

2019 Review of EM Portfolio Subarea Theoretical Nonlinear Optics

Dr. Arje Nachman | March 6, 2018 | Arlington, VA

Basic Research Innovation and Collaboration Center (BRICC)
4100 North Fairfax Drive, Suite 450 I Research Room
Arlington, VA 22203

Agenda | March 6, 2019

Time	Title	Speaker
0800-0830	Welcome/Introduction	Arje Nachman AFOSR
0830-0900	Physics of Ultrashort LWIR Pulse Propagation in Air – from Self-trapped Light Bullets to Multiple Filaments	Jerry Moloney University of Arizona
0900-0930	Microscopic Modeling of Semiconductor Systems and their Laser Applications	Stephan Koch University of Arizona
0930-1000	Non-Hermitian and Open Systems: Fundamentals and Applications	Miroslav Kolesik University of Arizona
1000-1030	BREAK	
1030-1100	Simulating Field Enhanced Barrier Trap Ionization Provides New Theory of GaN HEMT 'Kink' Effect	Matt Grupen AFRL/RV
1100-1130	Relativistic Quantum Scattering that Defies Chaos/Q-spoiling and Klein Tunneling	Ying-Cheng Lai Arizona State University
1130-1200	Progress of Nonlinear Optics with PT Symmetry	Jianke Yang University of Vermont
1200-1330	LUNCH	
1330-1400	Topological Insulators in Lieb/Kagome Photonic Lattices	Mark Ablowitz University of Colorado
1400-1430	Quantum-kinetic Theory for Pulsed Laser-induced Transition & Transport of Electrons in Quantum Wires	Danhong Huang AFRL/RV
1500-1530	Modeling Ultra-short Laser Filament Physics for RF Generation	Michael White AFRL/RD
1530-1600	Harmonics Generation at the Plasmonic Interfaces: Exciton-plasmon Materials Go Nonlinear	Maxim Sukharev Arizona State University
1600	MEETING ADJOURN	