

Ultrashort Pulse Laser-Matter Interactions Program Review 2014

Dr. Riq Parra | May 28-30, 2014 | Arlington, VA

Agenda Day 1 (Wednesday, May 28th)

Time	Topic	Speaker
7:30-8:00	Registration	
8:00-8:30	Welcome Remarks	
8:30-9:00	Measurement and Control of Attosecond Pulses	Paul Corkum National Research Council
9:00-9:30	Fundamental Dynamics and Mechanisms for Ultrafast Laser-Materials Interaction: Controlling Laser Driven Nanostructure	Steve Yalisove University of Michigan
9:30-10:00	BREAK	
10:00-10:30	Benchmarking Attosecond Physics with Atomic Hydrogen	David Kielpinski Griffith University
10:30-11:00	Ultrafast Imaging Of Atomic And Molecular Orbitals With Electron Pulses	Martin Centurion U of Nebraska, Lincoln
11:00-11:45	Phase-Sensitive Control Of Molecular Dissociation Through Attosecond Pump/Strong-Field	Jeff Moses MIT
11:45-1:15	LUNCH	
1:15-1:45	Extreme Nonlinear Optics of High Intensity Laser Pulse Filamentation in Gases	Howard Milchberg U of Maryland
1:45-2:15	Extreme Light Diagnostics	Mel Roquemore Air Force Research Lab
2:15-3:00	Understanding the Femtosecond Laser-solid Interaction near and beyond the Material Damage Threshold	Enam Chowdhury Ohio State University
3:00-3:20	Nonlinear Optical Imaging of Fluid Flow	Marcos Dantus Michigan State University
MEETING ADJOURNED FOR THE DAY		

Agenda Day 2 (Thursday, May 29, 2014)

Time	Topic	Speaker
8:00-8:30	Registration	
8:30-9:00	Tailoring of Dispersion and Nonlinearity of Slotted Waveguides and Ring Resonators to Achieve Stable, Efficient, Octave-Spanning Optical Frequency Combs	Alan Willner U of Southern California
9:00-9:30	Stable Modelocking of Microresonator Frequency Combs via Spatio-temporal Field Mapping and Control	Scott Diddams NIST
9:30-10:00	Microresonator-based Optical Frequency Combs: A Time Domain Perspective	Andrew Weiner Purdue University

10:00-10:30	BREAK	
10:30-11:00	Mid-IR Microresonator-Based Optical Frequency Combs	Andrey Matsko OEwaves
11:00-11:30	Silicon-Chip-Based Optical Frequency Combs	Alex Gaeta / Michal Lipson Cornell University
11:30-12:00	Exploring Solid-state High-harmonic Generation as a Potential Attosecond Source for Materials Characterization	David Reis Stanford
12:00-1:30	LUNCH	
1:30-2:00	XUV Frequency Comb Development for Precision Spectroscopy and Ultrafast Science	Jason Jones University of Arizona
2:00-2:30	Frequency Comb Spectroscopy – From IR To XUV	Jun Ye JILA
2:30-3:00	Precision Characterization of High-Harmonic Spectroscopy and Strong-Field Attosecond Physics	Thomas Allison Stony Brook University
3:00-3:30	Direct Spectroscopy In Hollow Optical With Fiber-Based Optical Frequency Combs	Kristan Corwin Kansas State University
MEETING ADJOURNED FOR THE DAY		

Agenda Day 3 (Friday, May 30, 2014)		
Time	Topic	Speaker
8:00-8:30	Registration	
8:30-9:00	Control Of Femtosecond Laser Filamentation By Spatial And Temporal Pulse Shaping	Pavel Polynkin University of Arizona
9:00-9:30	Unified First-principle Analysis of Ultraintense Laser-matter Interactions: Theory, Computation and Experiments	Pavel Polynkin University of Arizona
9:30-10:00	Electron Dynamics During High-Power, Short-Pulsed Laser Interactions with Solids and Interfaces	Patrick Hopkins University of Virginia
10:00-10:30	BREAK	
10:30-11:00	Pump-Probe Study of fs-Laser Hyperdoping and Texturing of Silicon for Advanced Non-equilibrium Materials	Eric Mazur Harvard
11:00-11:30	Towards A Table-Top Laser Driven XUV/X-Ray Source	Kramer Akli Ohio State University
11:30-12:00	An Integrated Experimental and Theoretical Exploration of Radiation Reaction, Light-sail Acceleration, and Approaches to the Schwinger Intensity Limit	Kramer Akli Ohio State University
12:00-1:30	LUNCH	
1:30-2:00	Experimental Study of Electron Dynamics in Strongly Relativistic Laser Fields	Todd Ditmire U of Texas, Austin
2:00-2:30	State-of-the-Art High-Flux Mono-Energetic Ion Sources Driven by Ultra-Intense Laser Pulses	Farhat Beg UC San Diego
2:30-3:15	Relativistic Optics - Interactions of Electrons with Laser Light at Highly Relativistic Intensities	Don Umstadter U of Nebraska, Lincoln
MEETING ADJOURNED		