

April 24 (MON)

Time	Session / Chair	No.	Speaker	Affiliation	Title of talk
10:00 - 10:30 (each 5 - 10min)	Opening		Conference Chair		Opening, welcome to Q-BASIS 2023
			Tohru SEKINO	SANKEN, Osaka U., Japan	Welcome to SANKEN, Osaka University
	(Chaired by Y. SANO, T. HOSOKAI and M. KANDO)		Hiroyuki KAMAI	MEXT, Japan	Greetings from MEXT (Ministry of Education, Culture, Sports, Science and Technology)
10:30 - 11:00 Invited	Application of high-power lasers (Chaired by Y. SANO)	24A-01	Domenico FURFARI	Airbus, Germany	The use of Lights for Structural Performance Enhancement of Metallic Airframes. LEOPARD, a Laser Shock Peening industrial solution for Maintenance Repair Overhaul Use
11:00 - 11:30	Break				
11:30 - 12:00 Invited 12:00 - 12:30 Invited	Application of high-power lasers (Chaired by K. NOMURA)	24A-02	Laurent BERTHE	PIMM, CNRS, France	New advance on laser shock generation and related applications : Laser shock peening, laser adhesion test and damaging
		24A-03	Noboru HASEGAWA	KPSI, QST, Japan	Development of a laser hammering system for tunnel and bridge concrete inspection using the high-power lasers
12:30 - 14:00	LUNCH TIME 12:30 ~ Group Photo				
14:00 - 14:30 Invited 14:30 - 15:00 Invited 15:00 - 15:30 Invited	Laser-material interaction for science and industry (Chaired by T. MOCEK)	24P-01	Kenichi ISHIKAWA	U. of Tokyo, Japan	Building Artificial Intelligence, Science and Theory for Smart Laser Manufacturing
		24P-02	Yusuke ITO	U. of Tokyo, Japan	Ultrafast processing of transparent materials by selective absorption of continuous-wave laser into transiently excited electrons
		24P-03	Tomokazu SANO	Osaka U., Japan	Femtosecond Laser-Shock Processing: Fundamentals and Applications
15:30 - 16:00	Break				
16:00 - 16:30 Invited 16:30 - 17:00 Invited	Quantum beams for material science and industry (Chaired by T. SANO)	24P-04	Makoto OCHIAI	Toshiba ESS, Japan	Achievements and future expectations of laser applications for energy solutions
		24P-05	Kentaro UESUGI	JASRI, Japan	High speed 2D/3D X-ray imaging at SPring-8
17:00 - 17:30 Invited 17:30 - 18:00 Invited	High-power laser development and applications (Chaired by S. TOKITA)	24P-06	Tomas MOCEK	HiLASE, Czech Rep.	Advanced DPSSL technologies and applications at HiLASE
		24P-07	Takashi SEKINE	Hamamatsu Photonics, Japan	A 100 J, 10 Hz operation with LD pumped Yb:YAG ceramics laser

April 25 (TUE)

