



Basic Research Innovation Collaboration Center (BRICC)
4100 N Fairfax Drive, Suite 450 | Arlington, VA 22203
Agenda Day 1 | Tuesday, January 10, 2023

Time	Title	Speaker
0800-0830	BRICC Elevators Open at 8:00, In-person Check-in / Zoomgov Login	
0830-0900	Beyond Chu's lower bound with dispersion engineering and time modulation	Andrea Alu CUNY
0900-0930	Advances in Bayesian Inference Techniques for SAR Image Recovery	Anne Gelb Dartmouth College
0930-1000	Waveform Inversion with a Data Driven Estimate of the Internal Wave	Liliana Borcea University of Michigan
1000-1030	BREAK	
1030-1100	Electromagnetic Force and Momentum in Classical Macroscopic Dipolar Media	Arthur Yaghjian S4, Inc
1100-1130	Broadband Absorption of Microwaves by Localized Spin Excitations in Random Magnets	Eugene Chudnovsky CUNY Lehman College
1130-1300	LUNCH	
1300-1330	A laser-radiation detection method based on intensity interferometry	Elizabeth Bleszynski Monopole Research
1330-1400	Symmetry aspects of EPD formation in periodic arrays of optical waveguides	Ilya Vitebskiy AFRL/RV
1400-1430	Recurrent Shallow Decoders for Sensing	Nathan Kutz University of Washington
1430-1500	BREAK	
1500-1530	Fast Simulation and Inverse Design of Nanophotonic and Radio-Frequency Devices	Constantine Sideris USC
1530-1600	Sampling via Sampling Set Generating Functions	Stephen Casey American University
1600-1630	Detecting weak physical signals from noise: A machine-learning approach with applications in magnetic navigation	Ying-Cheng Lai Arizona State Univ
1630	ADJOURN FOR THE DAY	



**Basic Research Innovation Collaboration Center (BRICC)
 4100 N Fairfax Drive, Suite 450 | Arlington, VA 22203
 Agenda Day 2 | Wednesday, January 11, 2023**

Time	Title	Speaker
0800-0830	BRICC Elevators Open at 8:00, In-person Check-in / Zoomgov Login	
0830-0900	Coherence, Turbulence, and OAM	Greg Gbur UNCC
0900-0930	Synthetic aperture subsurface imaging	Arnold Kim UC/Merced
0930-1000	Transionospheric Autofocus for Synthetic Aperture Radar	Semyon Tsynkov NCSU
1000-1030	BREAK	
1030-1100	Interferometric Passive Radar Imaging using Deep Plug-and-Play Priors	Birsen Yazici RPI
1100-1130	Screened WKB (WKB across caustics) and other direct and iterative scattering solvers	Oscar Bruno CalTech
1130-1300	LUNCH	
1300-1330	Random space-time-coupled light beams	Lt Col Milo Hyde AFIT
1330-1400	Source Imaging and the Shower Curtain Effect	Knut Solna UC/Irvine
1400-1430	BREAK	
1430-1500	Vectorial EM Propagation Governed by the 3D Stochastic Maxwell Vector Wave Equation: Reconstruction of EM Fields using Sensors Data, Correlations and Physics Based Machine Learning	Alex Mahalov Arizona State Univ
1500-1530	Distributed SAR without the Start-Stop Approximation	Margaret Cheney Colorado State University
1530-1600	Reduced Order Inversion of Monostatic Data in a Multi-Scattering Environment	Vladimir Druskin WPI
1600-1630	Maximal Invariant Static for Subspace Signal Detection in unknown Gaussian interference given multiple observations	R. S. Raghavan AFRL/RV
1630	ADJOURN FOR THE DAY	



2023 Electromagnetics Annual Portfolio Review

Dr. Arje Nachman | January 10-12, 2023 | Arlington, VA - hybrid

**Basic Research Innovation Collaboration Center (BRICC)
4100 N Fairfax Drive, Suite 450 | Arlington, VA 22203
Agenda Day 3 | Thursday, January 12, 2023**

Time	Title	Speaker
0800-0830	BRICC Elevators Open at 8:00, In-person Check-in / Zoomgov Login	
0830-0900	Spectral Sets of Frequencies Important to Inverse Scattering	Fioralba Cakoni Rutgers Univ
0900-0930	Nonlocal Metasurfaces and Spaceplates	Francesco Monticone Cornell
0930-1000	Identifying Low-Dimensional Structure for Functional Compression	Erin Tripp AFRL/RI
1000-1030	BREAK	
1030-1100	Comparison of statistics between wave propagation models through random media	Austin McDaniel AFRL/RD
1100-1130	Inverse Born Again	John Schotland Yale
1130-1300	LUNCH	
1300-1330	2D and 3D Chiral Interfaces, and Artificial Intelligence for Metasurface Design	Daniel Sievenpiper UCSD
1330-1400	Empirical wavelet systems	Jerome Gilles San Diego State University
1400-1430	BREAK	
1430-1500	All electromagnetic scatterers are matrix-valued oscillators	Owen Miller Yale
1500-1530	Topologically protected four-dimensional optical singularities	Frederico Capasso Harvard
1530	MEETING ADJOURNED	