XOPT2023 Program

Date 18th (Tue) - 20th (Thu), April, 2023
Venue Room 313+314

Date: 18th April, 2023

JST	Session	Chair	Speaker	Affliation	Title
10:00	Opening		**Tetsuya Ishikawa**	RIKEN SPring-8 Center	XOPT Opening Remarks
10:05 - 10:35	Beamlines I		**Xianbo Shi**	Argonne National Laboratory	Progress on R&D of X-ray wavefront sensors and adaptive optics optimization and control at the Advanced Photon Source
10:35 - 11:05			**Luc Patthey**	Paul Scherrer Institute	SwissFEL soft X-ray beamline design and first results
11:05 - 11:35			**Marco Zangrando**	Elettra & CNR IOM	Recent results and developments of the FERMI photon beam transport and diagnostics system
11:35 - 13:15	Lunch (11:35 ~ 13:15)				
13:15 - 13:45	Beamlines II		**Bernd Christian Meyer**	Brazilian Synchrotron Light Laboratory	Opto-mechanical design and commissioning of the high energy Zoom-tomography beamline MOGNO
13:45 - 14:15			**Takahisa Koyama**	JASRI & RIKEN	Multilayer reflective optics for intense X-rays at SPring-8 and SACLA
14:15 - 14:30	Break (14:15 ~ 14:30)				
14:30 - 15:00	Methods & Applications		**Andrey Shavorskiy**	MAX IV Laboratory	Ambient Pressure XPS at MAX IV: challenges and opportunities of the high brightness of the 4th generation storage ring
15:00 - 15:15			Paul Fuoss	SLAC National Accelerator Laboratory	Accelerating Science and Optimizing X-Ray FEL Capabilities with Unified Modeling
15:15 - 15:30			Hideyo Kunieda	Aichi Synchrotron Radiation Center	Design of Multilayer Optics for Fluorescence X-ray Imaging
15:30 - 15:45			Takahiro Sato	SLAC National Accelerator Laboratory & RIKEN	Time-resolved full-field rocking curve imaging of X-ray optics for visualization of impulsive thermal effects
15:45 - 16:00			Yuri Shvyd'ko	Argonne National Laboratory	Signatures of misalignment in x-ray cavities of cavity-based x-ray free-electron lasers
16:00 - 16:20	Break (16:00 ~ 16:20)				
16:20 - 18:00	**OPIC Plenary@Room 301**				
18:30 -	**Banquet**				

Date: 19th April, 2023

JST	Session	Chair	Speaker	Affliation	Title
9:00 - 9:30	Metrology		**Mourad Idir**	Brookhaven National Laboratory	Optical metrology for synchrotron mirrors at NSLS-II
9:30 - 9:45			Analia Fernández Herrero	Helmholtz-Zentrum Berlin	Ex-situ and at-wavelength metrology for the production of novel optical elements
9:45 - 10:00	X-ray Telescopes		Kairyu Tsuchiya	Tokyo Denki University	Prototyping of Planar CFRP-NiP Mirrors for High Angular Resolution X-ray Telescopes
10:00 - 10:15			Ryuto Fujii	Nagoya University	Development of high-angular resolution space X-ray telescope for the solar sounding rocket mission FOXSI-4
10:15 - 10:30	Break (10:15 ~ 10:30)				
10:30 - 11:00	Joint Session (ALPS, HEDS, XOPT)	Fumihiko Kannari	**Michal Košelja**	ELI Bemlines	Development of large size single crystals for High Power Lasers
11:00 - 11:30		Makina Yabashi	**Kazuto Yamauchi**	Osaka University	Generation of extremely intense photon field by condensation of X-ray free electron laser SACLA less than 10nm
11:30 - 12:00		Yasuhiko Sentoku	**Annie Kritcher**	Lawrence Livermore National Laboratory	Design of first fusion experiment to achieve target gain >1
12:00 - 13:30	Lunch (12:00 ~ 13:30)				
13:30 - 15:00	**Poster session (Pacifico Yokohama Exhibition Hall A)**				
15:00 - 15:15	Break (15:00 ~ 15:15)				
15:15 - 15:30	Applications		Clemens Schulze-Briese	DECTRIS Ltd.	EIGER2 CdTe Detectors for Hard X-ray Research
15:30 - 15:45			Florian Döring	XRnanotech GmbH	Diffractive X-ray Optics – New Trends and Developments
15:45 - 16:00			Sergey Antipov	PALM Scientific	Commercial Diamond X-Ray Lenses: A Comprehensive Review of a Parameter Space
16:00 - 16:20	Break (16:00 ~ 16:20)				
16:20 - 18:50	**OPIC Plenary@Room 301**				
19:00 -	**OPIC Banquet**				

