

# 2025 Annual Theoretical NLO Review

Dr. Arje Nachman | March 5, 2025 | Arlington, VA -hybrid

Basic Research Innovation Collaboration Center (BRICC)  
4100 N Fairfax Drive, Suite 450 | Arlington, VA 22203

## Agenda | March 5, 2025

Time	Topic	Speaker
0800-0830	Zoom Login / In-person check-in	
0830-0900	Nonlinear States and Switching in Magneto-optical Lattices	Justin Cole UCCS
0900-0930	Ultrafast Strong Field Driven 2D and 3D Semiconductors – Higher Order Many-body Correlations	Jerry Moloney University of Arizona
0930-1000	Nonlinear effects in Light Propagation in Periodic Structures with Spectral Singularities.	Ilya Vitebskiy AFRL/RV
1000-1030	BREAK	
1030-1100	Computational Analysis of Bonded Material Diodes and THz Transistor Plasma Oscillations	Matthew Grupen AFRL/RV
1100-1130	Penrose Super-Radiance and Angular-Momentum Bandgaps in a Synthetically Rotating Ring	Andrea Alu CUNY
1130-1200	Metasurfaces Design for Nonlinear Nano-Optics	Maxim Sukharev Arizona State University
1200-1230	Families of Discrete Breathers on 2D Lattices	Andrew Hofstrand NYIT
1230-1330	LUNCH	
1330-1400	Giant Nonlinear Optical Response in Two-dimensional Semiconductors	Michael Leuenberger University of Central Florida
1400-1430	New Dynamics for Unstable Self-induced Plasma Field of Electrons Driven by a Transient Electric-field in Quantum Wire	Danhong Huang AFRL/RV
1430-1500	Giant Surface Plasmon Polaritons	Travis Garrett AFRL/RD
1500-1530	Strong Light-matter Interactions in Bulk and Structured Materials	Miroslav Kolesik University of Arizona
1530-1600	Steady State Thermal Blooming with Convection	Benjamin Akers AFIT
1600	MEETING ADJOURN	