The 4th Banff Meeting on Structural Dynamics

Ultrafast Dynamics with X-Rays and Electrons

February 15–18, 2015

The Banff Centre, Banff, Alberta, Canada

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Conference Chair Heinrich Schwoerer (U Stellenbsoch)
CoChair Henry Chapman (CFEL Hamburg)

Program Committee

Nigel Browning (PNNL)
Eric Collet (Rennes)
Phil Coppens (Buffalo)
Jiro Matsuo (Kyoto)
Dwayne Miller (CFEL/Toronto)
Bryan Reed (LLNL)
Robert Scholten (Melbourne)
Bradley Siwick (McGill)

Invited Speakers

Michael Bauer (U Kiel)
Thomas Baumert (U Kassel)
Paul Beaud (PSI Villigen)
Uwe Bovensiepen (U Duisburg-Essen)
Hermann Dürr (Stanford)
Thomas Elsässer (MBI Berlin)
Ralph Ernstorfer (FHI Berlin)
Jerome Faure (Paris Tech)
Peter Hommelhoff (U Erlangen)
Henry Kapteyn (JILA)
Mark Kasevich (Stanford)
Hendrik Lemke (Stanford)
Jom Luiten (U Eindhoven)
Jabez McClelland (NIST)
Harry Quiney (U Melbourne)
Ilme Schlichting (MPI MF Heidelberg)
Klaus Sokolowski-Tinten
(U Duisburg-Essen)
Renske van der Veen
(MPI BPC Göttingen)
Vittal Yachandra (LBNL)

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Scientific Program

Time	Sunday, Feb. 15	Monday, Feb. 16	Tuesday, Feb. 17	Wednesday, Feb.18
8:30		Henry Kapteyn Application of HHG tabletop coherent EUV and soft x-ray sources	Peter Weber Ultrafast structural dynamics: a real time view of chemistry	Jabez McClelland Bright focused ion beams from laser cooled atoms
8:45			M. Minitti fs x-ray scattering of ring-opening in 1,3-cyclohexadiene	
9		Sebastian Grübel Structural dynamics induced by THz pulses	Ilme Schlichting Protein structure and dynamics using XFELs	Robert Scholten Diffraction with cold electrons by transmission and reflection
9:15		Sergio Carbajo THz driven relativistic electron source		
9:30		Peter Hommelhoff Demonstration of almost fully coherent laser-triggered electr. beams from needle tips	Harry Quiney Quantumdynamics of the interaction between biomolecules and intense femtosecond x-ray pulses	Stuart Hayes A molecular movie of the PIPT in a complex correlated electron-molecule-lattice system
9:45				
10		Sascha Schäfer UTEM with nanoscopic electron sources	Paul Beaud an order parameter concept to describe ultrafast phase transition dynamics	Coffee break Max Bell Foyer
10:15		Coffee break Max Bell Foyer		
10:30	Registration Foyer Max-Bell Auditorium		Coffee break Max Bell Foyer	Mark Kasevich RF streaking of ultrafast laser-triggered electrons from field emitters
10:45		Jerome Faure Development of a fs electron source from a laser wakefield accelerator		
11			Uwe Bovensiepen Non-equilibrium electronic structure and ultrafast dynamics of solids materials	Lutz Waldecker Photoinduced phase transition in Ge2Se2Te5
11:15		Charles Varin few 100 keV e pulses from direct laser acceleration in gas		Henrik Lemke Coherent wavepacket structure in molecular spin transition system observed by ultrafast x-ray abs. spectrosc.
11:30		Stephanie Manz REGAE: first experiments and next steps	Klaus Sokolowski-Tinten Structural dynamics in fs laser excited phase change materials studied by time resolved x-ray scattering	
11:45		Jie Yang Ultrafast diffractive imaging of CS2 mol with electron pulses		Thomas Elsässer Charge dynamics in polar crystals mapped by femtosecond x-ray powder diffraction
12		Lunch Vistas Dining Room Sally Borden Building	Galen O'Neill x-ray abs spectr of ferrioxalate with microcalorimeter detect.	
12:15			Nicolas Erasmus Formation dynamics of CDWs in TaS2	Final Words
12:30	Lunch Vistas Dining Room Sally Borden Building		Dongfang Zhang Comm to incomm CDW phase transition in In2Se3	
12:45			Lunch Vistas Dining Room	Lunch Vistas Dining Room Sally Borden Building

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13:45	welcome (H&H)	Free Afternoon	Ralph Ernstorfer fs electron probes for the investigation of structural dynamics and ultrafast currents in nanomaterials	
14	Hermann Dürr Imaging the ultrafast spin lattice motion during all optical magnetic switching			
14:15			Thomas Baumert Spatial and temp resolution studies on a highly compact UED and lattice dynamics in few-layer graphene	
14:30	Michael Bauer Ultrafast Modulation of the chemical potential in $BaFe_2As_2$ by coherent photons			
14:45			Tim Frigge photo indiced Peierls like PT of the In/Si(111) system	
15	Bradley Siwick Photoinduced phase transition in VO_2 revealed by ultrafast electron diffraction and broadband spectroscopy		Coffee break Max Bell Foyer	
15:15				
15:30	Coffee break Max Bell Foyer		Renske van der Veen Single nanoparticle thermal switching and core-loss spectroscopy in UEM	
15:45				
16	Faruk Krecinic Laser induced electron diffraction in aligned molecules		Bryan Reed Pulsed electron imaging and spectroscopy: DTEM, UTEM and Movie Mode	
16:15	Nigel Browning Direct imaging of fast dynamic processes in liquids			
16:30			Poster Jam Session Max Bell Auditorium	
16:45	Jom Luiten Cool electrons for ultrafast electron imaging			
17				
17:15	Vittal Yachandra Taking snapshots of photo-synthetic water oxidation			
17:30				
17:45	Marius Schmidt Time resolved serial femtosecond crystallography at an x-ray laser			
18			Poster Session room 252 Max Bell Building finger food and drinks	