



Fourth Tri-Service Waveform Diversity Workshop

14 – 15 November 2006
Naval Research Laboratory (NRL)

Tuesday, 14 November

- 0715 – 0750 Check-In
- 0750 – 0800 Welcome
Aaron Shackelford (NRL)
- 0800 – 0830 Historical Overview of Waveform Diversity
Eric Mokole (NRL)
- 0830 – 0900 Overview of AFRL Waveform Diversity Activities
Michael Wicks (AFRL)
- 0900 – 0930 Army Research Laboratory's Architecture for Supporting Waveform Diversity
Marvin A. Conn, Geoffrey H. Goldman (ARL)
- 0930 – 1000 Morning Break**
- 1000 – 1030 Overview of NRL Waveform Diversity Activities
Eric Mokole (NRL)
- 1030 – 1100 50 Million Years of Waveform Diversity
*Christopher J. Baker, Hugh D. Griffiths, Michele Vespe
(University College London)*
- 1100 – 1130 Adaptive Waveform Scheduling and Testing with the NRL Advanced Multifunction RF Concept Testbed
Richard Chen, Greg Tavik, Kevin Wagner (NRL)
- 1130 – 1230 Lunch**

- 1230 – 1300 Recent Distributed Coherent Aperture Measurements for Next Generation BMD Radar
Scott Coutts, K. Cuomo, J. McHarg, F. Robey, D. Weikle (MIT Lincoln Laboratory)
- 1300 – 1330 Waveform Diversity for Distributed Aperture Radars – Experimental Verification
Russell Brown (Stiefvater Consultants), Richard Schneible (AFRL), Michael Wicks (AFRL), Robert McMillan (SMDC)
- 1330 – 1400 Waveform Diversity Considerations for the Distributed Imaging Radar Technology Program
Stephen Welstead (Radiance Technologies Inc.)
- 1400 – 1430 Afternoon Break**
- 1430 – 1500 Experiments for the Direction of Arrival Using a Vector Antenna
Badria Elnour, D. Erricolo (University of Illinois at Chicago), M. Hurtado, A. Nehorai (Washington University in St. Louis)
- 1500 – 1530 Adaptive Pulse Compression Preliminary Experimental Results
Aaron Shackelford, Jean de Graaf, Sukomal Talapatra (NRL), Shannon D. Blunt (University of Kansas), Karl Gerlach (NRL)
- 1530 – 1600 Photonically-Synthesized Phase-Precompensated Waveforms to Combat Broadband Antenna Phase Distortions
Jason McKinney (NRL), Dimitrios Peroulis, Andrew M. Weiner (Purdue University)
- 1600 – 1630 Advanced Radar Capabilities Enabled by S2 Material Based Photonic Signal Processing Hardware
Kristian D. Merkel (S2 Corporation)
- 1630 – 1700 Overview of Day 1

Wednesday, 15 November

- 0730 – 0800 Check-In
- 0800 – 0830 Waveform Preconditioning for Clutter Rejection
Birsen Yazici, T. Varslot, C. E. Yarman, M. Cheney, L. Scharf (Rensselaer Polytechnic Institute)
- 0830 – 0900 Waveform Design for Agile Sensing In Clutter
Sandeep P. Sira, Antonia Papandreou-Suppappola, Darryl Morrell, Douglas Cochran (Arizona State University)
- 0900 – 0930 Joint Transmitter and Receiver Diversity using Information Theory
Jaime R. Roman, John W. Garnham (Science Applications International Corp.), Paul Antonik (AFRL)
- 0930 – 1000 Morning Break**
- 1000 – 1030 Using a Phase Space Statistic to Identify Resonant Objects
Thomas Carroll (NRL)
- 1030 – 1100 Application of Waveform Diversity to Improve Surface Moving Target Indicator (SMTI) System Performance
John W. Garnham, Jaime R. Roman (Science Applications International Corp.), Paul Antonik (AFRL)
- 1100 – 1130 Denial of Access to Radar Radiations
Russell Brown, Yuhong Zhang, Richard Scheible (Stiefvater Consultants), Michael Wicks (AFRL), Christopher Prosser (USAF AFRL)
- 1130 – 1230 Lunch**
- 1230 – 1300 The Implications of Radar and WiMAX
Larry Cohen (NRL)
- 1300 – 1330 Generation of Spectrally Confined Transmitted Radar Waveforms
Jean de Graaf, Hugh Faust (NRL)
- 1330 – 1400 Spectral Reduction of Pulse Compression Waveforms
Frank Kretschmer
- 1400 – 1430 Afternoon Break**

- 1430 – 1500 Adaptive Construction of Informationally Optimal Space-Time Radar Transmit Functions
Jim Stiles (University of Kansas)
- 1500 – 1530 Multistatic Ambiguity Function and Waveform Diversity for Distributed Sensing
Ivan Bradaric, G. Capraro, C. Capraro (Capraro Technologies, Inc.)
- 1530 – 1600 Ambiguity and Sidelobe Behavior of CAZAC Coded Waveforms
Ioannis Konstantinidis, Andrew Kebo, John J. Benedetto, Mike Dellomo, Jeffrey M. Sieracki (University of Maryland)
- 1600 – 1630 Overview of Day 2