XOPT2025 Program

April 22(Tue)-April 24(Thu), 2025 Date Room 313+314 Venue



Day1: April 22 (Tue) JST Session Speaker Affiliation Title Opening 9:40 9:45 9:45 10:00 MAX IV Laboratory On the benefits of small emittance storage rings Aymeric Robert Takahiro Sato 10:00 10:15 Makina Yabashi RIKEN SPring-8 Center An Overview of the SPring-8-II Upgrade Project Facility (SLAC) 10:15 10:45 (Invited) Jiawei Yan European XFEL Generation of high-power attosecond hard X-ray free-electron laser pulses at the European XFEL 10:45 11:10 Coffee Break 11:10 11:25 SLAC National Accelerator Laboratory Development of Nano-focus Capability and Applications at the XPP instrument at LCLS Takahiro Sato Kawal Sawhney 11:25 11:40 Optics (I) Lei Huang Brookhaven National Laboratory Manufacturability-based optical design optimization for advanced Kirkpatrick-Baez X-ray focusing mirrors (Diamond Light Source) 11:40 11:55 Qiushi Huang Tongi University Metrology and manufacture of X-ray reflective optics with nanometer accuracy 11:55 13:25 Lunch Break 13:25 13:55 Diamond Light Source Optics and Metrology for Diamond-II upgrade (Invited) Kawal Sawhney 13:55 14:10 Huang-Wen Fu NSRRC The Active Mirror Plane Grating Monochromator Lei Huang Optics (II) 14:10 14:25 Natalia Gerasimova European XFEL High resolution prospects for the soft X-ray experiments at European XFEL (Brookhaven National Lab.) 14:25 14:40 Shutaro Mohri The University of Tokyo Development of figure correction system based on thickness of Si for large Wolter mirror 14:40 14:55 Yusuke Yoshida Nagoya University Development of high-resolution space X-ray optics for the solar flare sounding rocket FOXSI-4: current status and future prospects Photo & Break 14:55 15:30 Gas Optics for Inertial Fusion Energy Lasers 15:30 16:00 Matthew R. Edwards (ALPS) Hitoki Yoneda Stanford University ALPS & HEDS & XOPT Joint session Room 303 Nicholas Hartley (HEDS) SLAC National Accelerator Laboratory 16:00 16:30 Yuki Abe HED Science with XFELs - Results and Future Directions 16:30 17:00 Makina Yabashi (RIKEN) (Invited) Stefan Vogt (XOPT) Argonne National Laboratory The Upgraded APS – Status, Early Results, and Opportunities 17:00 18:30

Dav2:	April	23	(Wed)	

18:30 20:30

J:	ST	Session	Chair	Speaker	Affiliation	Title
9:00	9:30			(Invited) Xiaojing Huang	Brookhaven National Laboratory	Future Coherent X-ray Imaging Capability at NSLS-II
9:30	9:45	Imaging (I)	Manuel Guizar-Sicairos	Maik Kahnt	MAX IV	Imaging of smallest signals - hard x-ray dichroic ptychography at the iron K edge
9:45	10:00		(PSI)	Yuhei Sasaki	Tohoku University	Development of Tender X-ray Spectroscopic Ptychography Measurement System Using Advanced Kirkpatrick-Baez Mirrors
10:00	10:15			Tang Li	DESY	High-Resolution Imaging with Multibeam Ptychography: A Pathway to Unlocking Insights into Complex Samples
10:15	10:35				C	Coffee Break
10:35	11:05			(Invited) Kenji Tamasaku	RIKEN SPring-8 Center	Spatial X-ray Modulator
11:05	11:20		Hiroto Motoyama	Ralf Hendrik Menk	Elettra Sincrotrone Trieste	Advances in X-ray Spectral and Phase Contrast Imaging: A Unified Approach for a Multi-Modal Imaging System
11:20	11:35	Imaging (II) / Method	(U. Tokyo)	Farangis Foroughi	University of Saskatchewan	An Advanced Analysis Method for Multiple Image Radiography(MIR)
11:35	11:50			Artem Saleev	Forschungszentrum Jülich	Towards Near Real-time Computation of Autocorrelation Functions for X-ray Photon Correlation Spectroscopy using FPGAs
11:50	12:05			Vladimir Lipp	European XFEL	Development and validation of modeling software SURFwiX to guide high-precision processing of materials of industrial relevance
12:05	13:30				ι	Lunch Break

