5th Ringberg Meeting on Structural Biology with FELs

Sunday, February 4th, 2018		
> 15:00	*Coffee, cake, Garden room*	
Chair: Makina Yabashi		
16:20	Ilme Schlichting	Welcome
16:30	Kensuke Tono	Recent progress in structural biology at SACLA
17:00	Yoshinori Nishino	Controlled Environment Nano-Imaging Free From Radiation Damage by X-ray Laser Diffraction
17:30	Uwe Müller	New experimental possibilities at the first ultimate storage ring MAX IV
18:00	Jörg Standfuss	Time-resolved serial crystallography at synchrotrons and X-ray lasers
18:30	*Dinner*	
20:00	Ki Bong Lee	Update on PAL-XFEL facility
Monday, February 5th, 2018		
	Chair: Martin Weik	
9:00	Loes Kroon-Batenburg	Diffuse scattering is present in all X-ray diffraction data of protein crystals. How to measure it, how to understand it, how to use it
9:30	Thomas J Lane	What can we learn from protein crystal diffuse scatter?
10:00	Peter Zwart	Structure determination from experimental multi-particle fluctuation scattering data
10:30	*Coffee break*	
	Chair: Oliver Bunk	
11:00	Tatiana Latychevskaia	Coherent lensless low-energy electron imaging
11:30	Marcus Gallagher-Jones	Studying the Nanoscale Anatomy of Macromolecular Crystals with Nano Beam Electron Diffraction
12:00	Andrew Morgan	Ab-Initio Phasing of the Diffraction of Crystals with Translational Disorder

12:30 12:40	*Group photo (depending on weather)* *Lunch*	
Chair: Karol Nass		
14:00	Helen Ginn	The slip-and-slide algorithm: a refinement protocol for detector geometry
14:30	Harry Quiney	Electronic damage in XFEL imaging
15:00	Daniel Ratner	Time domain ghost imaging with SASE FELs
15:30	*Coffee break*	
Chair: R. Bruce Doak		
16:00	Diana Monteiro	Mixing geometries and timescales
16:30	Denis Rousseau	Crystal Structure of a Ferryl Intermediate in Cytochrome c Oxidase revealed by Time-resolved Mix and Inject Serial Femtosecond Crystallography
17:00	Gisela Brändén	XFEL radiation to study bioenergetic systems
17:30	Nicholas Pearce	Detection and validation of weak crystallographic features: the importance of control experiments and strict modelling protocols
18:00	*Tour of the castle*	
18:45	*Dinner*	
Chair: Thomas White		
20:15	Kartik Ayyer	Incoherent Diffractive Imaging
20:45	Gerard Bricogne	"If your experiment needs statistics, you ought to have done a better experiment": the dialectics of diffraction data collection, processing and exploitation in crystal structure determination

Tuesday, February 6th, 2018

Chair: Adrian Mancuso		
9:00	Britta Weinhausen	The SPB/SFX instrument at the European XFEL
9:30	Henrik Lemke	First Impressions from SwissFEL
10:00	Henry van den Bedem	Structural dynamics of isocyanide hydratase by conventional, serial, and computational crystallography

10:30	*Coffee break*

Chair: Andreas Menzel		
11:00	Kevin Dalton	Probing Protein Dynamics With Electric Field Stimulated X-ray Crystallography
11:30	Michael Mara	Quantifying metalloprotein entatic contributions to bond stability by ultrafast X-ray spectroscopy
12:00	Yoshitsugu Shiro	Characterization of Coordination and Electronic Structures of Intermediates Appeared in NO Reduction by NO Reductases
12:30	*Lunch*	
14:00	*Discussion rounds / Hiking*	
18:30	*Conference Dinner*	
20:30	Radoslav Enchev	Promises and Challenges of Structural Studies by time-resolved Electron Cryomicroscopy
21:00	Thomas Barends - Chair	*Discussion session: Data –related topics*
21:00	Darren Sherrell - Chair	*Discussion session: Sample-delivery related topics*
<u>Wednesday, February 7th, 2018</u>		
Chair: Shin-ichi Adachi		
9:00	Tim van Driel	Transient anisotropic scattering from liquid samples
9:30	Marco Cammarata	Femtosecond dynamics of Myoglobin active-site
10:00	Michel Sliwa	Dynamics of photo-switchable fluorescent proteins: synergy between SFX and ultrafast optical spectroscopy?
10:30	Tim Salditt	Synaptic vesicles and proteoliposomes: FEL opportunities to understand structure, docking and fusion
11:15	End of meeting, lunch packages if desired	