

Towards filming macromolecular movies at the ESRF-EBS



Wednesday, 7th February 2024 - Microsymposium UDM1 Venue: IBS seminar room

0.20.0.45	B. Martin.		
8:30-8:45	Registration		
8:50	Welcome	Michael Krisch ESRF Director of Research	
Session I: Chair: Daniele de Sanctis			
09:00	Keynote: XFEL- and synchrotron-based serial crystallography studies of the membrane-bound proton pump cytochrome c oxidase	Gisela Brändén University of Gothenburg	
9:30	MicroMAX – a beamline with time-resolved macromolecular crystallography capabilities at the MAX IV Laboratory	Oskar Aurelius Lund University	
9:50	The TR-icOS setup at the ESRF: time-resolved microsecond UV-Vis absorption spectroscopy on protein crystals	Sylvain Engilberge ESRF Grenoble	
10:10	Rationale and experimental setup for the use of lower energies in serial micro-crystallography experiments at XAIRA beamline	Judith Juanhuix ALBA synchrotron light Facility	
10:30	Deciphering protein motion at the new ID29 EBS- ESRF	Julien Orlans ESRF Grenoble	
10:50	Coffee break		
Session II: Chair: Adriana Miele			
11:10	Keynote: Envisioning a shared future for serial diffraction from X-rays and electrons	Gerhard Hofer Stockholm University	
11:40	The XFEL Hub at Diamond: Dynamic Structural Biology on Earth	Allen Orville Diamond Light Source	
12:00	Time lapse crystallography using the ultrasonic acoustic levitation diffractometer and its prospects at 4th generation synchrotrons	Takashi Tomizaki Paul Scherrer Institute	
12:20 - 13:30	12:20 - 13:30 Lunch		
	Session III: Chair: Montserrat Soler-Lo	ppez	
13:30	Keynote: Towards deciphering the structure and dynamics of biological and non-biological molecules using time-resolved serial crystallography at ID29	Jose Martin Garcia IQF-BC CSIC Madrid	
14:00	Decrypting a cryptochrome using time-resolved crystallography and time-resolved spectroscopy; from nanoseconds to seconds.	Nicolas Caramello ESRF Grenoble	
14:20	Serial macromolecular crystallography: developments for high throughput measurements over large parameter spaces.	Dominik Oberthur CFEL - DESY Hamburg	

14:40	Millisecond Cryo-Trapping Through Simplified Time-Resolved Crystallographic Technique	Sihyun Sung EMBL Hamburg
15:00	A redox switch allows binding of Fe(II) and Fe(III) ions in the cyanobacterial iron binding protein FutA from Prochlorococcus	Ivo Tews University of Southampton
15:20	Coffee break	
15:40	Keynote: Time-resolved serial crystallography using photo caged compounds	Henrike Müller-Werkmeister University of Potsdam
16:10	Ultrafast Dynamics of Biomolecules from X-ray Crystallography Data	Ahmad Hosseinizadeh University of Wisconsin Milwaukee
16:30	Serial Time-Resolved Crystallography at ESRF ID 29: a User Perspective	Tek Malla University of Wisconsin Milwaukee
16:50	Keynote: A New Approach to Mix-and-Inject Serial Synchrotron Crystallography Resolves the Function of DJ-1	Kara Zielinski Cornell University
17:20	Concluding remark and general discussion	
18:00	End of the Symposium	