4-E1-1 Paving the Way towards Novel Applied and Fundamental Sciences with ELI-Beamlines

invited

13:00

Sergei V. Bulanov^{1,2}

1. Institute of Physics AS CR, v.v.i (FZU), ELI-Beamlines, Czech Republic, 2. Kansai Photon Science Institute, National Institutes for Quantum and Radiological Science and Technology (QST), Japan.

ALPS4-E1-2 Laser-based research technologies at ELI-ALPS

invited

13:30

Karoly Osvay, A. Borzsonyi, D. Charalambidis, E. Cormier, L. Fulop, M. Kalashnikov, Ch. Kamperidis, B. Kiss, R. Lopez-Martens, G. Sansone, Z. Várallyay, K. Varju
ELI-ALPS, ELI-Hu Nkft, Hungary.

ALPS4-E1-3
invited

ELI-NP Status and Plan

Kazuo A. Tanaka
ELI-NP/IFIN-HH, Romania.

14:00

ALPS4-E1-4
invited

High Power Laser Development and its application for High Energy Density Science

Ryosuke Kodama
Osaka University, Japan.

14:30

-----Break (15:00 - 15:15) -----

ALPS6-E2 Extreme Light Infrastructure 2

15:15 - 17:15 Room 303

Chair: Kazuo A. Tanaka

ELI-NP/IFIN-HH, Romania

ALPS6-E2-1
invited

High Harmonic Generation and Attosecond Science at RIKEN

Katsumi Midorikawa
RIKEN Center for Advanced Photonics, Japan.

15:15

ALPS6-E2-2
invited

Laser-driven Particle Acceleration and Ultra-short X-Ray Generation using PW-class High Power Lasers

Tetsuya Kawachi
Kansai Photon Science Institute (KPSI), Quantum Beam Science Directorate, National Institutes for Quantum and Radiological Science and Technology (QST), Japan.

15:45

ALPS6-E2-3
invited

The ELI-ERIC: status, agreements and basic rules

Florian Gliksohn
ELI Delivery Consortium, Belgium.

16:15

ALPS6-E2-4
invited

Photon Frontier Network Opening Frontiers by Complete Control of Light and Matter

Yoshiaki Kato¹, Ryosuke Kodama², Norikatsu Mio³
1. The Graduate School for Creation of New Photonics Industries, Japan, 2. Institute of Laser Engineering, Osaka University, Japan, 3. Institute for Photon Science and Technology, School of Science, University of Tokyo, Japan.

16:45



Tuesday, 24th April 2018, Room 511+512

ALPS3-A Novel Optical Materials/Structures and Application

10:45 - 12:00 Room 511+512

Chair: Sunao Kurimura

National Institute for Materials Science, Japan

Yoichi Sato

Institute for Molecular Science, National Institutes of Natural Sciences, Japan

ALPS3-A-1 QPM devices in KTP isomorphs: linear, nonlinear absorption properties and extreme domain aspect-ratios

invited

10:45

Carlota Canalias, Andrius Zukauskas, Staffan Tjörnhammar, Anne-Lise Viotti, Charlotte Liljestrand, Valdas Pasiskevicius, Fredrik Laurell

Applied Physics department, KTH Royal Institute of Technology, Albanova University Center, Sweden.

ALPS3-A-2 Mg:SLT-based nonlinear optical light sources for down conversion

11:15

Sunao Kurimura¹, Ryo Okamoto², Shigeki Takeuchi²

1. National Institute for Materials Science, Japan, 2. Kyoto University, Japan.

ALPS3-A-3 Design of magnetic anisotropy in micro domains for Yb:Fluoroapatite Laser Ceramics

11:30

Yoichi Sato, Jun Akiyama, Takunori Taira

Institute for Molecular Science, National Institutes of Natural Sciences, Japan.

ALPS3-A-4 Vertical cavity lasing from CH₃NH₃PbCl₃ microcrystals under multiphoton excitation

11:45

Decheng Yang, Chao Xie, Feng Yan, Siu Fung Yu

Department of Applied Physics, The Hong Kong Polytechnic University, China.

-----Lunch (12:00 - 13:00) -----

ALPS5-I1 Optical Frequency Comb (Light Source)

13:00 - 15:00 Room 511+512

Chair: Hajime Inaba

National Institute of Advanced Industrial Science and Technology, Japan

ALPS5-I1-1 Optical frequency combs: From lab-scale to chip-scale

invited

13:00

Scott A. Diddams^{1,2}

1. National Institute of Standards and Technology, USA, 2. Department of Physics, University of Colorado, USA.

- ALPS5-I1-2**
13:30 **Er-doped Bi-directional Dual-comb Fiber Laser With Single-walled Carbon Nanotube Film**
Shuto Saito¹, Lei Jin¹, Yoichi Sakakibara², Emiko Omoda², Hiromichi Kataura², Norihiko Nishizawa¹
1. Department of Electronics, Nagoya University, Japan, 2. National Institute of Advanced Industrial Science and Technology (AIST), Japan.
- ALPS5-I1-3**
13:45 **Evaluation of Broadband Coherence of Bidirectional Mode-Locked Er-Fiber Laser with Two Saturable Absorber Mirrors**
Yoshiaki Nakajima^{1,2}, Yuya Hata¹, Kaoru Minoshima^{1,2}
1. Department of Engineering Science, Graduate School of Informatics and Engineering, the University of Electro-Communications, Japan, 2. Japan Science and Technology Agency (JST), ERATO MINOSHIMA Intelligent Optical Synthesizer (IOS) Project, Japan.
- ALPS5-I1-4**
14:00 **All-Polarization-Maintaining Dual-wavelength mode-locked Er-fiber laser with nonlinear amplifying loop mirror**
Yoshiaki Nakajima^{1,2}, Yuya Hata¹, Kaoru Minoshima^{1,2}
1. Department of Engineering Science, Graduate School of Informatics and Engineering, the University of Electro-Communications, Japan, 2. Japan Science and Technology Agency (JST), ERATO MINOSHIMA Intelligent Optical Synthesizer (IOS) Project, Japan.
- ALPS5-I1-5**
14:15 **Mid-infrared Frequency Comb Based on Er-doped Ultrashort Pulse Fiber Laser System and Tm-doped Fiber Amplifier**
Kento Mochizuki¹, T. Masahumi¹, L. Jin¹, M. Yamanaka¹, V. Sonnenschein¹, H. Tomita¹, T. Iguchi¹, A. Sato², K. Hashizume², K. Nozawa², N. Nishizawa¹
1. Nagoya University, Japan, 2. Sekisui Medical Co. Ltd., Japan.
- ALPS5-I1-6**
14:30 **Single-frequency narrow-linewidth lasing and Kerr soliton microcomb generation with a regular laser diode**
Nikolay G. Pavlov^{1,2}, G.V. Lihachev^{2,3}, A.S. Voloshin², S. Koptyaev⁴, M.L. Gorodetsky^{2,3}
1. Moscow Institute of Physics and Technology, Russia, 2. Russian Quantum Center, Russia, 3. Lomonosov Moscow State University, Russia, 4. Samsung R&D Institute Russia, SAIT-Russia Laboratory, Russia.
- ALPS5-I1-7**
14:45 **Nonlinear Parametric Oscillation Phase-matched via High-order Dispersion in High-Q Silica Toroid Microresonators**
Shun Fujii, Minori Hasegawa, Ryo Suzuki, Takasumi Tanabe
Department of Electronics and Electrical Engineering, Faculty of Science and Technology, Keio University, Japan.