Date: 20th April, 2023

JST	Session	Chair	Speaker	Affliation	Title
9:00 - 9:15	X-ray Optics I		Talgat Mamyrbayev	Paul Scherrer Institut	Diffractive optics for X-ray free-electron laser applications
9:15 - 9:30			Jumpei Yamada	Osaka University & RIKEN	Design, fabrication, and implementation of XFEL sub-10 nm focusing mirrors
9:30 - 9:45			Leroy Dean Chapman	University of Saskatchewan	A deeper understanding of bent Laue crystal X-Ray optics – monochromatic focusing
9:45 - 10:00			Michele Manfredda	Elettra - Sincrotrone Trieste - S.C.p.A	Wavefront sensing : Investigating FEL sources and Optics tuning
10:00 - 10:15			Patrícia Estrela	GoLP/IPFN, Instituto Superior Técnico- Lisboa	High Harmonic Tubes: Generating EUV vortex beams with extended focal field
10:15 - 10:30	Break (10:15 ~ 10:30)				
10:30 - 11:00	X-ray Imaging I		**Jasper Frohn**	Institute for X-ray Physics - Göttingen University	X-ray optics and 3D multi-scale bioimaging at P10/PETRA III
11:00 - 11:15			Gota Yamaguchi	RIKEN SPring-8 Center	Hard X-ray in-line holography using high-NA (0.01) focusing system
11:15 - 11:30			Yoko Takeo	ISSP, The University of Tokyo & JASRI & RIKEN	Single-shot spectro-microscopic imaging with Wolter mirrors and multi-aperture grating at BL1 of SACLA
11:30 - 11:45			KyeoReh Lee	Korea Advanced Institute of Science and Technology	Full-field quantitative X-ray phase nanotomography using space-domain Kramers–Kronig relations
11:45 - 12:00			Haruki Nishino	JASRI & RIKEN	CITIUS: a 17400 frames/s X-ray imaging detector with a linear response of up to 945 Mcps/pixel
12:00 - 13:30	Lunch (12:00 ~ 13:30)				
13:30 - 14:00	X-ray Imaging II		**Dina Carbone**	MAX IV Laboratory	A 3D microscopy for crystalline materials at 4th generation Synchrotron sources
14:00 - 14:15			Mikhail Lyubomirskiy	CXNS, DESY	Coded multi-probe X-ray Ptychography
14:15 - 14:30			Kai Sakurai	The University of Tokyo	Soft X-ray XAFS ptychography for chemical state analysis of mammalian cells
14:30 - 14:45	Break (14:30 ~ 14:45)				
14:45 - 15:00	X-ray Optics II		Nazanin Samadi	Paul Scherrer Institute	Design, fabrication, and testing of refractive axicons for X-ray microscopy application
15:00 - 15:15			Rafael Celestre	ESRF - The European Synchrotron	Tilted x-ray lenses and the fine-tuning of their focal length
15:15 - 15:30			Igor Makhotkin	University of Twente	Development of Si, SiC and polymer nano-focussing lenses at the University of Twente
15:30 - 15:45			Ken Vidar Falch	Deutsches Elektronen-Synchrotron	Varifocal Compound Refractive Lenses
15:45 - 16:00			Peng Qi	Paul Scherrer Institut	Recent developments of achromatic and apochromatic X-ray lenses
16:00 - 16:15			Lorenzo Raimondi	Elettra-Sincrotrone Trieste	Scattering effect from mirror surface defects: analytical and simulation approach
16:15	Closing		**Kazuto Yamauchi**	Osaka University	XOPT Closing Remarks
16:30	Departure				

