

# 2017 Annual Review of Theoretical NLO Contractors

Dr. Arje Nachman | March 8, 2017 | Arlington, VA

Basic Research Innovation and Collaboration Center (BRICC)  
4075 Wilson Blvd., Suite 350 | Liberty Room  
Arlington, VA 22203

## Agenda

Time	Title	Speaker
0730-0755	Registration	
0755-0800	Welcome/Introduction	<b>Arje Nachman</b> AFOSR
0800-0830	New Paradigm for Multi-TW, Multiple Joule 10 Micron Ultrashort Pulse Self-trapping over Kilometer Ranges	<b>Jerry Moloney</b> University of Arizona
0830-0900	Efficient Computation of Nonequilibrium Ultra-short Pulse Generation in Semiconductor Microlasers	<b>Stephan Koch</b> Philipps University, Marburg
0900-0930	Nonlinear Molecular Plasmonics: from Collective Exciton Resonances to Nonlinear Spectroscopy	<b>Maxim Sukharev</b> Arizona State University
0930-1000	Unstable Electronic States and Nonlinear Optical Response of Atoms and Molecules	<b>Miroslav Kolesik</b> University of Arizona
1000-1030	<b>BREAK</b>	
1030-1100	Generalizing Fermi Kinetics Transport for Higher Power and Higher Frequency Applications	<b>Matt Grupen</b> AFRL/RV
1100-1130	Superscattering of Pseudospin-1 wave in Photonic Lattice	<b>Ying-Cheng Lai</b> Arizona State University
1130-1200	Quantum Plasmonics through Retarded Coulomb Coupling to Graphene Electrons	<b>Danhong Huang</b> AFRL/RV
1200-1330	<b>LUNCH</b>	
1330-1400	Nonlinear Optics with PT Symmetry	<b>Jianke Yang</b> University of Vermont
1400-1430	Edge Mode Dynamics in Rapidly and Adiabatically Varying Photonic Graphene	<b>Mark Ablowitz</b> University of Colorado
1430-1500	Nonlinear Optical Response of Massless Dirac Fermions in Graphene and Topological Insulators	<b>Alexey Belyanin</b> Texas A&M University
1500-1530	<b>BREAK</b>	
1530-1600	Sideband locking and parity-time symmetry breaking in semiconductor lasers	<b>Nicholas Usechak</b> AFRL/RV
1600-1630	A Few New thoughts on Phase Retrieval	<b>Jason Fleischer</b> Princeton University
1630-1700	Transformation of original direct -gap parabolic bands into transient indirect-gap bands by ultrashort high-intensity laser pulse	<b>Vitaly Gruzdev</b> University of Missouri
1700	<b>MEETING ADJOURN</b>	