-----Break (15:00 - 15:30) -----

ALPS7-I2 Optical Frequency Comb (Applications)

15:30 - 17:00 Room 511+512

Chair: Scott Diddams

National Institute of Standards and Technology, USA

- ALPS7-I2-1** **Ultrafast Photonics for Precision Optical Measurement and Instrumentation**
invited
15:30 Seung-Woo Kim
Korea Advanced Institute of Science and Technology (KAIST), Korea.
- ALPS7-I2-2** **Mid-Infrared Frequency Comb Working at 4500 nm Based on Yb-doped Fiber Laser for CRDS Application**
16:00
Lei Jin¹, V. Sonnenschein¹, R. Terabayashi¹, N. Hayashi¹, S. Sato¹, M. Yamanaka¹, H. Tomita¹, T. Iguchi¹, A. Sato², K. Nozawa², K. Yoshida², N. Nishizawa¹
1. Dpet. Electronics, Nagoya University, Japan, 2. Sekisui Medical Co. Ltd., Japan.
- ALPS7-I2-3** **No-scanning 3D image detection with sum-frequency generation of optical frequency combs**
16:15
Yurina Tanaka^{1,2}, Takashi Kato^{1,2}, Megumi Uchida^{1,2}, Akifumi Asahara^{1,2}, Kaoru Minoshima^{1,2}
1. The University of Electro-Communications (UEC), Japan, 2. Japan Science and Technology Agency (JST), ERATO MINOSHIMA Intelligent Optical Synthesizer (IOS) Project, Japan.
- ALPS7-I2-4** **One-shot three-dimensional imaging with a paired filter and an optical pseudo-Hilbert transform using chirped-frequency combs**
16:30
Takashi Kato^{1,2}, Megumi Uchida^{1,2}, Yurina Tanaka^{1,2}, Kaoru Minoshima^{1,2}
1. The University of Electro-Communications (UEC), Japan, 2. JST, ERATO MINOSHIMA Intelligent Optical Synthesizer (IOS), Japan.
- ALPS7-I2-5** **Simultaneous measurement of refractive index and thickness profiles of solids based on dual-comb spectroscopy**
16:45
Yue Wang^{1,2}, Akifumi Asahara^{1,2}, Ken-ichi Kondo^{1,2}, Kaoru Minoshima^{1,2}
1. The University of Electro-Communications (UEC), Japan, 2. Japan Science and Technology Agency (JST), ERATO MINOSHIMA Intelligent Optical Synthesizer (IOS) Project, Japan.



Wednesday, 25th April 2018, Room 303

ALPS8-J Joint session ALPS+HEDS+XOPT

13:30 - 15:00 Room 303

Chairs: Ryosuke Kodama

Osaka University, Japan

Hitoki Yoneda

Institute for Laser Science, The University of Electro-Communications (UEC), None

Makina Yabashi

RIKEN SPring-8 Center, Japan

ALPS8-J-1 **Manipulating Electrons with Intense Laser Pulses**

(HEDSj-1)

Victor Malka^{1,2}

invited

1. Laboratoire d'Optique Appliquée, France, 2. Weizmann Institute of Science, Israel.

13:30

ALPS8-J-2 **Development and Commissioning of a 20 fs, 4 PW Laser**

(ALPSj-1)

Junghun Shin¹, Hyung Taek Kim^{1,2}, Seong Ku Lee^{1,2}, Jae Hee Sung^{1,2}, Hwang Woon Lee¹,

invited

14:00

Jin Woo Yoon^{1,2}, Cheonha Jeon¹, Chang Hee Nam^{1,3}

1. Center for Relativistic Laser Science (CoReLS), Institute for Basic Science (IBS), Korea, 2. Advanced Photonics Research Institute, Gwangju Institute of Science and Technology (GIST), Korea, 3. Department of Physics and Photon Science, GIST, Korea.

ALPS8-J-3 **European XFEL – New Opportunities for X-ray Science**

(XOPTj-1)

Robert Feidenhans'l

invited

European XFEL, Germany.

14:30

-----Break (15:00 - 15:30) -----

ALPS10-D1 Semiconductor Lasers and Ultrafast Fiber Lasers

15:30 - 17:15 Room 303

Chair: Shun-ich Matsushita

Laboratories for Fusion Core Technologies, Furukawa Electric Co. Ltd., Japan

ALPS10-D1-1 Effects of back-irradiance on the reliability of GaAs high power diode pump lasers

invited

15:30

Paul Orville Leisher¹, Susant K. Patra¹, Matthew C. Boisselle¹, Sezer Sezgin¹, Robert J. Deri¹, Chen Li², Aman K. Jha², Kevin P. Pipe², Jason D. Helmrich³, Devin E. Crawford³, Prabhu Thiagarajan³

1. Lawrence Livermore National Laboratory, USA, 2. University of Michigan, USA, 3. Lasertel Incorporated, USA.

ALPS10-D1-2 Demonstration of an asymmetric beam in an on-chip 2D-pattern-projecting lasers

16:00

Takahiro Sugiyama, Kazuyoshi Hirose, Yu Takiguchi, Yoshiro Nomoto, So Uenoyama, Yoshitaka Kurosaka

Central Research Laboratory, Hamamatsu Photonics K.K., Japan.

ALPS10-D1-3 More than 350kW Peak Power Pulse Generation of sub-100ps pulse width by using a Very Large Mode Area Er-Doped Fiber Amplifier.

16:15

Ryo Kawahara¹, Hiroshi Hashimoto¹, Jeffrey W. Nicholson², Jun Nishina¹, Eisuke Otani¹, Shun-ichi Matsushita¹

1. Laboratories for Fusion Core Technologies, Furukawa Electric Co. Ltd., Japan, 2. OFS laboratories, USA.

ALPS10-D1-4 Robust Yb: fiber laser architecture for high repetition rate femtosecond pulse generation

16:30

Guanyu Liu, Aimin Wang, Zhigang Zhang

State Key Laboratory of Advanced Optical Communication System and Networks, School of Electronics Engineering and Computer Science, Peking University, China.

