## 13<sup>th</sup> Ringberg Workshop on Science with FELs

	Sunday, February 11 <sup>th</sup> , 2024			
> 15:00	Coffee, cake, Garden room			
	L	Chair: Makina Yabashi		
16:20	Ilme Schlichting	Welcome		
16:30	Axel Brachmann	LCLS Accelerator and FEL Update		
17:00	Zhentang Zhao	Status of the SHINE Project		
17:30	Svitozar Serkez	Demonstration of sub-femtosecond pulses at the European XFEL		
18:00	Diling Zhou	Crystal optics for next generation x-ray sources		
18:30		Dinner		
		Monday, February 12 <sup>th</sup> , 2024  Chair: Alice Green		
9:00	Taran Driver	Tracking Attosecond Electron Dynamics at the LCLS		
9:30	Carlo Callegari	Nonlinear experiments with trains of phase-locked FEL harmonics		
10:00	Christian Ott	Recent results on omega-2omega coherent control with SASE FEL pulses		
10:30	Coffee break			
	Chair: Camila Bacellar			
11:00	Thomas Barends	Influence of Illumination Conditions on Myoglobin in TR-SFX-experiments		
11:30	Raphael Jay	Orbital interactions in bond activation: Insights from ultrafast X-ray spectroscopy		
12:00	Roseanne Sension	Visualizing Ultrafast Excited State Structural and Electronic Dynamics with XFELs		
12:30 12:40		Group photo (depending on weather) Lunch		

		Chair: Adi Natan
14:00	Jumpei Yamada	Ultra-intense hard X-ray FEL with sub-10 nm focusing
14:30	Ralf Röhlsberger	New regimes of nuclear resonance excitation with X-ray laser radiation
15:00	Erik Nibbering	Ultrafast proton transfer in acid-base chemistry
15:30	Coffee break	
		Chair: Marco Cammarata
16:00	Matthias Ihme	Probing non-equilibrium dynamical response of supercritical water using ultrafast X-ray probe/X-ray pump measurement
16:30	Minna Patanen	Single particle imaging of sea spray aerosol particles
17:00	Tim van Driel	Impulsive Nuclear Raman and X-ray Scattering - Ultrafast structure and dynamics in liquids
17:30	Shuai Wei	Femtosecond atomic-scale X-ray photon-correlation spectroscopy enables direct probing of relaxation dynamics in fragil liquid
18:00	Tour of the castle	
18:45	Dinner	
		Chairs: Markus Gühr, Philippe Wernet
	-	Discussion Session: Observing rare events in chemistry

Chair: Malte Oppermann				
9:00	David Ayuso	Ultrafast and highly enantiosensitive imaging and control of molecular chirality		
9:30	Markus Scholz	Emergence of chirality in molecular assemblies on surfaces		
10:00	Caterina Vozzi	Time-resolved chiral XPS for the investigation of ultrafast chiral dynamics		
10:30		Coffee break		

		Chair: Chris Milne
11:00	Erik Malm	Single-shot multi-wavelength coherent diffractive imaging with a free electron laser
11:30	Alexander Rack	Studying dynamic processes at ESRF beamline ID19 with ultra-high speed radiography: from kHz to MHz
12:00	Kartik Ayyer	Serial diffractive imaging to visualize ultrafast dynamics in nanoscale systems
12:30	Lunch	
14:00	Discussion rounds / Hiking	
18:30	Conference Dinner	
		Chair: Mengning Liang
20:30	Henry Chapman	Convergent-beam serial crystallography - a path to attosecond imaging
i		Wednesday, February 14th, 2024

Chair: Rebecca Boll			
9:00	Sae Hwan Chun	4D Visualization of a Nonthermal Coherent Magnon in a Laser Heated Lattice by an X-ray Free Electron Laser	
9:30	Mariano Trigo	Nonlinear couplings among collective modes in quantum materials	
10:00	Alfred Zong	Exploring coupled degrees of freedom in quantum materials through ultrafast dynamics	
10:30	David Reis	Imaging strongly-driven attosecond electron motion in solids	

11:15 End of meeting, lunch packages if desired