Time	Session / Chair		Speaker	Affiliation	Title of talk
9:00 - 9:30 Invited	Quantum beam applications for imaging and inspection (Chaired by T. KANAI)	25A-01	Haruo MIYADERA	Toshiba ESS, Japan	Muon imaging and applications
9:30 - 10:00 Invited		25A-02	Fesseha MARIAM	LANL, USA	The LANL Proton radiography Facility and Investigations toward Achromatic Imaging
10:00 - 10:30 Invited		25A-03	Yoshie OTAKE	RIKEN, Japan	RIKEN Accelerator-driven compact neutron system and its applications and achievements
10:30 - 11:00	Break				
11:00 - 11:30 Invited	Quantum beams for medical and biological science & engineering (Chaired by M. NOZAKI)	25A-04	Masahiko KOIZUMI	Osaka U., Japan	Radiation Sensitization for Radiation Therapy
11:30 - 12:00 Invited		25A-05	Thomas KLUGE	HZDR, Germany	High Energy Proton Acceleration at DRACO-PW and Radiobiological Applications for Medical Tumor Therapy Research
12:00 - 12:30		25A-06	Kiminori KONDO	KPSI, QST, Japan	Development of laser driven injector for a compact heavy ion radiotherapy system
12:30 - 14:00	LUNCH TIME (Organization Committee Meeting of US-Japan Forum for Advanced Accelerators)				
14:00 - 14:30 Invited	Quantum beams for medical and biological science & engineering (Chaired by K. KONDO)	25P-01	Antoine SNIJDERS	LBNL, USA	The BELLA PW laser proton beamline: a new platform for ultra-high dose rate radiobiological research
14:30 - 15:00 Invited		25P-02	Kei NAKAMURA	LBNL, USA	Proton beamlines for radiation biology application at the BELLA PW facility
15:00 - 15:30 Invited		25P-03	Takayasu KAWASAKI	KEK, Japan	Terahertz radiation to amyloid fibrils
15:30 - 16:00	Break				
16:00 - 16:30 Invited	Quantum beams for medical and biological science & engineering (Chaired by T. KLUGE)	25P-04	Keiichi NAKAGAWA	U. of Tokyo, Japan	Single-shot ultrafast imaging for observation of non-repetitive laser-induced plasma and shockwaves
16:30 - 17:00 Invited		25P-05	Takeharu NAGAI	Osaka U., Japan	Use of quantum beams in improving the properties of glowing pants
17:00 - 17:20		25P-06	Tomonao HOSOKAI	Osaka U., Japan	Drug discovery with high-energy electron beams
17:20 - 17:40 Invited		25P-07	Yasunobu YAMASHITA	Osaka U., Japan	Chemotherapy triggered by electron beams
Banquet	19:00 - 21:00				Senri Hankyu Hotel

April 26 (WED)

Time	Session / Chair		Speaker	Affiliation	Title of talk
9:00 - 9:10	Joint session with U.S. - Japan Forum for Advanced Accelerators (Chaired by M. YOSHIDA and M. BAI)	26A-01	Mitsuhiro YOSHIDA	KEK, Japan	Introductory talk
9:10 - 9:30 Invited		26A-02	Mei BAI	Stanford, USA	Grand challenges of future colliders
9:30 - 10:00 Invited		26A-03	Eric ESAREY	LBNL, USA	Laser plasma accelerator research at the BELLA Center
10:00 - 10:30 Invited		26A-04	Robert Joel ENGLAND	Stanford, USA	Particle Acceleration Using Laser-Driven Photonic Structures
10:30 - 11:00	Break				
11:00 - 11:30	Laser electron acceleration and FEL (Chaired by R. LOPEZ-MARTENS)	26A-05	Masaki KANDO	KPSI, QST, Japan	Current status of the MIRAI free-electron laser project using laser accelerated electron beams in Japan
11:30 - 12:00 Invited		26A-06	Marie-Emmanuelle COUPRIE	SOLEIL, France	The COXINEL seeded Free Electron Laser driven by the HZDR Laser Plasma Accelerator
12:00 - 12:20 Invited		26A-07	François Sylla	SourceLAB, France	KAIO-BEAMLINE, à modular high repetition rate laser electron accelerator for broad range of applications
12:20 - 15:30	Lunch (Q-BASIS 2024 Kickoff Meeting) / Poster presentations at SANKEN CReA (Chaired by Y. Gu and A. Rondepierre)				
15:30 - 16:00 Invited	Laser electron acceleration and FEL (Chaired by M. COUPRIE)	26P-01	Rodrigo LOPEZ-MARTENS	LOA, France	Lightwave control of relativistic plasmas
16:00 - 16:30 Invited		26P-02	Liming CHEN	SJTU, China	Ultra-high charge electron acceleration and nuclear applications
16:30 - 17:00 Invited		26P-03	Min CHEN	SJTU, China	Recent progresses of laser plasma based electron acceleration and radiation at Shanghai Jiao Tong university
17:00 - 17:20	Closing (Chaired by Y. SANO, T. HOSOKAI and M. KANDO)		Conference Chair		Closing, announcement of Q-BASIS 2024

Poster presentations at SANKEN CReA (Chaired by Y. Gu and A. Rondepierre)

