



2017 Annual Review of EM Contractors

Dr. Arje Nachman | January 10-12, 2017 | Arlington, VA

Basic Research Innovation Collaboration Center (BRICC)
4075 Wilson Blvd, Suite 350 | Liberty Room
Arlington, VA 22203

Agenda Day 1 Tuesday, January 10, 2017

Time	Title	Speaker
0730-0755	Registration	
0755-0800	Welcome, etc	Arje Nachman AFOSR/RTB
0800-0830	Imaging and Communication through Sparse Discrete Scatterer Media: Enhancement of Early-time Diffusion by Beam Collimation	Elizabeth Bleszynski Monopole Research
0830-0900	Eigenvalues in Inverse Scattering Theory	David Colton University of Delaware
0900-0930	Compression Methods for Signal Fragmentation	Russel Caflisch UCLA
0930-1000	Stochastic Effects and Time-Filtered Leapfrog Integration of Maxwell Equations using Unstaggered Temporal Grids	Alex Mahalov Arizona State University
1000-1030	BREAK	
1030-1100	Boundary Conditions for Multipolar Media Determined from Maxwell's Equations and Constitutive Relations	Arthur Yaghjian S4, Inc
1100-1130	Coherence Effects in Scattering	Taco Visser University of Rochester
1130-1300	LUNCH	
1300-1330	Conformal Array Realizations of the Near and far Fields of a Complex Point Source	Thorkild Hansen S4, Inc
1330-1400	Extension of Metasurface Theory for Anisotropic and Multilayered Cases	Bae-Ian Wu AFRL/RV
1400-1430	BREAK	
1430-1500	Unidirectional Lasing in Nonreciprocal Active Structures	Ilya Vitebskiy AFRL/RV
1500-1530	Properties and Production of Twisted Light	Richard James University of Minnesota
1530-1600	Metasurface-Based Antenna Beamformers	Anthony Grbic University of Michigan
1600-1630		
1630-1700		
1700	ADJOURN FOR THE DAY	

Agenda Day 2
Wednesday, January 11, 2017

Time	Title	Speaker
0730-0755	Registration	
0755-0800	Welcome, etc	Arje Nachman AFOSR/RTB
0800-0830	Topological Electromagnetics for Robust One-way Signal Transport in Metasurfaces	Andrea Alu University of Texas/Austin
0830-0900	Arbitrary Patterning Techniques for Anisotropic Surfaces, and Line Waves	Daniel Sievenpiper UCSD
0900-0930	Mitigating Uncertainty in Imaging	Liliana Borcea University of Michigan
0930-1000	Passive SAR Imaging of Satellites	George Papanicolaou Stanford University
1000-1030	BREAK	
1030-1100	The Windowed Green Function Method, Spectral Time-domain Solvers and Applications	Oscar Bruno Caltech
1100-1130	Computational EM at the High Performance Computing Modernization Office	John D'Angelo AFRL/ry
1130-1300	LUNCH	
1300-1330	SAR Imaging for Amplitude Modulated Signals	Semyon Tsynkov NCSU
1330-1400	Multi-static Passive Polarimetric Radar Imaging	Birsen Yazici RPI
1400-1430	BREAK	
1430-1500	High Order ℓ_1 Regularization Techniques for Reconstructing Images from Fourier Data	Anne Gelb Dartmouth College
1500-1530	Speckle Intensity Correlation Imaging Through a Strongly Scattering Medium	Knut Solna UC/Irvine
1530-1600	On the Dissipative Properties of Electromagnetic Fields in Stratified Magnetic-dielectric Media	Aaron Welters Florida Inst Tech
1600-1630		
1630-1700		
1700	ADJOURN FOR THE DAY	

Agenda Day 3
Thursday, January 12, 2017

Time	Title	Speaker
0730-0755	Registration	
0755-0800	Welcome, etc	Arje Nachman AFOSR/RTB
0800-0830	Sparse Sensor Placement for Classification, Reconstruction, and Future-state Prediction of Multi-scale Spatio-temporal Dynamics	Nathan Kutz University of Washington
0830-0900	Tradeoffs in Passive Geolocation and Navigation	Laurent Demanet MIT
0900-0930	On the Detection of Electromagnetic Characteristics of Targets in the Radar Environment	Vladimir Rokhlin Yale
0930-1000	Tractable Radar Waveform Design Under Practical Constraints	Vishal Monga Penn State University
1000-1030	BREAK	
1030-1100	Exact Bayesian Detection in Multistatic Passive Radar	Douglas Cochran Arizona State University
1100-1130	Decomposition of Oscillatory vs Non-oscillatory Movement, Detection of Moving Targets in Atmospheric Turbulence	Jerome Gilles San Diego State University
1130-1300	LUNCH	
1300-1330	Provable Non-convex Subspace Recovery in the Presence of Outliers and Streaming Data	Yuejie Chi Ohio State University
1330-1400	Deep Representations	Stefano Soatto UCLA
1400-1430	BREAK	
1430-1500	Matrix Optimal Transport for Problems in Signal Processing	Allen Tannenbaum SUNY/Stony Brook
1500-1530	Passive Radar Detection Using a Noisy Reference Channel	Sandeep Gogineni AFRL/Ry
1530-1600		
1600-1630		
1630-1700		
1700	MEETING ADJOURNED	