ALPS10-D1-5 Spectral-Temporal Dynamics of Soliton Explosion in Passively Mode-Locked Yb Fiber Laser

16:45

Masayuki Suzuki, Hiroto Kuroda

Faculty of Medicine, Aichi Medical University, Japan.



Wednesday, 25th April 2018, Room 511+512

ALPS9-G1 Diode Laser and Metamaterials

13:30 - 15:00 Room 511+512

Chair: Takuo Tanaka

Metamaterials laboratory, RIKEN, Japan

ALPS9-G1-1 High-power continuous-wave operation over 100W of a single-chip InGaN Laser Diode

13:30

Atsunori Mochida¹, Masao Kawaguchi¹, Shinichiro Nozaki¹, Hiroyuki Hagino¹, Koshi Nakamura¹, Shinichi Takigawa¹, Kouji Oomori², Takayuki Yoshida², Takuma Katayama¹, Tsuyoshi Tanaka¹

1. Sensing Solution Development Center, Engineering Division, Automotive & Industrial Systems Company, Panasonic Corporation, Japan, 2. Technology Development Department, Corporate Technology Division, Panasonic Smart Factory Solutions Co., Ltd., Japan.

ALPS9-G1-2 High power Si light emission device using dressed photons

13:45

Tadashi Kawazoe¹, Motoichi Ohtsu²

1. Institute of Advanced Laser Technology, Tokyo Denki University, Japan, 2. The University of Tokyo, Japan.

ALPS9-G1-3 Seeing is Believing!? A super plasmonic probe and a Harry Potter's invisible cloak

invited

14:00

Tsung-Yu Huang¹, Ruei-Han Jiang^{1,2,3}, Chi Chen¹, Ding-Zheng Lin³, Jian-Hui Lin¹, Tung Lee¹, He-Chun Chou³, Jen-You Chu², Ta-Jen Yen^{1,2}

1. Department of Materials Science and Engineering, National Tsing Hua University, Taiwan, 2. Department of Materials and Chemical Research Laboratory, Industrial technology and research institute, Taiwan, 3. Research Center for Applied Sciences, Academia Sinica, Taiwan.

ALPS9-G1-4 Controlling the phase transition of vanadium oxide using plasmonic metamaterials

14:30

James Frame¹, Nicolas Green¹, Wakana Kubo^{2,3}, Xu Fang¹

1. Department of Electronics and Computer Science, University of Southampton, UK, 2. Department of Electrical and Electronic Engineering, Tokyo University of Agriculture and Technology, Japan, 3. Metamaterials Laboratory, RIKEN, Japan.

ALPS9-G1-5 Photothermal Electric Effect Triggered by Local Heat under Localized Surface Plasmons

14:45

Masaki Kondo, Wakana Kubo

Tokyo University of Agriculture and Technology (TUAT), Japan.

-----break (15:00 - 15:30) -----

ALPS11-G2 Nano Structure and Applications

15:30 - 17:00 Room 511+512

Chair: Takasumi Tanabe

Department of Electronics and Electrical Engineering, Faculty of Science and Technology, Keio University, Japan

ALPS11-G2-1 UV-laser irradiation of ZnO seed layer for the growth of well-aligned ZnO nanorods

15:30

Qiyan Zhang, Mitsuhiro Honda, Shinji Takayanagi, Yo Ichikawa

Graduate school of Engineering, Nagoya Institute of Technology, Japan.

ALPS11-G2-2 Magneto - optical Kerr effect enhancement by localized plasmon resonance in Au / Co / Au nanostructure

15:45

Yusuke Kikuchi^{1,2}, Takuo Tanaka^{1,2}

1. Metamaterials laboratory, RIKEN, Japan, 2. School of Materials and Chemical Technology, Tokyo Institute of Technology, Japan.

ALPS11-G2-3 Metal fine periodic structures on polyimide film fabricated by femtosecond laser writing

16:00

Seiya Toriyama¹, Vygantas Mizeikis², Atsushi Ono²

1. Graduate school of Science and Technology, Shizuoka University, Japan, 2. Research institute of electronics, Shizuoka University, Japan.

ALPS11-G2-4 THz Antireflective Structures Fabricated by Femtosecond Laser Processing

16:15

Xi Yu, Mahiro Takeuchi, Shingo Ono, Jongsuck Bae

Nagoya Institute of Technology, Japan.

ALPS11-G2-5 Significant suppression of cross talk and enhancement of angular response in color image sensors using a wave-guided color filter array

16:30

Kuo-Feng Lin, Chin-Chuan Hsieh

VisEra Technologies Company, Taiwan.



Thursday, 26th April 2018, Room 303

ALPS12-C1 Ultra-High Intensity Lasers and Technology

9:00 - 10:45 Room 303

Chair: Toshiyuki Kawashima

Hamamatsu Photonics K.K., Japan

- ALPS12-C1-1** **PW-class multi Hz laser generating ultra-high contrast pulses and interaction with aligned nanostructures**
invited
9:00 Jorge J. Rocca¹, Yong Wang¹, Shoujun Wang¹, Alex Rockwood¹, Bradley M. Luther¹, Reed Hollinger¹, Alden Curtis¹, Chase Calvi^{1,2}, M.G. Capeluto², V.N. Shlyaptsev¹, A. Pukhov³, V. Kaymak³, C. S. Menoni¹
1. Electrical and Computer Engineering Department, Department of Physics, Colorado State University, USA, 2. FCEyN, University of Buenos Aires, Argentina, 3. Heinrich-Heine –Universität Düsseldorf, Germany.
- ALPS12-C1-2** **New Architectures for PW-Scale High Peak Power Lasers Scalable to Near-MW Average Powers**
9:30 Craig William Siders, A.J. Bayramian, K.D. Chesnut, A.C. Erlandson, E. Feigenbaum, T.C. Galvin, W.A. Molander, H.T. Nguyen, M.L. Rehak, P.A. Rosso, E.F. Sistrunk, K.I. Schaffers, T.M. Spinka, C. L. Haefner
Advanced Photon Technologies, Lawrence Livermore National Laboratory, NIF & Photon Science Directorate, USA.
- ALPS12-C1-3** **Generation of the Ultraintense Laser Pulse by Focusing the 4 PW Laser**
9:45 Jin Woo Yoon^{1,2}, Seong Ku Lee^{1,2}, Jae Hee Sung^{1,2}, Hwang Woon Lee¹, Il Woo Choi^{1,2}, Cheonha Jeon¹, Junghun Shin¹, Chang Hee Nam^{1,3}
1. Center for Relativistic Laser Science, Institute for Basic Science (IBS), Korea, 2. Advanced Photonics Research Institute, GIST, Korea, 3. Dept. Of Physics and Photon Science, GIST, Korea.
- ALPS12-C1-4** **Meter-size 575×1015mm Gold-coated Gratings for 10PW-class lasers**
10:00 Arnaud Cotel
HORIBA Scientific, France.
- ALPS12-C1-5** **High quality and high damage threshold optics with ozone mixed gas grating**
10:15 Yurina Michine, Hitoki Yoneda
Institute for Laser Science, University of Electro-Communications, Japan.
- ALPS12-C1-6** **Multiple-Plate Pulse Compression for Generation of Few-Cycle, CEP-Stable, Intense Mid-Infrared Pulses**
10:30 Peiyu Xia, Faming Lu, Nobuhisa Ishii, Teruto Kanai, Jiro Itatani
Institute for Solid State Physics, The University of Tokyo, Japan.