Poster No.	Presenter	Title
PO-01	Boyuan Li	Efficient high-order harmonic generation via surface plasma compression with lasers
PO-02	Alexandre Rondepierre	Challenges to make LPA viable for industrial XFEL sources
PO-03	Wenchao Yan	Fold-rotational Symmetric Radiation Vortex stem from Nonlinear Thomson Scattering of Intense Laser with Circular Polarization Topology
PO-04	Duthika Dilrangi Perera	Development of a compact electron source using self-modulated laser wakefield acceleration driven by a Sub-TW class laser
PO-05	Sadaoki Kojima	Induction heating for desorption of surface contamination for high-repetition laser-driven heavy-ion acceleration
PO-06	Masayasu Hata	Numerical simulation of laser ion injector for quantum scalpel project
PO-07	Matthew S Freeman	LPA-Driven Electron Radiography at OMEGA EP
PO-08	Jinfeng Yang	Ultrafast electron microscopy with relativistic femtosecond electron pulses
PO-09	Tsuneto Kanai	Temperature-driven, Sub-100-fs Mode-locked Fiber Oscillators Based on the Symmetry-Broken Nonlinear Polarization Evolution Method
PO-10	James Kevin Koga	Simulation of self-focusing ultrashort femtosecond lasers in air for the detection of viruses and VOCs
PO-11	Hitoshi Soyama	Laser Cavitation Peening Using a Nd:YAG Laser with and without Q-switch
PO-12	Daiki Okazaki	Development of a 6-mJ, 100-Hz, femtosecond Yb:CaF ₂ regenerative amplifier for driving 4-micron KTA parametric amplifiers
PO-13	Shigeki Tokita	Temperature-driven, Sub-100-fs Mode-locked Fiber Oscillators Based on the Symmetry-Broken Nonlinear Polarization Evolution Method
PO-14	Kazufumi Nomura	In-line Detection of Internal Defects in Fillet Welded Sheet of Lap Joint by Laser Ultrasonic and Its Robotic Application Using Microchip Laser
PO-15	Haruya Matsumoto	Development of a Start-to-End simulation code for the laser-driven ion injector
PO-16	Tatsuhiko Miyatake	Optimization of laser irradiation conditions for high-brightness beam generation in laser-driven ion beams
PO-17	Kai Huang	Temporal measurement of laser wakefield electrons via electro-optic sampling
PO-18	Yuta Suzuki	Development of a high-power terahertz source based on laser-produced plasma for electron acceleration
PO-19	Yoshio Mizuta	Laser peening with microchip laser mounted on a controlled robotic arm
PO-20	Shigeru Yamamoto	Undulator light source with a compact, slender and lightweight frame based on a magnet technology developed for very-short-period undulators
PO-21	Yoshihide Honda	Current status and prospect of RLQBS in SANKEN
PO-22	Thanh-Hung Dinh	Development of a compact 50 TW laser for energetic quantum beam generation toward practical applications
PO-23	Alexei Zhidkov	Plasma Effects on Electron Beam Bunching in External Periodic Fields
PO-24	Naveen Chandra Pathak	Focusing and reduction of correlated energy spread of chirped electron beams in passive plasma lens.
PO-25	YanJun Gu	Study of gas jet stability for LWFA in the context of shock injection
PO-26	Zhan Jin	An Overview of Laser Wakefield Acceleration Platform in Spring-8
PO-27	Shingo Sato	Characterization of Plasma Targets for Electron Beam Generation in Laser Wakefield Acceleration Systems
PO-28	Illia Zymak	The electron beam diagnostic system for MeV range high repetition rate LWFA sources
PO-29	Masao Gohdo	The electronic structure of the solvated electron investigated by pulse radiolysis
PO-30	Nobuhiko Nakanii	Beam pointing control of laser wakefield accelerator by shaping near field profile of laser pulse
PO-31	Yusa Muroya	Picosecond pump-probe study on radiation-induced primary reaction processes of solutions at extreme conditions

April 27 (THU)

Optional tour	<p>Bus Tour Schedule</p> <p>10:30 Departure from Senri Hankyu Hotel</p> <p>11:50 – 12:45 Lunch(Japanese style)</p> <p>13:30 Arrival at RIKEN SPring-8 Campus</p> <p>(VisitingSPring-8, SACLA and LAPLACIAN)</p> <p>16:00 Departure form RIKEN SPring-8 Campus</p> <p>18:00 Arrival at Senri Hankyu Hotel</p> <p>18:30 Arrival at Shin-Osaka Station</p> <p>*Arrival time may be delayed due to traffic conditions.</p>	RIKEN SPring-8 Center
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