Posters

Poster session	Speaker	Affliation	Title
1	Akio Yoneyama	SAGA Light Source	Development of Cryo-Micro X-ray CT and its Applications at SAGA Light Source
2	Juan Reyes-Herrera	European Synchrotron (ESRF)	Modelling techniques for insertion device power management, photon transport and coherence propagation for ESRF beamlines
3	Zhong Yin	Tohoku University	Following fs Dynamics with a soft X-ray HHG Source
4	Danny Fainozzi	Elettra Sincrotrone	Towards Hard X-ray transient grating spectroscopy
5	Jangwoo Kim	Pohang Accelerator Laboratory	Surface Figure Correction using Differential Deposition Method for High-Precision X-ray Mirror Fabrication
6	Bo-Yi Chen	National Synchrotron Radiation Research Center	The Development of the TXM Endstation for TPS 31A
7	Kang-Ching Chu	National Synchrotron Radiation Research Center	The Applicability of a Convolutional Neural Networks Denoising Approach for X-ray Coherent Diffraction Imaging
8	Ye Zhu	Institute of Advanced Science Facilities, Shenzhen	Design and optimization of the Plane VLS Grating Monochromator in S3FEL
9	Giang Tran	RIKEN	Computational lensless imaging using broadband attosecond pulses
10	Yi-Wei Tsai	National Synchrotron Radiation Research Center	Hard X-ray Ptychography using Zone Plate in Taiwan Photon Source
11	Tang Li	CXNS, DESY	Numerical studies for bandwidth and probe numbers upper limit in case of multiple beam ptychography
12	Xiangjin Kong	Fudan University	Nuclear phase retrieval spectroscopy using resonant x-ray scattering
13	Tetsuya Hoshino	University of Tsukuba	Rigorous 3D analysis of isolated resist pattern using soft X-ray spectrum
14	Chika Kamezawa	Photon Factory, KEK	Feasibility study of 3D X-ray elastography using laboratory X-ray source.
15	Kota Kumagai	Utsunomiya University	X-ray and visible imaging system based on spatially selective generation of femtosecond-laser-driven light source
16	Yanwen Sun	SLAC National Accelerator Laboratory	Design and performance analysis of a quasi-linear instrument for hard x-ray photon correlation spectroscopy
17	Sota Nakabayashi	Nagoya University	Development of ultraprecise X–ray adaptive optical system for high-resolution full–field microscopy
18	Shinnosuke Kurimoto	Nagoya University	X-ray Fourier ptychography using advanced Kirkpatrick-Baez mirrors
19	Kyota Yoshinaga	ISSP, The University of Tokyo	Design of Wolter Mirror and Multi-Aperture Grating for Single-Frame Spectromicroscopy with Multicolor Soft X-ray Beam
20	Shotaro Matsumura	Osaka University	Surface finishing of a micro channel-cut crystal monochromator using high-pressure plasma etching
21	Nazanin Samadi	Paul Scherrer Institute	Blazed X-Ray Diffraction Gratings Fabricated by Grey-Tone Electron-Beam Lithography and Thermal Oxidation of Silicon
22	Atsuki Ito	The University of Osaka	direct focus characterization of sub-10 nm XFEL using speckle patterns from random nanoparticles
23	Iori Ogasahara	Osaka University	Development of distortion-free processing for narrow-gap channel-cut crystal monochromators using plasma chemical vaporization machining with a wire electrode
24	Kota Shioi	Osaka University	Beam diameter characterization of sub-10 nm XFEL using ptychography
25	Yumin Heo	Pusan National University	X-ray Vector Radiography for Bone Micro-structure
26	Atsushi Yakushigawa	Osaka University	Development of phase-contrast imaging method for X-ray nanotomography with full-field X-ray microscope based on AKB mirror
27	Andrey Sokolov	BESSY-II	At-Wavelength Metrology for sophisticated diffractive optics in the EUV, XUV and tender X-ray energy range
28	Kouhei Okitsu	The University of Tokyo	Computer-simulated and experimentally obtained n-beam Pinhole topopgraphs