



2022 Annual EM Portfolio Review

Dr. Arje Nachman | January 4-6, 2022 | Virtual

Agenda Day 1 Tuesday, January 4, 2022		
Time	Title	Speaker
0800-0830	Zoom Login	
0830-0900	Time-switched Metamaterials	Andrea Alu CUNY
0900-0930	Sparse Bayesian Learning for Image Rreconstruction with Uncertainty Quantification	Anne Gelb Dartmouth College
0930-1000	Enhanced Resolution SAR Imaging in Random Media using Two-point Coherent Interferometry	Liliana Borcea University of Michigan
1000-1030	BREAK	
1030-1100	The Solution to a Relativistic Electron in a Counterpropagating Laser Beam	Arthur Yaghjian S4, Inc
1100-1130	General Three-wave Mixing Theory of Planar Parametric Optical Limiters	Alessandro Salandrino University of Kansas
1130-1300	LUNCH	
1300-1330	Nonlinear and Thermal Effects in the Absorption of Microwaves by Random Magnets	Eugene Chudnovsky CUNY Lehman College
1330-1400	An Off-Axis Laser-Radiation Detection Based on Intensity Interferometry	Elizabeth Bleszynski Monopole Research
1400-1430	Slow Light in Periodic Waveguides with Exceptional Point of Degeneracy	Ilya Vitebskiy AFRL/RV
1430-1500	EM Propagation with the 3D Maxwell Vector Wave Equation: Robust Reconstruction of Wave Dynamics from Multiple Sensors	Alex Mahalov Arizona State University
1500-1530	Data-driven Reduced Order Models for Active-array Imaging in Presence of Multiple Scattering and Losses	Vladimir Druskin WPI
1530-1600	Simulation and Inverse Design of Nanophotonic Devices using Fast Boundary Integral Methods	Constantine Sideris USC
1630	ADJOURN FOR THE DAY	



Agenda Day 2
Wednesday, January 5, 2022

Time	Title	Speaker
0800-0830	Zoom Login	
0830-0900	Analytic Propagation of Partially Coherent Beams in Turbulence	Greg Gbur UNCC
0900-0930	Distributed Detection Based on Maximal Invariant Static	Ram Raghavan AFRL/RV
0930-1000	Polarimetric Radar Interferometry in the Presence of Differential Faraday Rotation	Semyon Tsynkov NCSU
1000-1030	BREAK	
1030-1100	Robust Phaseless Imaging via Reverse Kullback-Liebler Divergence	Birsen Yazici RPI
1100-1130	Massively Parallel Scattering Solver and Other Efforts	Oscar Bruno CalTech
1130-1300	LUNCH	
1300-1330	Estimating and Tracking Signal Subspaces in Multistatic Radar Systems	Doug Cochran Arizona State University
1330-1400	Propagation and Imaging of Complex Sources	Knut Solna UC/Irvine
1400-1430	BREAK	
1430-1500	Fast Continuous Convolutional Taylor Transform for Rendering from Sensors	Nathan Kutz University of Washington
1500-1530	Tuning to Target Resonances	Margaret Cheney Colorado State University
1530-1600	Analytic Bezout Equations and Sampling in Rectangular and Radial Coordinates	Stephen Casey American University
1630	ADJOURN FOR THE DAY	



**Agenda Day 3
Thursday, January 6, 2022**

Time	Title	Speaker
0800-0830	Registration	
0830-0900	Imaging of Local Perturbations in Periodic Layers: Some Remarks on Non-scattering Waves	Fioralba Cakoni Rutgers Univ
0900-0930	Emerging Directions for Time-Modulated Metamaterials	Francesco Monticone Cornell
0930-1000	Quantitative Signal Subspace Imaging	Chrysoula Tsogka UCal/Merced
1000-1030	BREAK	
1030-1100	Sparse Regularization with the Log-Sum Function	Erin Tripp AFRL/RI
1100-1130	Accelerating the Innovation Cycle of Nanophotonic Systems Design	Jonathan Fan Stanford University
1130-1300	LUNCH	
1300-1330	Achieving Micron-scale Resolution of Optical Wave Propagation through Compressible, Turbulent Flows	Austin McDaniel AFRL/RD
1330-1400	Analysis of the Inverse Born Series	John Schotland Yale
1400-1430	Topological Metasurfaces	Daniel Sievenpiper UCSD
1430-1500	Assessment of Deep Learning Algorithms for Turbulence Mitigation	Jerome Gilles San Diego State University
1530	MEETING ADJOURNED	