-----Break (10:45 - 11:00) -----

ALPS14-C2 High Energy Lasers and Technology

11:00 - 12:15 Room 303

Chair: Hiromitsu Kiriyama

Kansai Photon Science Institute (KPSI), National Institutes for Quantum and Radiological Science and Technology (QST), Japan

ALPS14-C2-1 Current status of 10 PW laser and 100 PW laser project

invited

Yuxin Leng, Xiaoyan Liang, Ruxin Li, Zhizhan Xu

11:00

State Key Laboratory of High Field Physics, Shanghai Institute of Optics and Fine Mechanics, Chinese Academy of Sciences, China.

ALPS14-C2-2 Development of Cryogenically Cooled Helium Gas Circulation System for Cooling Active Medium of 100 J Class Laser Amplifier

11:30

Yasuki Takeuchi¹, Yoshio Mizuta¹, Takashi Sekine¹, Takashi Kurita¹, Masateru Kurata¹, Yuma Hatano¹, Takaaki Morita¹, Yuki Kabeya¹, Kazuki Kawai¹, Yuki Muramatsu¹, Takuto Iguchi¹, Yoshinori Tamaoki¹, Koichi Iyama¹, Yujin Zheng¹, Shigeki Tokita², Junji Kawanaka², Yoshinori Kato¹

1. Industrial Development Center, Central Research Laboratory, Hamamatsu Photonics K.K., Japan, 2. Institute of Laser Engineering, Osaka University, Japan.

ALPS14-C2-3 Development of a 10-J, 10-Hz Cryogenically-Cooled Yb:YAG Ceramics Active-Mirror Laser Amplifier System

11:45

Takaaki Morita¹, Takashi Sekine¹, Yasuki Takeuchi¹, Yuuma Hatano¹, Takashi Kurita¹, Yoshinori Tamaoki¹, Koichi Iyama¹, Yuki Kabeya¹, Masateru Kurata¹, Takuto Iguchi¹, Yoshio Mizuta¹, Kazuki Kawai¹, Yuki Muramatsu¹, Yoshinori Kato¹, Shigeki Tokita², Junji Kawanaka²

1. Industrial Development Center, Central Research Laboratory, Hamamatsu Photonics K.K., Japan, 2. Institute of Laser Engineering, Osaka University, Japan.

ALPS14-C2-4 High energy cryogenically cooled Yb:YAG/Cr:YAG microchip laser

12:00

Xiaoyang Guo^{1,2}, Shigeki Tokita¹, Junji Kawanaka¹

1. Institute of Laser Engineering, Osaka University, Japan, 2. Department of Electronic Science and Engineering, Kyoto University, Japan.

-----Lunch (12:15 - 13:00) -----



Thursday, 26th April 2018, Room 511+512

ALPS13-D2 Visible and Mid-Infrared Lasers

9:00 - 10:45 Room 511+512

Chair: Masaki Tokurakawa

Institute for Laser Science, The University of Electro-Communications (UEC), Japan

- ALPS13-D2-1** **Development of direct visible pulse fiber laser**
invited Shota Kajikawa¹, Minoru Yoshida¹, Osamu Ishii², Masaaki Yamazaki², Yasushi Fujimoto³
9:00 *1. Faculty of Science and Engineering, Kindai University, Japan, 2. Sumita Optical Glass, Inc., Japan, 3. Department of Electrical and Electronic Engineering, Chiba Institute of Technology, Japan.*
- ALPS13-D2-2** **Characterization of Transition-Metal-Doped Saturable Absorbers for Passive Q-switching of Visible Lasers**
9:30 Hiroki Tanaka^{1,2}, Elena Castellano-Hernández², Christian Kränkel^{2,3}, Fumihiko Kannari¹
1. Department of Electronics and Electrical Engineering, Keio University, Japan, 2. Center for Laser Materials, Leibniz Institute for Crystal Growth, Germany, 3. Institute of Laser-Physics, Universität Hamburg, Germany.
- ALPS13-D2-3** **Ultrafast Thulium-Doped Fiber Amplifier for Multiphoton Microscopy**
9:45 Yutaka Nomura^{1,2}, Takao Fuji¹
1. Institute for Molecular Scienc, Japan, 2. JST-PRESTO, Japan.
- ALPS13-D2-4** **Femtosecond-Laser-Written Ho:KGd(WO₄)₂ Waveguide Lasers at 2.06 μm**
10:00 Esrom Kifle¹, Pavel Loiko², Xavier Mateos¹, Javier Rodríguez Vázquez de Aldana³, Airan Ródenas^{1,4}, Magdalena Aguiló¹, Francesc Díaz¹, Viktor Zakharov², Andrey Veniaminov², Uwe Griebner⁵, Valentin Petrov⁵
1. Física i Cristal·lografia de Materials i Nanomaterials (FiCMA-FiCNA)-EMaS, Dept. Química Física i Inòrganica, Universitat Rovira i Virgili (URV), Spain, 2. ITMO University, Russia, 3. Aplicaciones del Láser y Fotónica, University of Salamanca, Spain, 4. Istituto di Fotonica e Nanotecnologie, Consiglio Nazionale delle Ricerche (IFN-CNR), Italy, 5. Max Born Institute for Nonlinear Optics and Short Pulse Spectroscopy, Germany.
- ALPS13-D2-5** **Point-by-Point inscription of fiber Bragg grating by a Femtosecond laser for 2.8 mm fiber laser**
10:15 Kenji Goya¹, Hiyori Uehara¹, Satoshi Hattori², Daisuke Konishi², Masanao Murakami², Shigeki Tokita¹
1. Institute of Laser Engineering, Osaka University, Japan, 2. Mitsuboshi Diamond Industrial Co., Ltd., Japan.

