

**Scheduled experiments - Run 202201**

**February – June 2022**

<b>ID</b>	<b>Title</b>	<b>Main Proposer / Principal Investigator</b>	<b>Instrument</b>
2787	Controlling potential energy landscapes in Fe-based molecular photosensitizers by solvent acceptor number	Nielsen	FXE SASE1
2790	Ultrafast structural dynamics in metal complex photosensitisers and catalysts: does intersystem crossig dictates the properties?	Weinstein	FXE SASE1
2794	Ultrafast probing of the atomic structure of supercooled liquid metals	Sobierajski / Antonowicz	FXE SASE1
2796	Ultrafast Time-Resolved Dynamics in Liquid Crystals Probed by X-Ray Diffraction	Friebel / Cattaneo	FXE SASE1
2823	Deciphering the intramolecular charge transfer and structural dynamics in a Cu(I)-phenanthroline complex using ultrafast valence-to-core X-ray emission spectroscopy and X-ray scattering	Choi/ Katayama	FXE SASE1
2850	Exploring Electronic and Nuclear Structural Changes due to Photoexcitation in Water Oxidation Model Clusters and Catalysts by Simultaneous X-ray Emission and Scattering Measurements	Chen	FXE SASE1
2867	A systematic study of the liquid-liquid transitions in the no-man's land of phase-change materials	Wei	FXE SASE1
3073	High-repetition SFX of Crystalline Hybrid Solids for Material Discovery	Hohman	FXE SASE1
3167	Vibrational coherences in Mn-based single-molecule magnets	Johansson	FXE SASE1
2737	Phase Transitions Driven by Intense X-ray Pulses	Hartley	HED SASE2
2758	Microstructural evolution of materials under rapid loading and release	Antonelli / Higginbotham	HED SASE2
2804	Spin states of FeS and FeHx at and beyond telluric core-mantle boundary conditions by simultaneous x-ray emission and x-ray diffraction	Sternemann / Cerantola	HED SASE2
2806	Spectroscopic investigation of atomic physics in isochorically heated Cu	Smid / Falk	HED SASE2
2818	Ultrafast expansion in relativisticly intense laser interaction with solids	Kluge	HED SASE2
2838	Superionic State in Al2O3 under FEL irradiation	Volkov / Zastrau	HED SASE2
2844	Kinetics and dynamics of fast transformations at extreme conditions	Bykova / Goncharov	HED SASE2
2854	Kinetic instabilities in the interaction of ultra-intense ultra-short laser pulses with solids	Kluge / Schlenvoigt	HED SASE2
2855	Formation of Novel Superhydrides by X-ray Heating	Schwartz / Salamat	HED SASE2
2859	Relativistic laser driven dynamics of solids and heating of buried layers probed with high spatial and temporal resolution Matter under extreme conditions, warm dense matter, plasmas	Kluge / Huang	HED SASE2
2881	Direct observation of relativistic transparency in overcritical foam targets and impact of foam sub structure on laser energy coupling	Toncian / Nagler	HED SASE2

2894	Energy exchange and relaxation dynamics in relativistic plasmas	Zastrau	HED SASE2
2778	Multiphoton Collective Lambshift in Nuclear Resonant Scattering	Roehlsberger / Evers	MID SASE2
2798	Laser-induced ultrafast melting of octahedral palladium nanocrystals	Robinson	MID SASE2
2832	Ultrafast X-ray Photon Correlation Spectroscopy - A Community Proposal	Grübel / Perakis	MID SASE2
2834	Dynamics of exciton condensation in a charge-density-wave system	Scholz / Rossnagel	MID SASE2
2843	Dynamics in supercooled liquids using hard X-ray self-seeding	Dallari / Lehmkuhler	MID SASE2
2853	Structural rearrangements during de-excitation of a self-trapped exciton in vitreous silica	Martinelli / Monaco	MID SASE2
2769	hRIXS UAC: Spin dynamics in photoexcited antiferromagnetic Mott insulators from high-resolution RIXS	Schlappa	SCS SASE3
2776	hRIXS UAC: High-Resolution Vibrationally-Resolved RIXS of Liquids	van Kuiken	SCS SASE3
2783	Photo-induced low-spin to high-spin transition in bulk spin-crossover complexes at room temperature: Hot electron-induced vs. heat- and strain-induced dynamics	Wende	SCS SASE3
2800	Ultrafast Magnetization Dynamics of Nanoscale Domains in Ferrimagnetic DyCo-Alloy Thin Films with Perpendicular Magnetic Anisotropy	Philippi-Kobs / Grübel	SCS SASE3
2866	hRIXS UAC: Time-Resolved Optical Pump – 2p3d RIXS Probe Experiments with hRIXS at SCS	van Kuiken	SCS SASE3
2884	Charge density wave domain fluctuations in a free-standing YBa <sub>2</sub> Cu <sub>3</sub> O <sub>6+x</sub> nanosheet explored by Anomalous Small-angle X-ray Photon Correlation Spectroscopy	Shen / Turner	SCS SASE3
3216 (ex 2497)	Nonequilibrium Electron-Hole Dynamics of Highly Photoexcited Material	Cho	SCS SASE3
2734	Holographic Single Particle Imaging	Ayyer	SPB/SFX SASE1
2765	Signal generation in Bacteriophytochromes studied by Serial Femtosecond Crystallography (SFX)	Westenhoff	SPB/SFX SASE1
2770	How does photolyase repair DNA?	Lane	SPB/SFX SASE1
2805	Time-resolved structural studies of optogenetic tools at European XFEL	Gordeliy	SPB/SFX SASE1
2812	FEL Diffractive Imaging of Synaptic Vesicles	Salditt	SPB/SFX SASE1
2816	Movie sequences of electron transfer and water splitting in Photosynthesis with the pulse train structure of the XFEL	Fromme	SPB/SFX SASE1
2819	Structural Biology of Bacterial Insecticides	Oberthür / Berry	SPB/SFX SASE1
2826	Structural Studies and Ligand Binding Mechanisms of the Adenosine A <sub>2A</sub> Receptor – A Newly Validated Drug Target for Immuno-oncology	Tian Geng	SPB/SFX SASE1
2829	Signal transduction of blue-light photoreceptors	Schubert	SPB/SFX SASE1
2847	Coherent diffractive imaging of microtubules using XFEL radiation	Neutze	SPB/SFX SASE1

2748	X-ray transient absorption from the weak- to strong-field regime	Young	SQS SASE3
2873	Charge transfer and photofragmentation in hydrogen bonded pyrrole-water clusters upon site-specific x-ray photoionization	Trippel	SQS SASE3
2862	Site-sensitive investigation of nuclear and electronic dynamics in molecules	Rivas / Oberli	SQS SASE3
2828	Non-Linear Light–Matter Interaction Correlated to the SASE Time–Energy Structure	Helml / Ilchen	SQS SASE3
2857	Two-color coherent x-ray diffraction imaging of heterogeneous nanoplasmas	Mudrich / Ovcharenko	SQS SASE3
2880	Ultrafast electronic decay dynamics of Fe complexes by resonant double core hole spectroscopy	Martins	SQS SASE3
2905	Sequential core ionization – core excitation in the SF6 molecule: dynamical aspects	Simon / Piancastelli	SQS SASE3