

Alan Lee Migdall

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Education	Massachusetts Institute of Technology	
	<ul style="list-style-type: none">• Ph.D., Atomic and Molecular Physics, 1984 “Collisional Energy Transfer in a Supersonic Beam”	
	University of Maryland	
	<ul style="list-style-type: none">• B.S., Physics and Mathematics, 1978	
Professional Experience	Staff physicist	1986-Present
	Optical Technology Division at NIST Gaithersburg, MD.	
	NRC Postdoctoral Fellow	1984 – 1986
	National Bureau of Standards Gaithersburg, MD.	
	Research Assistant	1978 – 1984
	Massachusetts Institute of Technology, Cambridge MA.	
	Research Assistant , University of Maryland	1976 – 1978

Current Research Interests

Single-photon sources, detectors, processors, and quantum memory for quantum cryptography and quantum computation. Correlated two-photon light, nonlinear optics, parametric downconversion, Raman scattering, microstructure fibers, multi-particle entanglement, classical and quantum metrology.

Selected Professional Memberships and Activities

Organizer: Single Photon Workshop, Torino, Italy 2007
Organizer/ subcommittee chair: Quantum Electronics and Laser Science Conference 2006, Quantum Optics and Quantum Information, Long Beach, CA 2005-2006
Organizer: SPIE International Symposium on Advanced Photon Counting Techniques (PT106), Optics East, Boston, MA 2006
Editor: J. of Modern Optics Special Issue: Single-Photon Detectors, Applications, and Measurement Methods 2003-2004 and 2005-2006
Member: Quantum Information Science and Technology Roadmap Technology Experts Panel 2003-2006
Member: NASA Advisory Committee On Mars Optical Communication Link 2005
Organizer: Single Photon Workshop, NPL, Teddington, UK 2005
Organizer: NIST-ARDA entanglement workshop, Gaithersburg, MD 2004
Member: program committee, Quantum Electronics and Laser Science Conference, 2001, Quantum Optics
Organizer: NIST-ARDA Workshop on Single-Photon Detectors, Applications, and Measurement Methods, NIST, Gaithersburg, MD 2003
Organizer: Single Photon Sources and Detectors, IQEC, San Francisco, CA 2003
Science advisor: for National Academy of Sciences middle school optics program 2000-2002
OSA Eastman/Presidential Speaker 1997-present
Member: Council on Optical Radiation Measurements 1986-present
Life member: American Physical Society 1984-present

Publications

60+ (for list see www.physics.nist.gov/Divisions/Div844/publications/migdall.html)