

Dr. Daniel W. Bliss

## BIO

Dr. Dan Bliss has been employed by MIT Lincoln Laboratory since 1997. He focuses on multi-antenna adaptive signal processing, primarily for wireless communication systems. His research topics have included development of angle-of-arrival and synthetic aperture wireless emitter geolocation algorithms. This research included theoretical estimation bounds for geolocation, used to aid system optimization. He has developed algorithms for multichannel multiuser detectors (MCMUD), including space-time-frequency adaptive processing and iterative approaches. He has investigated multiple-input multiple-output (MIMO) communication systems, developing information theoretic bounds, space-time turbo codes, and detection algorithms. He has investigated system applications and limitations of ultra wideband (UWB) communication. He has also developed signal processing algorithms for complex vector images.

Dan received his Ph.D. and M.S. in Physics from the University of California at San Diego (1997 and 1995), and his BSEE in Electrical Engineering from Arizona State University (1989). Employed by General Dynamic (1989-1993) he designed fault tolerant launch vehicle avionics, and performed magnetic field calculations and optimization for high energy particle accelerator superconducting magnets. His doctoral research (1993-1997), performed at Cornell University, was in the area of high energy particle physics, searching for bound states of gluons, studying the two-photon production of hadronic final states, and investigating innovative techniques for lattice gauge theory calculations.