

XOPT2022 Program

Date: 19th-21st, April, 2022

Hybrid conference (Zoom meeting, in-person meeting at Yokohama, Japan)

Date: 19th April, 2022

CEST	PDT	EDT	JST	Session	Chair	Speaker	Title
6:00	21:00	0:00	13:00	Opening		Tetsuya Ishikawa	XOPT Opening Remarks
6:05	21:05	0:05	13:05	Facility I	Makina Yabashi	Diling Zhu	Crystal Optics at LCLS-II HE: Challenges and Opportunities
6:20	21:20	0:20	13:20			Shigeki Owada	Recent status and future perspective of SACLA
6:35	21:35	0:35	13:35			Harald Sinn	New X-ray optical developments at the European XFEL
6:50	21:50	0:50	13:50			Iliia Petrov	Performance of a cryo-cooled crystal monochromator illuminated by hard X-rays with MHz repetition rate at the European XFEL
7:05	22:05	1:05	14:05			Mangalika Sinha	Multimodal spectroscopy with upgraded TRIXS end-station at FLASH
7:20	22:20	1:20	14:20			Beamline optics I	
7:35	22:35	1:35	14:35				
7:50	22:50	1:50	14:50				
8:05	23:05	2:05	15:05				
8:20	23:20	2:20	15:20	Facility II	Harald Sinn	Aymeric Robert	Current opportunities and early results from MAX IV, the first MBA light source
8:35	23:35	2:35	15:35	Beamline optics II		Hirokatsu Yumoto	Advancement of x-ray optics for high-energy high-flux beamlines at SPring-8
8:50	23:50	2:50	15:50	Method & Application	Satoshi Matsuyama	Angel Rodriguez-Fernandez	Imaging Ultrafast dynamical diffraction wavefronts with Tele-ptychography
9:05	0:05	3:05	16:05			Yoshiki Kohmura	X-ray three-dimensional imaging using ultra-thin laminar light
9:20	0:20	3:20	16:20			Wolfgang Voegeli	Multibeam X-ray optical system for time-resolved CT using σ -polarization scattering configuration
9:35	0:35	3:35	16:35			Shuntaro Takazawa	Development of single-frame coherent X-ray diffraction imaging using triangular aperture
9:50	0:50	3:50	16:50				
10:05	1:05	4:05	17:05				

Date: 20th April, 2022

CEST	PDT	EDT	JST	Session	Chair	Speaker	Title
2:00	17:00	20:00	9:00	OPIC Plenary			
2:30	17:30	20:30	9:30				
3:00	18:00	21:00	10:00				
3:30	18:30	21:30	10:30				
4:00	19:00	22:00	11:00				
4:30	19:30	22:30	11:30				
5:00	20:00	23:00	12:00	Lunch			
5:30	20:30	23:30	12:30				
6:00	21:00	0:00	13:00				
6:30	21:30	0:30	13:30	XFEL optics/applications	Diling Zhu	Alex Halavanau	High-Resolution Crystal Optics Characterization for X-ray FEL Applications
6:45	21:45	0:45	13:45			Yanwen Sun	Hard x-ray split-delay system at the Linac Coherent Light Source
7:00	22:00	1:00	14:00			Takahiro Sato	Recent progress of developments and applications of the X-ray Pump Probe instrument at LCLS
7:15	22:15	1:15	14:15			Taito Osaka	Direct characterization of hard x-ray laser pulse duration via intensity autocorrelation techniques
7:30	22:30	1:30	14:30			Shotaro Matsumura	Stretching pulse duration of hard X-ray laser up to 50 ps using rotated-inclined crystals
7:45	22:45	1:45	14:45	Ichiro Inoue	Ultrafast structural changes in matter induced by intense X-ray laser pulses		
8:00	23:00	2:00	15:00				
8:15	23:15	2:15	15:15	Soft x-ray optics	Hiroto Motoyama	Takashi Kimura	Direct Observation of Nanoparticle Structures in Microfluidic Device using Single Pulses of X-ray Free-Electron Laser
8:30	23:30	2:30	15:30			Alexei Erko	Broad-Band Time Delay Compensated Monochromator for soft X-rays
8:45	23:45	2:45	15:45			Satoru Egawa	Development of a soft X-ray full-field microscope at SACLA
9:00	0:00	3:00	16:00				
9:15	0:15	3:15	16:15				
9:30	0:30	3:30	16:30	Advanced imaging	Satoshi Matsuyama	Motohiro Suzuki	Three-dimensional visualization of magnetic domain structures using magnetic X-ray microtomography
9:45	0:45	3:45	16:45			Jumpei Yamada	Development of mirror-based full-field X-ray microscope toward XANES nano-CT measurement
10:00	1:00	4:00	17:00	X-ray optics I		Jörn Volker Wochowski	Highly Flexible Coated Hollow Capillaries for Synchrotron Radiation
10:15	1:15	4:15	17:15			Florian Döring	Advanced nanolithography - Unlocking unprecedented potential of nanostructured optical elements
10:30	1:30	4:30	17:30				

