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Professional Experience

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| Associate Research Professor, Florida Atlantic University Harbor Branch Oceanographic Institute, Fort Pierce, FL | 2023 – Present |
| Vice President of Science and Technology, Sequoia Scientific, Inc., Bellevue, WA | 2019 – 2023 |
| Scientist, Sequoia Scientific, Inc., Bellevue, WA | 2011 – 2019 |
| Graduate Research Assistant, University of Maine, MISC Lab, Orono, ME | 2004 – 2011 |
| Graduate Research Assistant, University of Maine, Intelligent Systems Lab, Orono, ME | 2001 – 2004 |

Education

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| 2011 | Ph.D., Oceanography, University of Maine, School of Marine Sciences “Optical Signatures of Particle Size and Dynamics in the Marine Environment” Advisor: Emmanuel Boss |
| 2004 | M.S., Electrical Engineering, University of Maine, School of Engineering “Computational Intelligence Approaches to Ocean Color Inversion” Advisor: Habtom Ressom |
| 2000 | B.S., Electrical Engineering, University of Maine, School of Engineering |

Peer-Reviewed Publications

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| 2024 | S. El Mousadik, R. Ouillon, C. Muñoz-Royo, W. Slade , C. Pottsmith, T. Leeuw, M.H. Alford, O.A. Mikkelsen, and T. Peacock, “In situ optical measurement of particles in sediment plumes generated by a pre-prototype polymetallic nodule collector,” <i>Scientific Reports</i> 14, 23894. |
| 2024 | B. Collister, J. Hair, C. Hostetler, A. Cook, A. Ibrahim, E. Boss, A. J. Scarino, T. Shingler, W. Slade , M. Twardowski, M. Behrenfeld, and I. Cetinić, “Assessing the utility of high spectral resolution lidar for measuring particulate backscatter in the ocean and evaluating satellite ocean color retrievals,” <i>Remote Sensing of Environment</i> 300, 113898. |
| 2023 | M. Estapa, C. Durkin, W. Slade , C. Huffard, S. O'Neill, and M. Omand, “A new, global optical sediment trap calibration,” <i>Limnology and Oceanography: Methods</i> 22, 77–92. |
| 2021 | S. Menden-Deuer, W.H. Slade , and H. Dierssen, “Promoting Instrument Development for New Research Avenues in Ocean Science: Opening the Black Box of Grazing,” <i>Frontiers in Marine Science</i> 8, 695938. |
| 2021 | T. Miles, W.H. Slade , and S. Glenn, “Sediment Resuspension and Transport from a Glider-Integrated Laser in Situ Scattering and Transmissometry (LISST) Particle Analyzer,” <i>Journal of Atmospheric and Oceanic Technology</i> 38, 1325–1341. |