ALPS13-D2-6
10:30

Efficient CW and Q-switched operation of Er:Lu₂O₃ ceramic laser at 2.8 mm

Hiyori Uehara¹, Shigeki Tokita¹, Junji Kawanaka¹, Daisuke Konishi³, Masanao Murakami³, Seiji Shimizu³, Ryo Yasuhara²

1. Institute of Laser Engineering, Osaka University, Japan, 2. National Institute for Fusion Science, Japan, 3. Mitsubishi Diamond Industrial Co., Ltd., Japan.

-----Break (10:45 - 11:00) -----

ALPS15-F1 Terahertz Photonics 1

11:00 - 12:15 Room 511+512

Chair: Takashi Notake

Teraphotonics Team, RIKEN, Japan

ALPS15-F1-1 Liquid Crystal Based Devices for THz Applications

invited

11:00

Lei Wang¹, Makoto Nakajima², Yanqing Lu³

1. College of Electronic and Optical Engineering & College of Microelectronics, Nanjing University of Posts and Telecommunications, China, 2. Institute of Laser Engineering, Osaka University, Japan,

3. College of Engineering and Applied Sciences, Nanjing University, China.

ALPS15-F1-2
11:30

Liquid phase growth of Ge doped GaSe and GaSe_{1-x}Te_x bulk crystals at low temperature for highly efficient THz wave source

Yohei Sato, Chao Tang, Tadao Tanabe, Yutaka Oyama

Department of materials science, Tohoku University, Japan.

ALPS15-F1-3
11:45

Laser-matter interaction in picosecond pulsed second-harmonic generation by periodically poled LiTaO₃: Experiment and theory

Oleg A. Louchev, Satoshi Wada

Center for Advanced Photonics, RIKEN, Japan.

ALPS15-F1-4
12:00

Efficient Terahertz Emission from the Co/Pt Ferromagnetic Heterostructure Based on Inverse Spin Hall Effect

Hongsong Qiu, Kosaku Kato, Kazumasa Hirota, Nobuhiko Sarakura, Masashi Yoshimura, Makoto Nakajima

Institute of Laser Engineering, Osaka University, Japan.

-----Lunch (12:15 - 13:00) -----



Thursday, 26th April 2018, Exhibition Hall A

ALPSp Poster Session

13:00 - 14:30 Exhibition Hall A

- ALPSp-1** **Vertically-oriented Graphene for Field-Effect Transistor Photodetector**
Jiawei Yang, Baolu Guan
Key Laboratory of Optoelectronics Technology, Ministry of Education, Faculty of Information Technology, Beijing University of Technology, China.
- ALPSp-2** **Structure of non-temperable low-E glass determined by synchrotron radiation**
Sang Joon Park¹, Hyung Wook Choi², Samgmo Kim², Chung Wung Bark²
1. Dept. Chemical and Biological Engineering, Gachon University, Korea, 2. Dept. Electrical Engineering, Gachon University, Korea.
- ALPSp-3** **SERS on Antirabbit IgG: Preliminary results**
Juan Carlos Martínez-Espinosa¹, Teodoro Córdova-Fraga², Gustavo Basurto-Islas², Octavio Jimenez-Gonzalez², Jacqueline Torres-Ramirez¹, Ana Pamela Andrade-Pérez¹, Jesús Bernal-Alvarado², Angélica Hernández-Rayas², Mauricio Sánchez-Barajas³
1. Instituto Politécnico Nacional-UPIIG, México, 2. Departamento de Ingeniería Física – DCI, Universidad de Guanajuato campus León, México, 3. Hospital General de Zona con Medicina Familiar No 21 León Sur, Universidad de Guanajuato campus León., México.
- ALPSp-4** **High gain single crystal fiber amplifier for hybrid femtosecond laser system**
Elena Sall, Sergey Chizhov, Byunghak Lee, Bosu Jeong, Jun Wan Kim, Duchang Heo, Chur Kim, Seol Won Park, Guang-Hoon Kim
Korea Electrotechnology Research Institute, Korea.
- ALPSp-5** **Longitudinally Excited CO₂ Laser Driven by Fast-High Voltage Solid State Switch**
Noor Shahira binti Masroon¹, Shigeyasu Ohashi¹, Masaya Tei¹, Miyu Tanaka¹, Kazuyuki Uno², Hitoshi Nakano¹
1. Kindai University, Japan, 2. University of Yamanashi, Japan.
- ALPSp-6** **Development of Nanosecond Pump Source for Optically Synchronized OPCPA**
Yasuhiro Miyasaka, Hiromitsu Kiriyama, Maki Kishimoto, Michiaki Mori, Masaki Kando, Kiminori Kondo
Kansai Photon Science Institute (KPSI), National Institutes for Quantum and Radiological Science and Technology (QST), Japan.

- ALPSp-7** **Reducing amplified spontaneous emission of a cryogenic disk amplifier through geometrical optimization of the gain medium**
Reza Amani¹, Jan Cvrček^{1,2}, Jitka Černohorská^{1,2}, Martin Smrž¹, Akira Endo¹, Tomáš Mocek¹
1. HiLASE Centre, Institute of Physics, Czech Academy of Sciences, Czech Republic, 2. Czech Technical University in Prague, Czech Republic.
- ALPSp-8** **Temperature Dependence Evaluation of Absorption in YAG Cladding Materials for High Power Solid-State Lasers**
Koichi Hamamoto^{1,2}, Shigeki Tokita¹, Hidetsugu Yoshida¹, Noriaki Miyanaga¹, Junji Kawanaka¹
1. Institute of Laser Engineering, Osaka University, Japan, 2. Mitsubishi Heavy Industries, Ltd., Japan.
- ALPSp-9** **Research of Diamond Transmission Gratings Used for of High Power Laser Pulse Compression**
Shuwei Fan, Tianfei Zhu, Hongxing Wang
Institute of Wide Band Gap Semiconductors, School of Electronics and Information Engineering, Xi'an Jiaotong University, China.
- ALPSp-10** **Sub-100-fs Pulse Generation from a Tm,Ho:CALYO Laser Mode-Locked by SWCNTs**
Yongguang Zhao^{1,2}, Yicheng Wang¹, Zhongben Pan^{1,3}, Ji Eun Bae⁴, Sun Young Choi⁴, Fabian Rotermund⁴, Wei Zhou², Xiaodong Xu², Deyuan Shen², Jun Xu⁵, Xavier Mateos^{1,6}, Pavel Loiko⁷, Uwe Griebner¹, Valentin Petrov¹
1. Max Born Institute for Nonlinear Optics and Short Pulse Spectroscopy, Germany, 2. Jiangsu Key Laboratory of Advanced Laser Materials and Devices, Jiangsu Normal University, China, 3. Institute of Chemical Materials, China Academy of Engineering Physics, China, 4. Department of Physics, Korea Advanced Institute of Science and Technology (KAIST), Korea, 5. School of Physics Science and Engineering, Institute for Advanced Study, Tongji University, China, 6. Física i Cristal·lografia de Materials i Nanomaterials (FiCMA-FiCNA)-EMaS, Dept. Química Física i Inòrganica, Universitat Rovira i Virgili (URV), Spain, 7. ITMO University, Russia.
- ALPSp-11** **177 fs Pulses From Kerr-Lens Mode-Locked Yb:Lu₂O₃ Ceramic Thin-Disk Laser**
Shotaro Kitajima¹, Akira Shirakawa¹, Hideki Yagi², Takagimi Yanagitani²
1. Institute for Laser Science, University of Electro-Communications, Japan, 2. Takuma Works, Konoshima Chemical Co., Ltd., Japan.

