

Japan - ELI Joint Workshop on Collaboration in High Power Laser Science and Technology

Date Monday, 17 April 2023

Venue PACIFICO Yokohama Conference Centre (Room 303)

Organized by

ILE: Institute of Laser Engineering, Osaka University

ELI: Extreme Light Infrastructure

Co-organized by

KPSI: Kansai Photon Science Institute, National Institutes for Quantum Science and Technology

OPIC: OPTICS & PHOTONICS International Council

Supported by

MEXT: Ministry of Education, Culture, Sports, Science and Technology, Japan

ELI ERIC: Extreme Light Infrastructure European Research Infrastructure Consortium

Sponsored by

OKAMOTO OPTICS, Inc.

PROGRAM

(The number in parentheses is the presentation time in minutes, including Q&A.)

I. Welcome		
9:00	Opening remarks/welcome	Andrew HARRISON / Director of Science, ELI ERIC Yoshiaki KATO / Congress Co-Chair, OPIC 2023
9:10	Japanese Ministry	Ichiro KURONUMA / Director, University Research Facilitation Division, Research Promotion Bureau, MEXT
	European Union	Gediminas RAMANAUSKAS / Head of Science, Innovation, Digital, and Other EU Policies Section, Delegation of the European Union to Japan
	Czech Republic	Ondrej SVOBODA, Ph. D., Deputy Head, Political and Trade Section, Embassy of the Czech Republic
	Hungary	H. E. Norbert PALANOVICS, Ph. D., Ambassador Extraordinary and Plenipotentiary of Hungary
	Romania	H. E. Ovidiu DRANGA, Ambassador Extraordinary and Plenipotentiary of Romania

II. Opportunities for Japan-ELI Collaboration in Science

1. Research initiatives

Chair: Yoshiaki KATO

9:50	Introduction to Japanese initiative (20)	Ryosuke KODAMA / ILE, Osaka U.
10:10	Introduction to ELI initiative (20)	Roman HVEZDA / ELI BL

10:30 Coffee/networking break

2. High energy density science and applications

10:50	Japan	Chair: Akifumi YOGO
	Study of a laser-plasma interaction around extreme astrophysical objects: Induced Compton scattering in laboratory (15)	Shuta TANAKA / Aoyama Gakuin U.
	Neutron resonance spectroscopy by laser-driven neutron sources (15)	Takehito HAYAKAWA / QST-KPSI
	Magnetized high-energy-density physics experiment for laser-driven inertial fusion energy (15)	Shinsuke FUJIOKA / ILE, Osaka U.
11:35	ELI	Chair: Sergei BULANOV
	Novel plasma accelerators and applications in radiation therapy and material inspections (15)	Daniele MARGARONE / ELI BL
	Laser Plasma Physics and provision for laser-driven fusion (15)	Stefan WEBER / ELI BL
	ELI NP towards 10 PW laser science in unknown territory (15)	Domenico DORIA / ELI NP

12:20 Lunch

3. High field and ultrafast science and applications

13:20	Japan	Chair: Ryoichi HAJIMA / QST-KPSI
	High-field science at KPSI-QST – laser acceleration and coherent x-ray generation (15)	Masaki KANDO / QST-KPSI
	Searches for dark matter with 10TW and beyond (15)	Kensuke HOMMA / Hiroshima U.
	The third-generation table-top attosecond light sources (15)	Katsumi MIDORIKAWA / RIKEN

14:05	ELI	Chair: Daniele MARGARONE / ELI BL
	High field ultrafast science and technology at ELI-ALPS: roadmap to applications (15)	Subhendu KAHALY / ELI ALPS
	Beyond the horizon of petawatt physics (15)	Sergei BULANOV / ELI BL
14:35	Coffee/networking break	
	III. Opportunities for Japan-ELI Collaboration in Technology	
14:55	Needs and opportunities in industry	Chair: Roman HVEZDA / ELI BL
	(Topics)	
	Advanced optics for high power lasers (10)	Takuya MIKAMI / OKAMOTO Optics
	Transparent ceramics for high power laser (10)	Daichi MORIMOTO / KONOSHIMA Chemical
	Repetitive high-energy solid-state laser (10)	Toshiyuki KAWASHIMA / Hamamatsu Photonics
	Semiconductor X-ray metrology (10)	Kazuhiko OMOTE / RIGAKU
	High-power ultrashort-pulse laser (10)	Guillaume THIBAUT / Thales
	Panel discussion (35)	
	IV. Conclusion	
16:20	Concluding remarks	Andrew HARRISON / ELI ERIC Ryosuke KODAMA / ILE, Osaka U.
17:30	Reception (Jointly with OPIC Get-together)	InterContinental Yokohama Grand (Adjacent to Pacifico Yokohama) 3F Pacific room