



Annual EM and SSN Contractors Review 2016

Dr. Arje Nachman | January 5-7, 2016 | Arlington, VA

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

Agenda Day 1 Tuesday, January 5, 2016

Time	Title	Speaker
0730-0755	Registration	
0755-0800	Welcome, etc	Arje Nachman AFOSR/RTB
0800-0830	Formation and Evolution of Pulsed Beams in Turbulent and Discrete-scatterer Media	Elizabeth Bleszynski Monopole Research
0830-0900	Active Field Manipulation: Results, Challenges and Perspectives	Daniel Onofrei University of Houston
0900-0930	The Role of Stekloff Eigenvalues in Inverse Scattering Theory	David Colton University of Delaware
0930-1000	A Variational Approach to Signal Fragmentation	Russel Caflisch UCLA
1000-1030	BREAK	
1030-1100	Power and Energy Relations for Macroscopic Dipolar Continua Derived from the Microscopic Maxwell Equations	Arthur Yaghjian S4, Inc
1100-1130	Optical Limiters Based on Nonlinear Localized Modes	Ilya Vitebskiy AFRL/RV
1130-1300	LUNCH	
1300-1330	Array Realization of an Electromagnetic Complex-source Beam	Thorkild Hansen S4, Inc
1330-1400	Control of Guided and Radiated Electromagnetic Waves Using Metasurfaces	Anthony Grbic University of Michigan
1400-1430	BREAK	
1430-1500	Interaction of Radiation and Objective Structures for Radar, Photonics, and Structure Determination	Richard James University of Minnesota
1500-1530	Non-Hermitian designs for giant non-reciprocity and antenna protection in the Microwave domain	Tsampikos Kottos Wesleyan University
1530	ADJOURN FOR THE DAY	

Agenda Day 2
Wednesday, January 6, 2016

Time	Title	Speaker
0730-0755	Registration	
0755-0800	Welcome, etc	Arje Nachman AFOSR/RTB
0800-0830	Enhanced and Unusual Nonlinear Interactions in Metamaterials	Andrea Alu University of Texas
0830-0900	Patterning and Validation of Arbitrary Anisotropic Impedance Surface Profiles	Dan Sievenpiper UCSD
0900-0930	Phase Shifts and Scintillations in Propagation through Random Ionospheric Media: Effects of Inhomogeneities and Time Delay	Alex Mahalov Arizona State University
0930-1000	Polarization Effects for EM Wave Propagation Random Media	Liliana Borcea University of Michigan
1000-1030	BREAK	
1030-1100	Novel High-order Methods for Computational Electromagnetism	Oscar Bruno Caltech
1100-1130	Toward a Theory of Broadband Absorption Suppression in Magnetic Composites	Aaron Welters Florida Institute of Technology
1130-1300	LUNCH	
1300-1330	The Doppler Effect for SAR	Semyon Tsynkov NCSU
1330-1400	Wave Focusing Through Complex Media	Knut Solna University of California @ Irvine
1400-1430	BREAK	
1430-1500	Passive Source Geolocation	Margaret Cheney Colorado State University
1500-1530	Imaging Without a Synthetic Aperture	Richard Albanese ADED, LLC
1530-1600	Partially Coherent Vortex Beams and Other Optical Vortex Phenomena	Greg Gbur UNCC
1600	ADJOURN FOR THE DAY	

Agenda Day 3
Thursday, January 7, 2016

Time	Title	Speaker
0730-0755	Registration	
0755-0800	Welcome, etc	Arje Nachman AFOSR/RTB
0800-0830	Super-resolution Geolocation	Laurent Demanet MIT
0830-0900	Passive SAR Imaging of Satellites	George Papanicolaou Stanford
0900-0930	Weighted Wavelet Burst Accumulation for Turbulence Mitigation	Jerome Gilles San Diego State University
0930-1000	Sparse Measurements and Optimal Sensor Placement for Classification and State Estimation of Complex Systems	Nathan Kutz University of Washington
1000-1030	BREAK	
1030-1100	Gauge-invariant Registration in Networks	Douglas Cochran Arizona State University
1100-1130	Two High-resolution Algorithms to Extract Important Information from Fourier Data	Ann Gelb Arizona State University
1130-1300	LUNCH	
1300-1330	Geometry of Optimal Mass Transport and Applications to Problems in Signal Processing and Tracking	Allen Tannenbaum SUNY/Stony Brook
1330-1400	Computable Performance Analysis of Sparse Recovery	Arye Nehorai Washington University
1400-1430	BREAK	
1430-1500	SAR Correlation Imaging and Bias in SAR Images	Kaitlyn Voccola Colorado State University
1500-1530	Analysis of Geometric Distortions due to Phase Mismatch in SAR Imagery	Birsen Yazici RPI
1530-1600	Hyperspectral SAR	Matthew Ferrara Matrix Research, Inc
1600-1630	Graphical Models for Scalable Processing and Learning of Behavioral Models from Complex Sensor Data	Alan Willsky MIT
1630-1700	Quantum Operations on Entangled Photons Using Lyot Filters	David Hughes AFRL/RI
1700	MEETING ADJOURN	