



Joint Technology Office University of New Mexico (JTO UNM)
801 University Blvd. SE
Albuquerque, NM 87106

AGENDA - Day 1 – Tuesday, September 18, 2012

Time	Title of Project	Speaker
0700-0800	Registration	
AFOSR MURI 2nd Year Review		
0800-0815	Welcome/Introduction	Dr. Arje Nachman Air Force Office of Scientific Research
0815-0900	MURI Project Overview: Goals, Team, Challenges	Dr. Jerry Moloney University of Arizona
0900-0925	Theory and Computational Aspects of Competing Nonlinearities in fs Laser Pulse Propagation Leading To Filamentation	Dr. Pat Roach Air Force Research Laboratory
0930-0955	Applications of Laser-induced Plasma Filaments	Dr. Richard Albanese Air Force Research Laboratory
1000-1025	Light-Matter Interactions and Coherent Quantum Effects in Nonlinear Optics: Re-Thinking the Notion of Susceptibility at Ultrafast Scale.	Dr. Miroslav Kolesik University of Arizona
1030-1045	BREAK	
1045-1110	From Ionized Atoms to a Collective Plasma State: A Microscopic Approach	Dr. Stephan Koch Philipps University, Marburg
1115-1140	Filamentation Control through Laser Beam Shaping	Dr. Pavel Polynkin University of Arizona
1145-1210	Dressed Optical Filament Dynamics	Dr. Demetrios Christodoulides CREOL-College of Optics and Photonics
1210-1315	LUNCH	
1315-1340	Numerical Simulations of Strong-Field Processes and its Application to Laser Pulse Filamentation	Dr. Andreas Jaron-Becker University of Colorado
1345-1410	Probing the Propagation Dynamics in a Laser Filament	Dr. Robert Levis Temple University
1415-1440	Bright Coherent keV Beams Driven by Self-Confined Mid-Infrared Femtosecond Lasers	Dr. Margaret Murnane University of Colorado
1445-1510	Spatial Control of Filamentation Dynamics	Dr. Alex Gaeta Cornell University
1515-1545	BREAK	
1545-1610	High-intensity Propagation of Ultrashort Pulses Beyond the Critical Power Limit using Simultaneous Spatial and Temporal Focusing.	Dr. Charles Durfee Colorado School of Mines
1615-1640	Weakly nonlinear analysis of Bessel beams	Dr. Shankar Venkataramani University of Arizona
645–1715	Open Discussion and Planning	
1645	MEETING ADJOURNED FOR THE DAY	

AGENDA - Day 2 – Wednesday, September 19, 2012

Time	Title of Project	Speaker
0730-0840	Registration	
0840-0845	Introduction	Dr. Arje Nachman Air Force Office of Scientific Research
0845-0930	Overview of Arizona Research in Nonlinear Optics and Semiconductor Lasers: "New High-Power CW, Mode-Locked Pulsed and Single Frequency Results for VECSELs"	Dr. Jerome Moloney University of Arizona
0930-1000	BREAK	
1000-1030	High-Energy, Ultra-Short Pulse, Mode-Locked Lasers: Engineering Design and New Theoretical Constructs	Dr. Nathan Kutz University of Washington
1030-1100	Graphene Micro-ribbons for Terahertz Plasmonics with a Tunable Energy Gap	Dr. Danhong Huang AFRL
1100-1130	Optical Pulse Evolution and Dynamics in Honeycomb Photonic Lattices	Dr. Mark Ablowitz University of Colorado
1130-1230	LUNCH	
1230-1300	Linear and Nonlinear Accelerating Beams	Dr. Zhigang Chen San Francisco State University
1300-1330	Nonlinear Optics in PT-symmetric Lattices and Rogue Waves	Dr. Jianke Yang University of Vermont
1330-1400	Modulation of Long-Cavity Semiconductor Lasers [poster entitled "Generation & Modulation of a Millimeter-Wave Subcarrier on an Optical Frequency Generated via Optical Injection" presented by Dr. Grupen on behalf of Dr. Usechak]	Dr. Nicholas Usechak AFRL
1400-1430	BREAK	
1430-1500	Full Wave, Full Band Fermi Charge Transport for High Speed Device Simulation	Dr. Matthew Grupen AFRL
1500-1530	Time Dynamics of Stimulated Brillouin Scattering in Fiber Amplifiers with Frequency-Modulated Signals	Dr. Iyad Dajani AFRL
1530-1600	Reconstruction Imaging through Seeded Instability	Dr. Jason Fleischer Princeton
1600-1630	Designing Novel Materials with Parity-Time Symmetries: Examples from Integrated Photonics and Electronics	Dr. Tsampikos Kottos Wesleyan University
1630-1700	Phase locking and dynamics of nonlinear RHPFA arrays	Dr. Erik Bochove AFRL
1700	MEETING ADJOURNED	