- 2020 P.K. Lange, P.J. Werdell, Z.K. Erickson, G. Dall’Olmo, R.J.W. Brewin, M.V. Zubkov, G.A. Tarran, H.A. Bouman, **W.H. Slade**, S.E. Craig, N.J. Poulton, A. Bracher, M.W. Lomas, and I. Cetinić, “Radiometric approach for the detection of picophytoplankton assemblages across oceanic fronts,” *Optics Express* 28, 25682–25705.
- 2018 E. Boss, N. Haëntjens, T.K. Westberry, L. Karp-Boss, and **W.H. Slade**, “Validation of the particle size distribution obtained with the laser in-situ scattering and transmission (LISST) meter in flow-through mode,” *Optics Express* 26, 11125–11136.
- 2017 A.P. Chase, E. Boss, I. Cetinić, and **W.H. Slade**, “Estimation of phytoplankton accessory pigments from hyperspectral reflectance spectra: Toward a global algorithm,” *Journal of Geophysical Research: Oceans* 122, 9725–9743.
- 2016 I. Cetinić, N. Poulton, and **W.H. Slade**, “Characterizing the phytoplankton soup: pump and plumbing effects on the particle assemblage in underway optical seawater systems,” *Optics Express* 24, 20703–20715.
- 2016 M. Ottaviani et al., “Airborne and shipborne polarimetric measurements over open ocean and coastal waters: Intercomparisons and implications for spaceborne observations,” *Remote Sensing of Environment* 206, 375–390.
- 2015 **W.H. Slade** and E. Boss, “Spectral attenuation and backscattering as indicators of average particle size,” *Applied Optics* 54, 7264–7277.
- 2013 E. Boss, H. Gildor, **W.H. Slade**, L. Sokoletsky, A. Oren, and J. Loftin, “Optical properties of the Dead Sea,” *Journal of Geophysical Research: Oceans* 118, 1821–1829.
- 2013 E. Boss, M. Picheral, T. Leeuw, A. Chase, E. Karsenti, G. Gorsky, L. Taylor, **W.H. Slade**, J. Ras, and H. Claustre, “The characteristics of particulate absorption, scattering and attenuation coefficients in the surface ocean; Contribution of the Tara Oceans expedition,” *Methods in Oceanography* 7, 52–62.
- 2013 N. Briggs, **W.H. Slade**, E. Boss, and M. Perry, “Method for estimating mean particle size from high-frequency fluctuations in beam attenuation or scattering measurements,” *Applied Optics* 52, 6710–6725.
- 2013 T. Leeuw, S. Newburg, E. Boss, **W.H. Slade**, M. Soroka, J. Pederson, C. Chryssostomidis, and F. Hover, “Remote identification of the invasive tunicate *Didemnum vexillum* using reflectance spectroscopy,” *Applied Optics* 52, 1758–1763.
- 2011 **W.H. Slade**, E. Boss, and C. Russo, “Effects of particle aggregation and disaggregation on their inherent optical properties,” *Optics Express* 19, 7945–7959.
- 2010 **W.H. Slade**, E. Boss, G. Dall’Olmo, M.R. Langner, J. Loftin, M.J. Behrenfeld, C. Roesler, and T.K. Westberry, “Underway and moored methods for improving accuracy in measurement of spectral particulate absorption and attenuation,” *Journal of Atmospheric and Oceanic Technology* 27, 1733–1746.
- 2009 E. Boss, **W.H. Slade**, M. Behrenfeld, and G. Dall’Olmo, “Acceptance angle effects on the beam attenuation in the ocean,” *Optics Express* 17, 1535–1550.
- 2009 E. Boss, **W.H. Slade**, and P. Hill, “Effect of particulate aggregation in aquatic environments on the beam attenuation and its utility as a proxy for particulate mass,” *Optics Express* 17, 9408–9420.
- 2009 G. Dall’Olmo, T.K. Westberry, M.J. Behrenfeld, E. Boss, and **W.H. Slade**, “Significant contribution of large particles to optical backscattering in the open ocean,” *Biogeosciences* 6, 947–967.
- 2006 **W.H. Slade** and E. Boss, “Calibrated near-forward volume scattering function obtained from the LISST particle sizer,” *Optics Express* 14, 3602–3615.

- 2005 H. Resson, R.L. Miller, P. Natarajan, and **W.H. Slade**, “Computational Intelligence and its Application in Remote Sensing,” in Remote Sensing of Coastal Aquatic Environments, R. Miller, C. Castillo, and B. McKee, eds. (Springer).
- 2004 **W.H. Slade**, H.W. Resson, M.T. Musavi, and R.L. Miller, “Inversion of ocean color observations using particle swarm optimization,” IEEE Transactions on Geoscience Remote Sensing 42, 1915–1923.

Other Publications and Reports

- 2020 **W.H. Slade**, T. Peacock, and M. Alford, “Monitoring Deep-Sea Mining’s Effects: New Instrument to Measure Sediment Properties in Mining Plumes,” Sea Technology 61(9), 13–16.
- 2020 E. Boss et al., “Recommendations for plankton measurements on the GO-SHIP program with relevance to other sea-going expeditions.” SCOR Working Group 154, GO-SHIP Report.
- 2019 E. Boss, M. Twardowski, D. McKee, I. Cetinić, and **W.H. Slade**, “Beam Transmission and Attenuation Coefficients: Instruments, Characterization, Field Measurements and Data Analysis Protocols,” IOCCG Ocean Optics and Biogeochemistry Protocols for Satellite Ocean Colour Sensor Validation, Volume 2, edited by A.R. Neeley and I. Cetinić, IOCCG, Dartmouth, NS, Canada.
- 2019 E. Boss et al., “Inherent Optical Property Measurements and Protocols: Best Practices for the Collection and Processing of Ship-Based Underway Flow-Through Optical Data,” IOCCG Ocean Optics and Biogeochemistry Protocols for Satellite Ocean Colour Sensor Validation, Volume 4, edited by A.R. Neeley and A. Mannino, IOCCG, Dartmouth, NS, Canada.

Awards, Honors, and Fellowships

- 2008 Best Student Paper, Ocean Optics XIX Conference, Tuscany, Italy.
- 2004 Best Student Paper, IEEE Congress on Evolutionary Computation (CEC 2004), Portland, OR.
- 2002 Best Student Paper, 7th International Conference on Remote Sensing for Marine and Coastal Environments, Miami, FL.
- 2001 NASA Graduate Student Researchers Project Fellowship.
- 1999 Eta Kappa Nu, Electrical Engineering Honor Society.
- 1998 NSF Research Experiences for Undergraduates Fellowship, “An Artificial Neural Network System for Automated DNA Base-calling.”