Date: 21th April, 2022

CEST	PDT	EDT	JST	Session	Chair	Speaker	Title	
2:00	17:00	20:00	9:00	X-ray mirror	Kazuto Yamauchi	Lei Huang	Multi-pitch Nano-accuracy Surface Profiler	
2:15	17:15	20:15	9:15			Lahsen Assoufid	Optics developments for the Advanced Photon Source upgrade	
2:30	17:30	20:30	9:30					
2:45	17:45	20:45	9:45	Theory	Ichiro Inoue	Kouhei Okitsu	N-beam dynamical theory and computer simulations compared with experimental results	
3:00	18:00	21:00	10:00					
3:15	18:15	21:15	10:15					
3:30	18:30	21:30	10:30	Poster session				
4:00	19:00	22:00	11:00					
4:30	19:30	22:30	11:30					
5:00	20:00	23:00	12:00					
5:15	20:15	23:15	12:15		Lunch			
5:30	20:30	23:30	12:30					
5:45	20:45	23:45	12:45					
6:00	21:00	0:00	13:00					
6:15	21:15	0:15	13:15					
6:30	21:30	0:30	13:30	Joint session (ALPS, HEDS, XOPT)	Hitoki Yoneda	Kazuo Tanaka	New Institute Emerging in Romania with 10 PW (1016 W) Laser Beams: Extreme Light Infrastructure: ELI-NP	
6:45	21:45	0:45	13:45		Keisuke Shigemori	Norimasa Ozaki	Dynamic high-pressure research using high-power lasers	
7:00	22:00	1:00	14:00		Makina Yabashi	Ikuyuki Mitsuishi	Revealing mysteries in astronomy with ground- and space-based X-ray optics technologies	
7:15	22:15	1:15	14:15					
7:30	22:30	1:30	14:30					
7:45	22:45	1:45	14:45					
8:00	23:00	2:00	15:00					
8:15	23:15	2:15	15:15					
8:30	23:30	2:30	15:30	X-ray telescope	Hirokatsu Yumoto	Gota Yamaguchi	Fabrication of nickel electroformed mirrors for lightweight and high-resolution Wolter type-I telescopes	
8:45	23:45	2:45	15:45			Koki Sakata	Space electroformed X-ray optics development for the FOXSI-4 sounding rocket experiment	
9:00	0:00	3:00	16:00	Nanofocusing optics		Takato Inoue	Development of sub-5 nm focusing system based on piezoelectric deformable mirrors	
9:15	0:15	3:15	16:15			Takenori Shimamura	Development of ultrashort Kirkpatrick-Baez mirrors for sub-50-nm achromatic soft-X-ray probes	
9:30	0:30	3:30	16:30			Anatoly Snigirev	25 years of X-ray refractive optics development – new opportunities for coherence related applications	
9:45	0:45	3:45	16:45	X-ray optics II		Irina Snigireva	Status of the development of the diamond X-ray refractive optics	
10:00	1:00	4:00	17:00	Closing		Kazuto Yamauchi	XOPT Closing Remarks	

Posters

p1	Masoud Mehrjoo	Differentiable programming streamlines ptychography in the soft X-ray regime
p2	Fatima Herranz-Trillo	Combined SAXS-UV-Fluorescence (SURF) for diagnostic and enhanced information
p3	Polina Medvedskaya	Nano-polycrystalline diamond as a material for refractive X-ray lenses
p4	Mikhail Sorokovikov	X-ray beam expander based on a multilens
p5	Haoyuan Li	Generation of highly mutually coherent hard x-ray pulse pairs with an amplitude-splitting delay line
p6	Akio Yoneyama	SAGA Light Source Data KArte System (SAKAS) and its application for micro CT
p7	Sota Nakabayashi	Novel deformable X-ray mirrors based on lithium niobate single crystal
p8	Atsuki Ito	Beam size characterization method of sub-10 nm focused XFEL using uniform nanospheres
p9	Iori Ogasahara	Processing method using plasma chemical vaporization machining with wire electrode for narrow-gap channel-cut crystal X-ray monochromators
p10	Yuto Tanaka	Propagation-based phase-contrast imaging for full-field X-ray microscope with advanced Kirkpatrick-Baez mirror
p11	Xiaoyu Liang	Developing a multibeam X-ray imaging system for high-speed 4D tomography
p12	Kai Sakurai	Soft X-ray imaging of living cells with a micro solution holder