

Scheduled experiments - Run 202302

July – November 2023

ID	Title	Main Proposer / Principal Investigator	Instrument
5417	LTP - Dynamics of nanoscale phenomena in solids and liquids studied with X-ray Transient Gratings at European XFEL (Long-Term-Project experiment derived from 3323)	Dr. Cristian Svetina	FXE SASE1
4507	Probing the aurophilicity and solvation dynamics in stimuli-responsive dimer complexes	Dr. Dmitry Khakhulin / Dr. Chris Milne	FXE SASE1
4471	Pump-probe XAS of Cu(I) complexes by using ghost spectroscopy	Prof. Dr. Sharon Shwartz	FXE SASE1
4237	Ultrafast structural dynamics driven by laser-induced demagnetization in presence of strong spin-phonon coupling	Dr. Maurizio Sacchi / Prof. Dr. Franck Vidal	FXE SASE1
4079	Uncovering the nature of ultrafast lattice dynamics driving polaron formation in bismuth vanadate films for artificial photosynthesis	Prof. Dr. Felix Deschler	FXE SASE1
3716	Disentangling the exciton dynamics and hole localization in colloidal CuInS ₂ quantum dots	Dr. Andrés Burgos Caminal / Prof. Dr. Wojciech Gawelda	FXE SASE1
3777	High-resolution measurements of the electronic response of materials from the visible to extreme ultraviolet	Dr. Thomas R. Preston	HED SASE2
4446	Exploring low-z Hydrogen jet targets for time-resolved x-ray probing of relativistic laser plasmas at high-repetition rate	Dr. Sebastian Goede	HED SASE2
4491	Towards understanding heating mechanisms of warm dense matter using short pulse laser	Dr. Sophia Malko	HED SASE2
4520	Phase transitions in amorphous solids under shock loading	Dr. Sally June Tracy	HED SASE2
4463	Low-Z Mixtures at Planetary Interior Conditions	Prof. Dr. Dominik Kraus / PD Dr. Alessandra Ravasio	HED SASE2
4535	Metallization and structural transition in solid-dense Krypton	Mr. Anand P Dwivedi / Prof. Dr. Valerio Cerantola	HED SASE2
3248	LTP - Establishing high-quality ultra-fast total scattering/pair distribution function techniques (uf-TS/PDF) at the EuXFEL for time-dependent studies of local (dis)ordering processes (Long-Term Project experiment)	Prof. Dr. David Keen	HED SASE2
4451	Ultrafast Polaronic Lattice Distortions in Perovskite-oxide Nanocrystals during Photocatalytic Conditions by Time-resolved Bragg Coherent Diffraction Imaging	Prof. Dr. Hyunjung Kim	MID SASE2
4559	Single-shot wavefront characterisation of focusing optics by grating interferometry	Dr. Alexey Zozulya / Dr. Mikako Makita	MID SASE2
4448	Diffusive dynamics in bulk supercooled water: The unique case of hyperquenched glassy water	Prof. Dr. Thomas Loerting	MID SASE2
4239	Nonlinear phononics studied by time-resolved X-ray diffraction	Dr. Jan-Etienne Pudell / Dr. Mathias Sander	MID SASE2

4442	Combined imaging-diffraction characterization of shock waves in metallic materials	Prof. Dr. Andras Borbely	MID SASE2
5397	LTP - MHz XPCS enabled studies of dynamics, interactions and aggregation phenomena in protein solutions (Long-Term-Project experiment derived from 3348)	Prof. Dr. Christian Gutt	MID SASE2
4137	Time-domain dynamics of the breathing-distortion in the photo-induced metal-insulator transition of NdNiO ₃ by laser pump - RIXS probe	Dr. Thorsten Schmitt	SCS SASE3
4256	Transient modification of oxygen hybridization in a cuprate superconductor	Dr. Mark P. M. Dean	SCS SASE3
4476	Dynamics of charge transfer across strongly-correlated oxide interfaces	Dr. Teguh Citra Asmara	SCS SASE3
4342	The photo-induced excitonic state of NiO and its coupling to spin order	Prof. Dr. Giacomo Ghiringhelli	SCS SASE3
4511	Femtosecond to millisecond time-resolved structural studies of photoconversion in plant phytochromes	Prof. Dr. Jon Hughes / Prof. Dr. Karsten Heyne	SPB/SFX SASE1
4423	Characterization of early intermediates in the photoactivation pathway of a bacterial adenylate cyclase	Dr. Sofia M Kapetanaki / Dr. Martin Weik	SPB/SFX SASE1
4502	Deciphering the half-reductive reaction mechanism of a human flavoprotein by TR-SFX with Minimized Sample Consumption at the EuXFEL	Prof. Dr. Alexandra Ros	SPB/SFX SASE1
4462	Single particle imaging of laser-aligned (bio-) nanoparticles	Dr. Amit Kumar Samanta	SPB/SFX SASE1
4417	Visualizing polaron formation in perovskite quantum dots	Dr. Kartik Ayyer	SPB/SFX SASE1
4556	Ultrasound-activatable droplets for brain tumor therapy	Prof. Dr. Emmanouil Manolis Gavaises / Dr. Christine PEPIN	SPB/SFX SASE1
4456	Convergent-Beam Serial Crystallography	Prof. Dr. Henry Chapman	SPB/SFX SASE1
4036	2D crystals of bacterial spore coat proteins	Imrich Barak	SPB/SFX SASE1 (Screening)
4099	Structure Determination of Crystalline and Quasiperiodic Designer DNA Molecular Scaffolds with XFEL Pulses	Lourdu Xavier Paulraj	SPB/SFX SASE1 (Screening)
3375	Structure and Function of Heme Dioxygenases	Dr. Hanna Kwon	SPB/SFX SASE1 (Screening)
4396	Resonant coherent diffractive imaging of free-flying sea salt aerosol particles	Dr. Minna Patanen	SQS SASE3
4504	Dynamics Before Destruction: Saving the O ₂ Molecule	Prof. Dr. Jan-Erik B. I. Rubensson / Dr. Johan Chau Söderström	SQS SASE3
4455	Two-color x-ray stimulated Raman scattering from atoms and molecules using photon-recoil imaging	Prof. Dr. Ulli Eichmann	SQS SASE3
3004	Megahertz Single-Particle Diffractive Imaging of Macromolecular Scaffolds	Lourdu Xavier Paulraj	SQS SASE3
4098	Low background high-repetition rate 3D X-ray imaging of single bio-particles using a helium-electrospray	Dr. Tej Varma Yenupuri / Prof. Dr. Filipe Maia	SQS SASE3

4461 / 5638 / 5639	Community Proposal: Twisted bilayer MoS2 and Au nanoparticles on TiO2	Dr. Markus Scholz / Prof. Dr. Kai Rossnagel	SXP SASE3
4515	Bulk ferroelectricity coupled to electron and lattice dynamics in GeTe (Community Proposal)	Dr. Vladimir N. Stokov / Prof. Dr. Claude Monney	SXP SASE3
4316	Community Proposal on ultrafast screening dynamics and collective excitations in hybrid plasmonic heterostructures	Dr. Giancarlo Panaccione / Dr. Tommaso Pincelli	SXP SASE3