

Workshop on Short Pulse Science at the EBS Source

ESRF Auditorium

PROGRAMME

Monday 28 October 2019

08:30 - 09:00	Registration in the ESRF Central Building entrance hall	
09:00 - 09:30	Welcome, Introduction	J. Susini, ESRF Director of Research
Session 1	BEAMLIN TALKS – Chair: M. WULFF	
09:30 - 09:50	Time-resolved structural dynamics at the ESRF	M. Levantino (ESRF Grenoble)
09:50 - 10:10	Single pulse XAS measurements at ID24 and the HPLF project	R. Torchio (ESRF Grenoble)
10:10 - 10:30	Serial crystallography at the ESRF Extremely Brilliant Source: the ID29 upgrade project	D. De Sanctis (ESRF Grenoble)
10:30 - 10:45	Coffee break	
Session 2	STRUCTURAL BIOLOGY – Chair: M. LEVANTINO	
10:45 - 11:10	Time resolved X-ray scattering studies at ID09 of structural changes in integral membrane proteins.	R. Neutze (University of Gothenburg)
11:10 - 11:35	Use of short X-ray pulses to probe the structural dynamics of the orange carotenoid protein (OCP)	J.-P. Colletier (IBS Grenoble)
11:35 - 12:00	Tracking Ca ²⁺ ATPase intermediates in real-time by X-ray solution scattering	M. Andersson (Umeå University)
12:00 - 12:25	Kinetic pathways in self-assembled soft matter systems: applications of synchrotron TR-SAXS	R. Lund (Oslo University)
12:30 - 14:00	Lunch at the EPN campus restaurant	
Session 3	CHEMISTRY / XES – Chair: P. GLATZEL	
14:00 - 14:25	Towards improving light-activated functional molecules	G. Vanko (Hungarian Academy of Sciences)
14:25 - 14:50	Real-time mapping of photo-induced bond formation and accompanying relaxation dynamics	K. Møller (DTU Copenhagen)
14:50 - 15:15	Spin sensitivity in the X-ray emission of iron compounds	M. Retegan (ESRF Grenoble)
15:15 - 15:40	Ultrafast electron dynamics in real world light activated complexes studied by x-ray spectroscopy	J. Uhlig (Lund University)
15:40 - 16:00	Coffee break	
Session 4	MATERIAL SCIENCE / X-RAY DIFFRACTION AND ABSORPTION – Chair: R. TORCHIO	
16:00 - 16:25	Photoactive materials studied by X-ray techniques	M. Cammarata (CNRS Rennes)
16:25 - 16:50	Studies of structural dynamics in solids using time resolved X-ray diffraction	X. Wang (Lund University)
16:50 - 17:15	Gathering chemistry and physic on the magic world of perovskite solar cells: opportunities of new studies.	F. Sauvage (CNRS Amiens)
17:15 - 17:40	Characterization of the shock-induced phase transitions in Bi and Sn using time resolved synchrotron X-ray diffraction	A. Sollier (CEA Paris)
17:40 - 18:05	Investigation of structural transformations in high pressure shocked silicates from in-situ x-ray diffraction	A. Ravasio (Ecole Polytechnique Palaiseau)
19:00 - 22:00	Workshop dinner at the EPN campus restaurant	

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Session 5	SHORT PULSE IMAGING – Chair: M. WULFF	
09:00 - 09:20	Beamline ID19: a versatile station for time-resolved hard X-ray microimaging	A. Rack (ESRF Grenoble)
09:20 - 09:45	Brittle crack propagation in silicon wafer by diffraction tomography	F. Rieutord (CEA Grenoble)
09:45 - 10:10	Analysing the arc formation and burn-back phenomena in fast industrial fuses at high di/dt	J.M. Chaix (SIMAP Grenoble)
10:10 - 10:35	Multi frame synchrotron radiography of pulsed power driven high energy density physics experiments	S. Bland (Imperial College)
10:35 - 10:50	Coffee break	
Session 6	SOFT MATTER / SAXS – Chair: A. RACK	
10:50 – 11:10	New opportunities for time-resolved SAXS with the EBS	T. Narayanan (ESRF Grenoble)
11:10 - 11:35	Beans, viruses... and synchrotron radiation. Probing the self-assembly dynamics of icosahedral virus by time-resolved small-angle X-ray scattering	G. Tresset (Université Paris-Sud)
11:40 - 14:00	Lunch at the EPN campus restaurant	
Session 7	X-RAY DIFFRACTION AND SCATTERING – Chair: M. CAMMARATA	
14:00 - 14:20	Temperature-jump induced changes in protein crystals studied with pink beam serial crystallography	A. Meents (DESY Hamburg)
14:20 - 14:45	Comprehensive analysis of hierarchical dynamics in ablation by scattering, imaging and spectroscopy	A. Plech (Karlsruhe Institute of Technology)
14:45 - 15:10	Combining femtosecond hard X-ray scattering and spectroscopy to study photochemical dynamics in solution: instrumentation and recent results	D. Khakhulin (European XFEL)
15:10 - 15:35	Strain-induced dynamics monitored by time-resolved x-ray diffraction	P. Gaal (Hamburg University)
15:35 - 16:10	Round table discussion on short pulse experiments at ESRF-EBS	
16:10	End of the workshop	