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Principal Physicist, Applied Physics Laboratory, University of Washington
Associate Professor, University of Washington School of Oceanography

EDUCATION

Ph.D., Physics, Washington State University, 1985

M.S., Physics, Washington State University, 1983

B.S., Physics, Washington State University, 1979

HONORS/AWARDS

Fellow of the Acoustical Society of America, 1998

EMPLOYMENT

2011- Department Chairman, Applied Physics Laboratory, Univ. of Washington,
Acoustics Department
2001 - Associate Professor, University of Washington, School of Oceanography
2000 - Principal Physicist, Applied Physics Laboratory, Univ. of Washington
2008 - 2011 IPA at Office of Naval Research
2000-2006 Department Chairman, Applied Physics Laboratory, Univ. of Washington,
Ocean Acoustics Department
1998-2000 Affiliate Associate Professor, University of Washington, School of
Oceanography
1995-2000 Senior Physicist, Applied Physics Laboratory, Univ. of Washington
1988-1995 Physicist, Applied Physics Laboratory, Univ. of Washington
1985-1988 Physicist, Naval Coastal Systems Center, Panama City, FL
1979-1981 Physicist, McDonnell Douglas, Huntington Beach, CA

PUBLICATIONS:

K. L. Williams, "Adding thermal and granularity effects to the effective density fluid model, *J. Acoust. Soc. Am.*, 133, EL431-437 (2013).

S. G. Kargl, K. L. Williams, E. I. Thorsos, "Synthetic Aperture Sonar Imaging of Simple Finite Targets during SAX04," *IEEE J. Ocean. Eng.*, **37**, 516-532 (2012).

M. Zampolli, A. L. España, K. L. Williams, S. G. Kargl, E. I. Thorsos, J. L. Lopes, J. L. Kennedy, and P. L. Marston. "Low- to mid-frequency scattering from elastic objects on a sand sea floor: Simulation of frequency and aspect dependent structural echoes." *J. Comp. Acous.*, Vol. 20, No. 2 (2012).

J. R. La Follett, K. L. Williams, P.L.Marston, "Boundary effects on backscattering by a solid aluminum cylinder: Experiment and finite element model comparisons," *J. Acoust. Soc. Am.*, 130, 669 (2011).

K. L. Williams, S. G. Kargl, E. I. Thorsos, D. S. Burnett, J. L. Lopes, M. Zampolli, P. L. Marston, "Acoustic scattering from an aluminum cylinder in contact with a sand sediment: Measurements, modeling, and interpretation," *J. Acoust. Soc. Am.*, 127, 3356-3371 (2010).

K. L. Williams, "Forward Scattering from a rippled sand/water interface: Modeling, measurements and determination of the plane wave, flat surface reflection coefficient," *IEEE J. Ocean. Eng.*, **34**, 399-406 (2009).

K. L. Williams, D. R. Jackson, D.Tang, K. B. Briggs, E. I. Thorsos," Acoustic Backscattering from a Sand and a Sand/Mud Environment: Experiments and Data/Model Comparisons," *IEEE J. Ocean. Eng.*, **34**, 388-398 (2009).

D. Tang, K. L. Williams, E. I. Thorsos, "Utilizing High-Frequency Acoustic Backscatter to Estimate Bottom Sand Ripple Parameters," *IEEE J. Ocean. Eng.*, **34**, 431-443 (2009).

B. T. Hefner, D. R. Jackson, K. L. Williams, and E. I. Thorsos, "Mid- to high-frequency acoustic penetration and propagation measurements in a sandy sediment," *IEEE J. Ocean. Eng.*, **34**, 372-387 (2009).

D. R. Jackson, M. D. Richardson, K. L. Williams, A. P. Lyons, C. D. Jones, K. B. Briggs, and D. Tang, "Acoustic observation of the time dependence of the roughness of sandy sea floors," *IEEE J. Ocean. Eng.*, **34**, 407-422 (2009).

A. L. Gerig, A. P. Lyons, E. Pouliquen, K. L. Williams, "Comparison of Seafloor Roughness and Scattered Acoustic Temporal Decorrelation", *IEEE J. Ocean. Eng.*, **34**, 423-430 (2009).

J. E. Piper, R. Lim, E. I. Thorsos, and K. L. Williams, "Buried sphere detection using a synthetic aperture sonar," *IEEE J. Ocean. Eng.*, **34**, 485-494 (2009).

K. L. Williams, "Sand acoustics: The effective density fluid model, Pierce/Carey expressions and inferences for porous media modeling, *J. Acoust. Soc. Am.*, 125, EL164-170 (2009).

J. Yang, D. Tang, K. L. Williams, "Direct measurement of sediment sound speed in Shallow Water '06," *J. Acoust. Soc. Am.* 124, EL116 (2008)

D. Tang, F. S. Henyey, Z. Wang, K. L. Williams, D. Rouseff, P. H. Dahl, J. Quijano, and J. W. Choi, "Mid-frequency acoustic propagation in shallow water on the New Jersey shelf. II. Intensity fluctuation," *J. Acoust. Soc. Am.* 124, EL91 (2008)