Funded Research, Development, and Consulting

- 2024 “Next Generation Polarized Scattering Instrument for Ocean Biogeochemistry Applications,” NSF OTIC, \$847,482.
- 2024 “Developing a Facility for Measuring Hyperspectral Scattering Properties,” Harbor Branch Oceanographic Institute Foundation, \$51,056.
- 2022 “Bio-optical Sensor for the Direct Detection of Sinking Marine Particles,” NSF Phase I STTR, \$254,110.
- 2022 “In-Situ Characterization of Particle-Size Distribution and Settling Velocity Distribution Using the LISST-RTSSV Sensor for the TMC Collector Trials,” contracted services with The Metals Company, \$122,200.

- 2021 “In-Situ Hyperspectral Absorption Instrument in Support of Ocean Color and Biogeochemistry,” NASA Phase II SBIR, \$749,800.
- 2020 “In-Situ Hyperspectral Absorption Instrument in Support of Ocean Color and Biogeochemistry,” NASA Phase I SBIR, \$124,585.
- 2020 “Real-Time, In-Situ Sensing of Sediment Properties for Environmental Monitoring of Deep-Sea Polymetallic Nodule Mining,” ARPA-E Phase I/II SBIR, \$499,767.
- 2019 LISST-Tau, private funding for development of a high-accuracy transmissometer for underwater vehicles and other platforms, \$316,150.
- 2018 “Statistical Modeling in Support of the Lower Passaic River Water Column Monitoring Project,” consulting services with Tetra Tech, Inc., \$93,547.
- 2017 “Instrument for Measurement of Hyperspectral Backscattering in Natural Waters,” NASA Phase II SBIR, \$734,799.
- 2016 LISST-Glider, ONR DURIP to T. Miles (Rutgers), custom integration of LISST instrument into Slocum gliders, \$410,000.
- 2016 “Investigating an Instrument for Measurement of Hyperspectral Backscattering in Natural Waters,” NASA Phase I SBIR, \$121,100.
- 2016 “Instrument for Measurement of Oceanic Particle Size Distribution from Submicron to Mesoplankton,” NASA Phase II SBIR, \$742,985.
- 2016 “Resolving Time Scales of Removal of Suspended Sediment with a Geostationary Ocean Color Satellite,” ONR, PI E. Boss (UMaine), subcontract for fieldwork support, \$20,700.
- 2015 “Measurement of Oceanic Particle Size Distribution in Support of Carbon Cycle Research and Ocean Color Remote Sensing,” Schmidt Ocean Institute, Co-I with I. Cetinić (PI, NASA GSFC), P. J. Werdell (NASA GSFC), and M. Estapa (Skidmore), 21 days ship time, R/V Falkor.
- 2015 “Instrument for Measurement of Oceanic Particle Size Distribution from Submicron to Mesoplankton,” NASA Phase I SBIR, \$124,496.
- 2014 “Understanding natural variability of VSFs and its impact on biogeochemical retrieval from ocean color,” NASA PACE Science Team, Co-I with X. Zhang (PI, UND) and D. Gray (NRL), \$54,000 subaward total FY15–17, extended through 2020.
- 2012 “A Compact In Situ Sensor for Measurement of Absorption and Backscattering in Natural Waters,” NASA Phase I SBIR, \$124,455.
- 2012 “Multi-Sensor, Ecosystem-Based Approaches for Estimation of Particulate Organic Carbon,” NASA Ocean Biology and Biogeochemistry, Co-I with I. Cetinić (PI, UMaine), N. Poulton (Bigelow Lab) and M. J. Perry (UMaine), \$977,177 total budget, \$297,447 subaward total FY13–15.

Field Experience

- 2017 R/V Falkor, Sea to Space Particle Investigation (Co-Investigator), Honolulu, HI to Portland, OR, measurements: flowthrough optics, in situ radiometry, CTD stations, biogeochemistry, 20 January–17 February.
- 2016 R/V Jangmok-1, Sediment and particle dynamics measurements parallel with NASA/KIOST KORUS-OC campaign, coastal optical property measurements, 17 May–27 May.