- ALPSP-12** **Measurement of Carrier Dynamics of the Graphite by Time-Resolved ARPES**
Kento Toume^{1,2}, Katsuya Oguri¹, Hiroki Mashiko¹, Keiko Kato¹, Yoshiaki Sekine¹, Hiroki Hibino^{3,1}, Akira Suda², Hideki Gotoh¹
1. NTT Basic Research Laboratories, Japan, 2. Tokyo University of Science, Japan, 3. Kwansai Gakuin University, Japan.
- ALPSP-13** **Electron Temperature of High-Pressure Argon Plasma by Focusing Femtosecond Laser**
Kohsuke Tsuchida, Norio Tsuda, Jun Yamada
Aichi Institute of Technology, Japan.
- ALPSP-14** **Patterning Oxidation of Copper Substrate by Femtosecond Laser Irradiation**
Xi Yu¹, Masaaki Sudo², Fumihiro Itoigawa¹, Shingo Ono¹
1. Nagoya Institute of Technology, Japan, 2. IMRA America Inc., Japan.
- ALPSP-15** **Optical Properties of Saturable Absorber for Temporal Contrast Improvement of Ultra-High Intensity Laser**
Koichi Ogura, Yasuhiro Miyasaka, Yuji Fukuda, Akito Sagisaka, Alexander S. Pirozhkov, Hiromitsu Kiriyama
Kansai Photo Science Institute, National Institutes for Quantum and Radiological Science and Technology, Japan.
- ALPSP-16** **Polarization and Laser Properties of Resonators with Corner-Cube and Axicon Retro-Reflectors**
Haik Chosrowjan¹, Seiji Taniguchi¹, Hidetsugu Yoshida², Noriaki Miyanaga²
1. Institute for Laser Technology, c/o Technical Research Center, Kansai Electric Power Company, Japan, 2. Institute of Laser Engineering, Osaka University, Japan.
- ALPSP-17** **Amplification Property of Ce/Cr/Nd:YAG Ceramic Laser Using White-light Pump Source**
Taku Saiki¹, T. Nakamachi¹, T. Hayashi¹, R. Matsushita¹, T. Ichiuji¹, H. Furuse², S. Motokoshi⁴, Y. Fujimoto³, M. Nakatsuka^{3,4}
1. Department of Electrical and Electronic Engineering, Faculty of Engineering Science, Kansai University, Japan, 2. Kitami Institute of Technology, Japan, 3. Institute of Laser Engineering, Osaka University, Japan, 4. Institute for Laser Technology, Japan.
- ALPSP-18** **White-Light Whispering-Gallery-Mode Lasing from Lanthanide-Doped Upconversion NaYF₄ Hexagonal Microrods**
Ting Wang¹, Huan Yu², Chun kit Siu¹, Jianbei Qiu², Xuhui Xu^{1,2}, Siu Fung Yu¹
1. Department of Applied Physics, The Hong Kong Polytechnic University, China, 2. College of Materials Science and Engineering, Kunming University of Science and Technology, China.

- ALPSP-19** **Assessment on Power-scaling of Ti:sapphire Lasers Pumped by Blue-diode Lasers**
Naoto Sugiyama, Hiroki Tanaka, Fumihiko Kannari
Department of Electronics and Electrical Engineering, Keio University, Japan.
- ALPSP-20** **Power scaling of a passively Q-switched diode-pumped Pr³⁺:YLF laser**
Shogo Fujita, Hiroki Tanaka, Naoto Sugiyama, Fumihiko Kannari
Department of Electronics and Electrical Engineering, Keio University, Japan.
- ALPSP-21** **Development of compact and high efficient UV laser system**
Y. Fujimoto¹, M. Nakahara², P. Binun², S. Motokoshi³, O. Ishii⁴, M. Watanabe⁴, M. Yamazaki⁵, T. Shinozaki², T. Sato², H. Yanomori²
1. Chiba Institute of Technology, Department of Electrical and Electronic Engineering, Japan, 2. Kimmon Koha co., Ltd., Japan, 3. Institute of Laser Technology, Japan, 4. Production Engineering Section, Optical Glass Production Department, Sumita Optical Glass, Inc., Japan, 5. Glass Research Division, R&D Department, Sumita Optical Glass, Inc., Japan.
- ALPSP-22** **Compact pulsed Yb-doped fiber laser and intra-cavity cascaded Raman spectrum generation**
Yanrong Song, Zikai Dong, Runqin Xu, Jinrong Tian
College of Applied Sciences, Beijing University of Technology, PR China.
- ALPSP-23** **Off-peak Raman fiber laser at the wavelength of 1629 nm**
Anna Suzuki, Eisuke Fujita, Masaki Tokurakawa
Institute for Laser Science, University of Electro-Communications, Japan.
- ALPSP-24** **Research on Ohmic contact of VCSEL based on Cr/ Au alloy of non-magnetic materials**
Yanling Guo, Baolu Guan
Key Laboratory of Optoelectronics Technology, Ministry of Education, Faculty of Information Technology, Beijing University of Technology, China.
- ALPSP-25** **Clean pump generation for in-line phase sensitive amplification using carrier phase recovery and injection locking**
Masato Kato¹, Takeshi Umeki², Koji Enbutsu², Masaki Asobe¹
1. Tokai University, Japan, 2. NTT Device Technology Laboratories, NTT Corporation, Japan.
- ALPSP-26** **Terahertz Time Domain Spectroscopy for Radiative Eigenmodes in Metallic Slit Array**
Thanh Nhat Khoa Phan¹, Dazhi Li², Kosaku Kato¹, Masahiko Tani³, Masashi Yoshimura¹, Masaki Hashida⁴, Yanyu Wei⁵, Makoto Nakajima¹
1. Institute of Laser Engineering, Osaka University, Japan, 2. Institute for Laser Technology, Japan, 3. University of Fukui, Japan, 4. Advanced Research Center for Beam Science, ICR, Kyoto University, Japan, 5. School of Physical Electronics, University of Electronics Science and Technology of China, China.

