

 <h1>2025 Electromagnetics Portfolio Review</h1> <p>Dr. Arje Nachman   January 7-9, 2025   Arlington, VA - hybrid</p>		
<p>Basic Research Innovation Center (BRICC) 4100 N Fairfax Drive   Suite 450   Arlington, VA 22203</p>		
<p>Agenda Day 1 Tuesday, January 7, 2025</p>		
Time	Title	Speaker
0800-0830	Zoom Login	
0830-0900	A Novel Approach to Imaging Moving Targets in Complex Stationary Scenes	<b>Liliana Borcea</b> University of Michigan
0900-0930	Stereo Tomography of Optical Turbulence	<b>Jason Fleischer</b> Princeton
0930-1000	Evaluation of Resonances via Adaptivity and Rational Approximation, and Other Frequency- and Time-Domain Scattering Problems	<b>Oscar Bruno</b> Caltech
1000-1030	<b>BREAK</b>	
1030-1100	A Case Study of Magnetic Navigation	<b>Ying-Cheng Lai</b> Arizona State
1100-1130	Random Magnets as Microwave Absorbers: Dynamical Scaling and Coherent Anisotropy	<b>Eugene Chudnovsky</b> CUNY Lehman College
1130-1230	<b>LUNCH</b>	
1230-1300	Time Metamaterials	<b>Andrea Alu</b> CUNY
1300-1330	Aspects of Off-Axis Laser Radiation Detection: Investigating Effects of Atmospheric Turbulence	<b>Elizabeth Bleszynski</b> Monopole Research
1330-1400	Wave propagation in 1D and 2D periodic arrays with spectral singularities	<b>Ilya Vitebskiy</b> AFRL/RV
1400-1430	<b>BREAK</b>	
1430-1500	Entropy Stable Conservative Flux Form Neural Networks	<b>Anne Gelb</b> Dartmouth College
1500-1530	Bounds and Optimal Performance in Linear Electromagnetic Systems	<b>Owen Miller</b> Yale
1530-1600	Nonlocal Metasurfaces for Control of Light Beyond the Generalized Snell's Law	<b>Adam Overvig</b> Stevens Institute
1600	<b>ADJOURN FOR THE DAY</b>	



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**Agenda Day 2**  
**Wednesday, January 8, 2025**

Time	Title	Speaker
0800-0830	Zoom Login	
0830-0900	Deterministic Singularities in Partially Coherent Vortex Beams	Greg Gbur UNCC
0900-0930	Site-Specific Imaging and Spectral Classification of Subsurface Targets	Arnold Kim UC/Merced
0930-1000	Comparative Analysis of Performance for Optimization-Based Transionospheric SAR Autofocus	Semyon Tsynkov NCSU
1000-1030	<b>BREAK</b>	
1030-1100	Super-Resolution SAR Ground Moving Target Imaging	Birsen Yazici RPI
1100-1130	Further Advances of the Lippmann-Schwinger-Lanczos Algorithm for SAR Imaging in Presence of Multiple Scattering and Losses	Vladimir Druskin WPI
1130-1230	<b>LUNCH</b>	
1230-1300	Fast Solvers and Inverse Design Algorithms for Nanophotonic and Radio-Frequency Devices	Constantine Sideris USC
1300-1330	Fundamental Analyses and Discovery of Topological EM Materials	Daniel Sievenpiper UCSD
1330-1400	Synthetic-Aperture Passive Source Localization	Margaret Cheney Colorado State University
1400-1430	<b>BREAK</b>	
1430-1500	Subspace Version of Wilks'-Lambda Test and Application to Space-Time Adaptive Processing	Ram Raghavan AFRL/RV
1500-1530	Computing Topological Invariants for 3D Photonic Crystals	Barry Bradlyn University of Illinois
1530	<b>ADJOURN FOR THE DAY</b>	



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**Agenda Day 3**  
**Thursday, January 9, 2025**

Time	Title	Speaker
<b>0800-0830</b>	<b>Registration</b>	
<b>0830-0900</b>	Efficient Implementation of Discrete Linear Unitary Operations with Photonic Circuits	<b>Mohammad-Ali Miri</b> Queens College/CUNY
<b>0900-0930</b>	Nonlocal and Time-Varying Metasurfaces	<b>Francesco Monticone</b> Cornell
<b>0930-1000</b>	Discrete Huygens Representations Using Electric and Magnetic Dipoles with Application to 2D Grating Problems	<b>Thorkild Hansen</b> S4, Inc
<b>1000-1030</b>	<b>BREAK</b>	
<b>1030-1100</b>	Macroscopic Emitters on Deployable Structures: A Group Theoretic Approach	<b>Richard James</b> University of Minnesota
<b>1100-1130</b>	Perfectly-Matched Metamaterials	<b>Anthony Grbic</b> University of Michigan
<b>1130-1230</b>	<b>LUNCH</b>	
<b>1230-1300</b>	Free Standing Bilayer Metasurfaces: A New Approach to Structured Light	<b>Frederico Capasso</b> Harvard
<b>1300-1330</b>	Effective Linear Regimes in Plasmonic 3-Wave Mixing	<b>Alessandro Salandrino</b> University of Kansas
<b>1330-1400</b>	Shallow Recurrent Decoder (SHRED) for Sensing, Wavefield Reconstruction, Model Reduction and Physics Discovery	<b>Nathan Kutz</b> University of Washington
<b>1400</b>	<b>MEETING ADJOURNED</b>	