

## Scheduled Experiments – Cycle 201901

July 2019 – November 2019

| No.  | Title  | Main Proposer / Principal Investigator        | Instrument   |
|------|--|---|--------------|
| 2392 | Utilizing femtosecond X-ray tools for investigation of noble-metal free dyads with Fell photocatalysts   | M. Bauer                                      | FXE<br>SASE1 |
| 2383 | Intra- and intermolecular electronic and structural dynamics of solvated molecules by a combination of fs-XES and anisotropic fs-XRS                                   | C. Bacellar Cases da Silveira / M. Chergui    | FXE<br>SASE1 |
| 2359 | Investigating the onset of photoinduced polaron formation in lead-free halide nanoparticles using femtosecond X-ray scattering and spectroscopy                        | S. Canton                                     | FXE<br>SASE1 |
| 2269 | Ultrafast probing of the atomic structure of supercooled liquid metals   | R. Sobierajski / J. Antonowicz                | FXE<br>SASE1 |
| 2210 | Revealing a potential fragile to strong transition in deeply supercooled water using anisotropic scattering under Optical Kerr Effect condition                        | K. H. Kim / A. Nilsson                        | FXE<br>SASE1 |
| 2189 | Single-shot visualization of the multi-centre ultrafast response in photoexcited spinel Co <sub>3</sub> O <sub>4</sub> by femtosecond non-resonant XES and diffraction | G. F. Mancini / M. Chergui                    | FXE<br>SASE1 |
| 2353 | A Spectroscopic Study of Solid-density HED Plasmas Isochorically Heated by Nano-focused FEL X-rays   | H. J. Lee                                     | HED<br>SASE2 |
| 2293 | Bright and Dark Field X-ray Microscopy   | L. E. Dresselhaus-Cooper                      | HED<br>SASE2 |
| 2292 | Femtosecond Hard X-ray Studies at High Static Pressure   | R. S. McWilliams                              | HED<br>SASE2 |
| 2151 | Advanced Hard X-ray Focus Characterization   | M. Makita                                     | HED<br>SASE2 |
| 2544 | Cavitation Dynamics Studied by Time-Resolved High-Resolution X-Ray Holography (re-scheduled from 2207, Cycle 201802)   | J. Hagemann / T. Salditt                      | MID<br>SASE2 |
| 2543 | Non-linear Compton scattering at extreme intensities (re-scheduled from 2200, Cycle 201802)  | S. Bajt                                       | MID<br>SASE2 |
| 2542 | Probing the local structural features in supercooled atomic liquids during the liquid-to-solid phase transition (re-scheduled from 2272, Cycle 201802)                 | R. Grisenti                                   | MID<br>SASE2 |
| 2355 | Domain Fluctuations in LSCO thin films   | I. Robinson                                   | MID<br>SASE2 |
| 2336 | Exploring the microscopic dynamics of deeply undercooled metallic liquids and glasses.   | F. Caporaletti / G. Monaco                    | MID<br>SASE2 |
| 2330 | Inter- and intra-pulse train wavefront characterization using ptychography   | B. J. Daurer / P. Thibault                    | MID<br>SASE2 |
| 2263 | Observation of a traveling soliton lattice in sliding charge density wave systems  | D. Le Bolloc'h / A. Sinchenko                 | MID<br>SASE2 |
| 2384 | Separating spin and orbital magnetic dynamics via x-ray absorption lines   | N. Thielemann-Kühn / C. Schuessler-Langeheine | SCS<br>SASE3 |

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| 2313 | Ultrafast dynamics of helicity-dependent all-optical magnetization switching in ultrathin cobalt films   | I. I. Pronin                           | SCS<br>SASE3     |
| 2280 | Exploring the non-equilibrium pathways for energy and angular momentum transfer in FePt nanoparticles  | H. A. Dürr                             | SCS<br>SASE3     |
| 2225 | Exploring Ultrafast Transient Ferromagnetism in a Laser-driven First-order Phase Transition  | R. E. Carley                           | SCS<br>SASE3     |
| 2212 | Open Community Proposal: Time resolved magnetic Small Angle X-ray Scattering to follow the multi-pulse helicity dependent switching in CoTb thin films | E. Jal                                 | SCS<br>SASE3     |
| 2161 | Open community proposal on femtosecond time-resolved soft x-ray absorption spectroscopy of magnetically ordered transition metals and oxides           | A. Eschenlohr                          | SCS<br>SASE3     |
| 2480 | Structural dynamics and mechanism of chloride transport. (re-scheduled from 2172, Cycle 201802)  | P. Nogly                               | SPB/SFX<br>SASE1 |
| 2326 | Movie sequences of the water splitting process in Photosystem II by serial fs crystallography with the XFEL pulse-train structure                      | P. Fromme                              | SPB/SFX<br>SASE1 |
| 2316 | Nanofocus Flash X-ray Imaging of Ribosomes   | F. Maia                                | SPB/SFX<br>SASE1 |
| 2304 | Femtosecond fluctuation powder diffraction of protein crystallisation  | A. V. Martin                           | SPB/SFX<br>SASE1 |
| 2376 | Insights into the photo-activation mechanism of OCP by time-resolved serial femtosecond crystallography.   | J.-P. Colletier                        | SPB/SFX<br>SASE1 |
| 2545 | Nanocrystal data collection, possible limitations by XFEL-induced shockwaves (re-scheduled from 2156, Cycle 201802)                                    | I. Schlichting                         | SPB/SFX<br>SASE1 |
| 2388 | Charge transfer and photofragmentation in hydrogen bonded pyrrole-water clusters upon site-specific x-ray photoionization                              | S. Trippel                             | SQS<br>SASE3     |
| 2370 | Element specific diffractive imaging of bimetallic nanoparticles   | B. v. Issendorff                       | SQS<br>SASE3     |
| 2322 | Single-Particle Diffractive Imaging of 3D DNA-Origami Molecular Scaffolds  | L. X. Paulraj /<br>H. Chapman          | SQS<br>SASE3     |
| 2318 | Simultaneous Absorption of Two-Photons: Nonlinear Response of Molecules  | N. Berrah                              | SQS<br>SASE3     |
| 2310 | Wavelength-dependence of soft X-ray photoionization  | R. Boll /<br>S.-K. Son                 | SQS<br>SASE3     |
| 2301 | Neutral metastable atom detection as a means to study nonlinear X-ray photon processes   | U. Eichmann                            | SQS<br>SASE3     |
| 2146 | Flash X-ray Imaging of Single Proteins   | F. Maia                                | SQS<br>SASE3     |