- ALPSP-27** **Programmable Optical Linear Circuit using Wavelength-Division-Multiplexed Quantum States**
Akihito Omi, Aruto Hosaka, Masaya Tomita, Shintaro Niimura, Fumihiko Kannari
Department of Electronics and Electrical Engineering, Keio University, Japan.
- ALPSP-28** **Modal Analysis and Characterization of Photon-Number Statistics of Supercontinuum laser Pulses**
Shintaro Niimura, Aruto Hosaka, Masaya Tomita, Akihito Omi, Fumihiko Kannari
Department of Electronics and Electrical Engineering, Keio University, Japan.
- ALPSP-29** **Maker Fringe Measurements of Ultra-Precisely Processed N-Benzyl-2-Methyl-4-Nitroaniline Organic Crystal**
Takashi Notake¹, Masahiro Takeda^{2,3}, Takuya Hosobata², Yutaka Yamagata^{2,3}, Hiroaki Minamide¹
1. Teraphotonics Team, RIKEN, Japan, 2. Ultrahigh Precision Optics Technology Team, RIKEN, Japan, 3. Advanced Manufacturing Support Team, RIKEN, Japan.
- ALPSP-30** **Fabrication of 1 & 4 inch size transparent Nd:YAG ceramics and Laser Oscillation**
Yoshiki Yamazaki¹, Makoto Mikami¹, Yuichi Kozawa², Shunichi Sato²
1. JX Nippon Mining & Metals Corporation Isohara Works, Japan, 2. Institute of Multidisciplinary Research for Advanced Materials, Tohoku University, Japan.
- ALPSP-31** **High-efficiency ring beam converter with axicon mirrors**
Yuya Shimoji, Godai Miyaji
Department of Applied Physics, Tokyo University of Agriculture and Technology, Japan.
- ALPSP-32** **High aspect ratio nanometer size channel machining with phase corrected femtosecond Bessel beams.**
Kosuke Iida, Yurina Michine, Hitoki Yoneda
Institute for Laser Science, University of Electro-Communications, Japan.
- ALPSP-33** **Absorption Enhancement in Solar Cells with Metamaterial Perfect Absorbers**
Tomihisa Isegawa¹, Takayuki Okamoto², Wakana Kubo¹
1. Tokyo University of Agriculture and Technology, Japan, 2. RIKEN, Japan.
- ALPSP-34** **Selective coherent anti-Stokes Raman scattering microscopy employing dual-wavelength nanofocused ultrafast plasmon pulses**
Keita Tomita, Yasuhiro Kojima, Fumihiko Kannari
Department of Electronics and Electrical Engineering, Keio University, Japan.
- ALPSP-35** **Optical gain of multi stacked InGaAs quantum dots using VSL method**
Keishiro Goshima¹, Norio Tsuda¹, Keisuke Inukai¹, Takeru Amano², Takeyoshi Sugaya²
1. Electronics Engineering, Aichi Institute of Technology, Japan, 2. National Institute of Advanced Industrial Science and Technology (AIST), Japan.

- ALPSP-36** **Single-shot Ultrafast Imaging with Burst Pulses of 100-ps Interval**
Hirofumi Nemoto, Takakazu Suzuki, Yuki Yamaguchi, Ryohei Hida, Fumihiko Kannari
Department of Electronics and Electrical Engineering, Keio University, Japan.
- ALPSP-37** **Development of rigid-endoscope optical coherence tomography system using two-dimensional KTN optical scanner**
Masato Ohmi¹, Eunjoo Choi¹, Takayuki Komatsu², Shogo Yagi²
1. Course of Allied Health Science, Graduate School of Medicine, Osaka University, Japan, 2. NTT Advance Technology Corporation, Japan.
- ALPSP-38** **Multifocal spectral-domain optical coherence tomography based on Bessel beam for Biological Imaging**
Luying Yi, Liqun Sun
State Key Laboratory of Precision Measurement Technology & Instruments, Department of Precision Instruments, Tsinghua University, China.
- ALPSP-39** **Velocity and Distance Simultaneous Measurement by Digital Processing of Self-Coupling Signal**
Keiichi Shibata, Noriio Tsuda, Jun Yamada
Aichi Institute of Technology, Japan.
- ALPSP-40** **A Simplified Heterodyne Surface Plasmon Resonance Sensor**
Michihiro Uchiumi¹, Fumiya Kai¹, Ozora Ushijima¹, Kohei Shimogama¹, Kazuyoshi Koga¹, Kyouichi Deki², Nobuaki Tominaga²
1. Inf. Syst. Crs, Div. of Hum. and Welfare Eng., Dept. Creative Eng., Natl Inst. Of Technol. Ariake Coll., Japan, 2. Environ. Sci. Crs, Div. of Environ. and Energy Eng., Dept. Creative Eng., Natl Inst. Of Technol. Ariake Coll., Japan.
- ALPSP-41** **Spectroscopic Ellipsometry-based Biosensor for Monitoring Microalgae Growth**
Siti N. Alfath¹, Riza A.N. Khasanah¹, Asmida Herawati¹, Edi Suharyadi¹, Eko A. Suyono², Iman Santoso¹, Takeshi Kato³, Satoshi Iwata⁴
1. Department of Physics, Universitas Gadjah Mada, Indonesia, 2. Faculty of Biology, Universitas Gadjah Mada, Indonesia, 3. Department of Electronics, Nagoya University, Japan, 4. Institute of Materials and System for Sustainability, Nagoya University, Japan.
- ALPSP-42** **Bidirectional Mode-locked Er: fiber Laser with Two Semiconductor Saturable Absorber Mirrors**
Yuya Hata¹, Yoshiaki Nakajima^{1,2}, Kaoru Minoshima^{1,2}
1. The University of Electro-Communications (UEC), Japan, 2. Japan Science and Technology Agency (JST), ERATO MINOSHIMA Intelligent Optical Synthesizer (IOS) Project, Japan.

