

The aim of the workshop is to discuss experimental capabilities and science opportunities offered by the Materials Imaging and Dynamics (MID) station expected to begin operation in 2017. The emphasis will be on day one capabilities and early experiments. MID will feature setups for (coherent) scattering and imaging in the energy range 5-25 keV. A synchronized optical laser is available for pump-probe experiments and optional x-ray optics (e.g. monochromator, focusing lenses, mirrors, X-ray split-delay line) allow tailoring the beam parameters. The sample environment provides opportunities for SAXS and WAXS in combination with liquid sample injection, fast sample exchange or scanning, pulsed high magnetic fields, as well as a furnace/cryostat for high and low-temperature measurements. An area detector will be available that can acquire images at 4.5 MHz speed taking full advantage of the XFEL machine parameters.

Program

Monday, 26 January 2015

13:30	Welcome and status of MID instrument	A. Madsen	<i>European XFEL</i>
14:00	MID beam parameters and optics	T. Roth	<i>European XFEL</i>
14:30	MID sample environment and optical laser	J. Hallmann	<i>European XFEL</i>
15:00	Discussion		
15:30-16:00	Coffee Break		
16:00	XFEL science with nano-beams	C. Schroer	<i>DESY and Univ. Hamburg</i>
16:40	Correlations in space and time	C. Gutt	<i>Univ. Siegen</i>

Tuesday, 27 January 2015

9:00	Ultrafast XPCS	G. Grübel	<i>DESY</i>
9:40	Ultrafast pump-probe CXDI	I. Robinson	<i>University College London</i>
10:20-10:40	Coffee Break		
10:40	Ultrafast melting of colloidal crystals observed in pump-probe experiment at LCLS	I. Vartaniants	<i>DESY</i>
11:20	Ideas for microfluidics experiments at MID	S. Köster	<i>Univ. Göttingen</i>
12:00	AGIPD: A 2d pixel detector for the European XFEL	H. Graafsma	<i>DESY</i>
12:40-14:00	Lunch Break		
14:00	New opportunities for 0.1-meV-resolution IXS at high-repetition-rate	Y. Shvyd'ko	<i>Argonne National Laboratory</i>
14:40	IXS for studies of collective dynamics: from glass forming systems to proteins	A. Sokolov	<i>Univ. Tennessee</i>
15:20	Dynamics of complex systems studied by XFEL IXS	G. Monaco	<i>Trento University</i>
16:00-16:20	Coffee Break		
16:20	Ultrafast scattering experiments in materials science	P. Gaal	<i>HZ Berlin & Univ. Hamburg</i>
17:00	Femtosecond protein dynamics using split-delay line crystallography	J. J. van Thor	<i>Imperial College London</i>
17:40	Discussion and Close Out		

Registration at http://www.xfel.eu/events/users_meetings/2015_users_meeting/