XOPT Banquet

Poster Session Pacifico Yokohama Exhibition Hall A

> **OPIC Plenary** Room 501+502

13:30 15:00

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JST	Session	Chair	Speaker	Affiliation	Title
:00 9:30		Marilla Maria	(Invited) Pablo Villanueva-Perez	Lund University	Novel Al-Driven 3D and 4D Imaging Opportunities at High-Brilliance Sources
30 10:00	Imaging (III)	Maik Kahnt (MAX IV)	(Invited) Viktor Nikitin	Argonne National Lboratory	New Developments and Advanced Reconstruction Algorithms in Nano-Holotomography
:00 10:15			Yukie Nagai	The University of Tokyo	Comparison of Synchrotron X-ray CT volumes and Lab-based X-ray CT volumes towards Industrial Applications
):15 10:35					Coffee Break
:35 10:50			Michele Manfredda	Elettra - Sincrotrone Trieste	Wavefront sensing at FELs: old tricks and new challenges with OAM beams, structured illumination and source metrology
:50 11:05	XFEL	Yuya Kubota (RIKEN)	Yoko Takeo	The University of Tokyo	Shot-by-shot analysis of spatially varying spectra in soft X-ray free-electron laser
:05 11:20			Zhi Qiao	ShanghaiTech Unversity	Arrival timing diagnostic tools at Shanghai Soft X-ray Free Electron Laser (SXFEL)
:20 11:35	Optics (III)		Masafumi Miyake	Osaka University	Development of an etching technique using atmospheric pressure plasma to realize a distortion-free Ge channel-cut crystal monochromator
:35 11:50	Optics (iii)		Tianyi Wang	Brookhaven National Laboratory	Key Aspects of Sub-Nanometer Ion Beam Figuring for Synchrotron Hard X-Ray Mirror Fabrication
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1:50 13:50					Lunch Break
			Xianbo Shi	Argonne National Laboratory	Lunch Break Measurements of source emittance and beam coherence properties of the upgraded APS
3:50 13:50 3:50 14:05 1:05 14:20	Optics (IV)	Aymeric Robert	Xianbo Shi Felix Wittwer	Argonne National Laboratory University of Siegen	
3:50 14:05	Optics (IV)	Aymeric Robert (MAX IV)			Measurements of source emittance and beam coherence properties of the upgraded APS
3:50 14:05 1:05 14:20	Optics (IV)		Felix Wittwer	University of Siegen	Measurements of source emittance and beam coherence properties of the upgraded APS Annular refractive x-ray lenses
3:50 14:05 4:05 14:20 4:20 14:35	Optics (IV)	(MAX IV)	Felix Wittwer	University of Siegen	Measurements of source emittance and beam coherence properties of the upgraded APS Annular refractive x-ray lenses Bragg reflection X-ray polarimeter based on a bent silicon crystal using hot plastic deformation
3:50 14:05 3:05 14:20 3:20 14:35 3:35 15:00	Optics (IV)	(MAX IV) Takashi Kimura	Felix Wittwer Daiki Ishi	University of Siegen ISAS/JAXA	Measurements of source emittance and beam coherence properties of the upgraded APS Annular refractive x-ray lenses Bragg reflection X-ray polarimeter based on a bent silicon crystal using hot plastic deformation Coffee Break
.50 14:05 .05 14:20 .20 14:35 .35 15:00 .00 15:15		(MAX IV)	Felix Wittwer Daiki Ishi Mikhail Lyubomirskiy	University of Siegen ISAS/JAXA Lund University	Measurements of source emittance and beam coherence properties of the upgraded APS Annular refractive x-ray lenses Bragg reflection X-ray polarimeter based on a bent silicon crystal using hot plastic deformation Coffee Break Tilting X-ray Ptychography