- ALPSP-43** **High-accuracy corrections of large and fast air refractive index fluctuations using two-color interferometry with optical frequency combs**
Yoshihisa Ikisawa¹, Tomohiro Makino^{1,2}, Yoshiaki Nakajima^{1,2}, Guanhao Wu³, Kaoru Minoshima^{1,2}
1. The University of Electro-Communications (UEC), Japan, 2. Japan Science and Technology Agency (JST), ERATO MINOSHIMA Intelligent Optical Synthesizer (IOS) Project, Japan, 3. Tsinghua University, China.
- ALPSP-44** **10W amplification of 750-MHz Yb: fiber laser frequency comb for sub-100 fs pulse duration**
Hirotaka Ishii¹, Bo Xu^{1,2}, Yuxuan Ma^{1,3}, Isao Matsushima^{1,2}, Yoshiaki Nakajima^{1,2}, Thomas Schibli⁴, Zhigang Zhang³, Kaoru Minoshima^{1,2}
1. Department of Engineering Science, Graduate School of Informatics, The University of Electro-Communications (UEC), Japan, 2. Japan Science and Technology Agency (JST), ERATO MINOSHIMA Intelligent Optical Synthesizer (IOS) Project, Japan, 3. State Key Laboratory of Advanced Optical Communication System and Networks, Peking University, China, 4. Dep. of Physics, University of Colorado at Boulder, USA.
- ALPSP-45** **Dual-Comb Interferometry Based on Synthetic-Wavelength for High-Speed and High-Precision Distance Measurement**
Zebin Zhu¹, Kai Ni², Qian Zhou², Guanhao Wu^{1,2}
1. State Key Laboratory of Precision Measurement Technology and Instruments, Department of Precision Instruments, Tsinghua University, China, 2. Division of Advanced Manufacturing, Graduate School at Shenzhen, Tsinghua University, China.
- ALPSP-46** **Tunable single-frequency continuous-wave optical parametric oscillator in the near-IR and mid-IR**
Sophie Kröger¹, Edlef Büttner², Andreas Steiger³, Ralf Müller³
1. Hochschule für Technik und Wirtschaft, Germany, 2. APE Angewandte Physik & Elektronik GmbH, Germany, 3. Physikalisch-Technische Bundesanstalt, Germany.
- ALPSP-47** **Broadband achromatic metalens in the visible**
Mu Ku Chen^{1,2}, Pin Chieh Wu^{1,2}, Vin-Cent Su⁴, Hui-Hsin Hsiao³, Yi-Chieh Lai^{1,2}, Hsin Yu Kuo^{1,2}, Bo Han Chen^{1,2}, Yu Han Chen^{1,2}, Din Ping Tsai^{1,2}
1. Research Center for Applied Sciences, Academia Sinica, Taiwan, 2. Department of Physics, National Taiwan University, Taiwan, 3. Institute of Biomedical Optomechatronics Taipei Medical University, Taiwan, 4. Department of Electrical Engineering, National United University, Taiwan.

ALPSp-48

Dependence of temporal Contrast on Optics Surface Roughness in the Stretcher and Compressor

Hiromitsu Kiriyama¹, Yuji Mashiba^{1,2}, Yasuhiro Miyasaka¹, Makoto R. Asakawa²

1. Kansai Photon Science Institute (KPSI), National Institutes for Quantum and Radiological Science and Technology (QST), Japan, 2. Faculty of Science and Engineering, Kansai University, Japan.

ALPSp-49

Surface Cleaning and Modification of Thin Target Films by CW laser for Laser-driven Heavy Ion Acceleration

Kotaro Kondo¹, Mamiko Nishiuchi¹, Hironao Sakaki¹, Nicholas P. Dover¹, Hiromitsu Kiriyama¹, Masahiko Ishino¹, Takumi Miyahara^{1,2}, Yukinobu Watanabe², Masaki Hashida³, Mitsuhiro Kusaba⁴, Masaki Kando¹, Kiminori Kondo¹

1. Kansai Photon Science Institute, National Institutes for Quantum and Radiological Science and Technology (QST), Japan, 2. Interdisciplinary Graduate School of Engineering Science, Kyushu University, Japan, 3. Institute for Chemical Research, Kyoto University, Japan, 4. Department of Electronics, Information and Communication Engineering, Osaka Sangyo University, Japan.



Friday, 27th April 2018, Room 511+512

ALPS16-F2 Terahertz Photonics 2

9:15 - 10:30 Room 511+512

Chair: Oleg A. Louchev

Center for Advanced Photonics, RIKEN, Japan

ALPS16-F2-1 **Strong dc Precursors of Intense Laser Pulses in Electro-Optic Crystals**

invited

9:15

Michael I. Bakunov¹, Alexey V. Maslov¹, Maxim V. Tsarev¹, Evgeny S. Efimenko²,
Sergey A. Sychugin¹

1. University of Nizhny Novgorod, Russia, 2. Institute of Applied Physics, Russian Academy of Sciences, Russia.

ALPS16-F2-2 **Effects of delayed feedback rates on THz wave generation using laser chaos**

9:45

Fumiyoshi Kuwashima¹, Takuya Shirao¹, Kazuyuki Iwao¹, Naoya Sakaue¹, Siori Gouda¹,
Takurou Sirasaki¹, Masahiko Tani², Kazuyoshi Kurihara³, Kohji Yamamoto²,
Osamu Morikawa⁴, Hideaki Kitahara², Makoto Nakajima⁵

1. Department of Electrical and Electronic Engineering, Fukui University of Technology, Japan, 2. Research Center for Development of Far-Infrared Region, University of Fukui, Japan, 3. Fac. of Educ., University of Fukui, Japan, 4. Chair of Liberal Arts, Japan Coast Guard Academy, Japan, 5. Institute of Laser engineering, Osaka University, Japan.

ALPS16-F2-3 **Resonant tunnelling diodes versus semiconductor laser with feedback: confronting their oscillating dynamics**

10:00

Andreas Karsaklian Dal Bosco¹, Safumi Suzuki², Masahiro Asada², Hiroaki Minamide¹

1. RIKEN Center for Advanced Photonics, Tera-Photonics Research Team, Japan, 2. Tokyo Institute of Technology, Department of Electrical and Electronic Engineering, Japan.

ALPS16-F2-4 **High-speed measurement of terahertz waveform using Yb-doped fiber laser**

10:15

Masaaki Tsubouchi, Keisuke Nagashima

National Institutes for Quantum and Radiological Science and Technology (QST), Kansai Photon Science Institute (KPSI), Japan.

-----Break (10:30 - 11:00) -----

ALPS17-C3 Ultrafast Phenomena

11:00 - 11:45 Room 511+512

Chair: Hiroki Mashiko

NTT Basic Research Laboratories, Japan

ALPS17-C3-1 Complete characterization of an optical waveform by luminescence from gas plasma

11:00

Nariyuki Saito, Nobuhisa Ishii, Teruto Kanai, Jiro Itatani

The Institute for Solid State Physics, The University of Tokyo, Japan.

ALPS17-C3-2 Femtosecond XUV Absorption Spectroscopy Elucidates the Origins of Multimode Vibrational Coherences Induced by Intense Laser Fields

invited

11:15

Zhi-Heng Loh

Division of Chemistry and Biological Chemistry, School of Physical and Mathematical Sciences, Nanyang Technological University, Singapore.

Award Ceremony & Closing Remarks

11:45 - 12:30 Room 511+512

Fumihiko Kannari

Department of Electronics and Electrical Engineering, Keio University, Japan

Sponsored & Organized by
The Laser Society of Japan

