

Ultrashort Pulse Laser-Matter Interactions Program Review

Dr. Riq Parra | December 18 - 20, 2012 | Potomac, MD

William F. Bolger Center
9600 Newbridge Drive
Potomac, MD 20854

Agenda Day 1 – December 18, 2012

Time	Title	Speaker
7:30 – 8:30	Registration	
8:30 – 9:00	Welcome and Opening Remarks	Riq Parra, AFOSR
9:00 – 9:30	Laser Induced Molecular Imaging	Paul Corkum, National Research Council of Canada
9:30 – 10:00	Phase-sensitive Control of Molecular Dissociation through Attosecond Pump/Strong-field	Jeff Moses, MIT
10:00 – 10:30	BREAK	
10:30 – 11:00	Benchmarking Attosecond Physics with Atomic Hydrogen	David Kielpinski, Griffith University
11:00 – 11:30	Ultrafast Imaging of Atomic and Molecular Orbitals with Electron Pulses	Martin Centurion, University of Nebraska, Lincoln
11:30 – 12:00	Frequency Comb Spectroscopy – from IR to XUV	Jun Ye, JILA
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	Direct Spectroscopy in Hollow Optical with Fiber-based Optical Frequency Combs	Kristan Corwin / Brian Washburn, Kansas State University
2:30 – 3:00	Enhancing Laser-matter Interactions at High Intensities - from Molecules to Metals	Chunlei Guo, University of Rochester
3:00 – 3:30	BREAK	
3:30 – 4:00	Pulse Shaping Based Ultra-broad Bandwidth Multidimensional Spectroscopic Methods	Marcos Dantus, Michigan State University
4:00 – 4:30	Ultrafast Laser-based Spectroscopic Techniques for Investigating the Physics and Chemistry of Reacting Flows	Jim Gord, Air Force Research Laboratory
4:30	MEETING ADJOURNED FOR THE DAY	

Agenda Day 2 – December 19, 2012

Time	Title	Speaker
7:30 – 8:30	Registration	
8:30 – 9:00	Understanding the Femtosecond Laser-solid Interaction near and beyond the Material Damage Threshold	Enam Chowdhury, Ohio State University
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	Unified First-principle Analysis of Ultraintense Laser-matter Interactions: Theory, Computation and Experiments	Pavel Polynkin, University of Arizona
10:00 – 10:30	BREAK	
10:30 – 11:00	Extreme light diagnostics	Mel Roquemore, Air Force Research Laboratory
11:00 – 11:30	Propagation and Interactions of Ultrahigh Power Light: Relativistic Nonlinear Optics	Don Umstadter, University of Nebraska, Lincoln
11:30 – 12:00	Guided Wave by Laser Induced Filamentation	Pat Roach, Air Force Research Laboratory
12:00 – 1:30	LUNCH	
1:30 – 2:00	Ultrafast Beam Filamentation - Spatio-temporal Characterization and Control	Chip Durfee, Colorado School of Mines
2:00 – 2:30	Control of Femtosecond Laser Filamentation by Spatial and Temporal Pulse Shaping	Pavel Polynkin, University of Arizona
2:30 – 3:00	Extreme Nonlinear Optics of High Intensity Laser Pulse Filamentation in Gases	Howard Milchberg, University of Maryland
3:00 – 3:30	BREAK	
3:30 – 4:00	Interaction of Clusters with Intense, Few-cycle, Long Wavelength Fields	Lou DiMauro, Ohio State University
4:00 – 4:30	Towards a Table-top Laser Driven XUV/x-ray Source	Kramer Akli, Ohio State University
4:30	MEETING ADJOURNED FOR THE DAY	

Agenda Day 3 – December 20, 2012

Time	Title	Speaker
7:30 – 8:30	Registration	
8:30 – 9:00	Stable Modelocking of Microresonator Frequency Combs via Spatio-temporal Field Mapping and Control	Scott Diddams , NIST, Boulder
9:00 – 9:30	Mid-IR Microresonator-based Optical Frequency Combs	Andrey Matsko , OEwaves
9:30 – 10:00	Optical Frequency Comb Generation in Silicon-carbide Microdisk Resonators	Qiang Lin , University of Rochester
10:00 – 10:30	BREAK	
10:30 – 11:00	Microresonator-based Optical Frequency Combs: A Time Domain Perspective	Andrew Weiner , Purdue University
11:00 – 11:30	Tailoring of Dispersion and Nonlinearity of Slotted Waveguides and Ring Resonators to Achieve Stable, Efficient, Octave-spanning Optical Frequency Combs	Alan Willner , University of Southern California
11:30 – 12:00	Silicon-chip-Based Optical Frequency Combs	Alex Gaeta/Michal Lipson Cornell University
12:00	MEETING ADJOURNED	

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