- 2014 R/V New Horizon, NH1418, transect from Honolulu, HI to 3S, 150W, measurements: flowthrough optics, in situ radiometry, CTD stations, biogeochemistry, 19 September–8 October.
- 2014 Ship-Aircraft BioOptical Research (SABOR) project, R/V Endeavor, EN542, Narragansett, RI, to Gulf of Maine, North Atlantic, Sargasso Sea, and return, measurements: flowthrough optics, in situ radiometry, CTD stations, biogeochemistry, 18 July–5 August. SABOR focused on exploring and advancing technology for measuring biogeochemistry from space, using coordinated measurements between R/V and airborne lidar and polarimetry.
- 2013 R/V Atlantic Explorer, AE1319, E. Boothbay, ME to Labrador Sea to Bermuda, measurements: flowthrough optics, in situ radiometry, CTD stations, biogeochemistry, 20 August–11 September.
- 2013 R/V Revelle, RR1305-1306, Kaoshiung, Taiwan to Luzon Strait and South China Sea, measurements: flowthrough optics, in situ radiometry, 5–27 May.
- 2009 R/V Tara, responsible for installing and sea-trial of flowthrough optical instrumentation on vessel for Tara Expeditions three-year exploratory circumnavigation.
- 2008 R/V Melville, Philippines Straits Dynamics Experiment (PhilEx), measurements: flow-through optics, CTD and bio-optical casts, and radiometry, 6–28 February.
- 2006 R/V Ka'imimoana, GP1-06 and GP5-06, Honolulu, HI to Equatorial Pacific transects along 125W and 140W from +/-12N, measurements: flowthrough optics, in situ radiometry, CTD stations, biogeochemistry, 6 January–9 February and 17 August–24 September.
- 2004 – 2009 WHOI Martha's Vineyard Coastal Observatory (MVCO), Optics Acoustics and Stress In Situ (OASIS), bottom tripods in cabled observatory infrastructure. Deployments were designed to capture optical and acoustical signatures of strong physical forcing and particle dynamics, timed to capture summer-fall transitional storms and hurricanes (September–October 2004, 2005, 2007, 2009). Responsible for coordinating deployment of all OASIS assets at MVCO in 2009.

Professional Meetings and Abstracts (First Author)

(*) oral presentation, (**) invited presentation, (#) extended abstract in conference proceedings

- 2023 W. H. Slade, T. Leeuw, D. R. Dana, and E. Boss, “Hyperspectral Backscattering and IOP Measurement in Support of Ocean Color Validation,” HYPERNETS Science Conference, Brussels, 2–7 October. *
- 2022 W. H. Slade, M. Estapa, and S. O'Neill, “Optical Sediment Trap: Scattering properties of accumulating sinking marine particles,” Ocean Optics Conference XXV, Quy Nhon, Vietnam, 2–7 October.
- 2019 W. H. Slade, Y. C. Agrawal, D. R. Dana, T. Leeuw, C. Pottsmith, and R. Srnsky, “Emerging new technologies for ocean colour research: Scattering sensors,” International Ocean Colour Science (IOCS) Meeting, Busan, South Korea, 9–12 April. *
- 2018 W. H. Slade and Y. Agrawal, “Measuring near- π backscattering, ...where we left off,” Recent ADvances in LIDAR (RAD-LIDAR), HBOI, Fort Pierce, FL, 5–6 November. *
- 2018 W. H. Slade and Y. Agrawal, “Measuring light backscattering for lidar applications,” Particles in Europe (PiE), Lisbon, Portugal, 14–17 October.

- 2018 W. H. Slade, Y. Agrawal, and T. Leeuw, “Developing an instrument for measurement of oceanic particle size distribution in ship-based underway flow-through systems,” Ocean Optics XXIV, Dubrovnik, Croatia, 7–12 October.
- 2016 W. H. Slade and Y. C. Agrawal, “Laser scattering instrument for measurement of oceanic particle size distribution from submicron to mesoplankton,” Ocean Sciences Meeting, New Orleans, LA, 23–28 February.
- 2015 W. H. Slade, Y. C. Agrawal, D. R. Dana, T. Leeuw, and C. Pottsmith, “LISST-ABS: A Low-Cost Submersible Acoustic Sediment Sensor,” AGU Fall Meeting, San Francisco, CA, 14–18 December.
- 2014 W. H. Slade, Y. C. Agrawal, and I. Cetinić, “Measurements of volume scattering function and linear polarization properties of particles using the LISST-VSF instrument,” Ocean Sciences Meeting, Honolulu, HI, 21–26 February. *
- 2014 W. H. Slade, I. Cetinić, M. J. Perry, and N. Poulton, “Fracex: Toward understanding the effects of ‘particle community’ on particulate organic carbon optical proxies,” Ocean Sciences Meeting, Honolulu, HI, 21–26 February. *
- 2013 W. H. Slade, Y. C. Agrawal, and O. A. Mikkelsen, “Comparison of measured and theoretical scattering and polarization properties of narrow size range irregular sediment particles,” MTS/IEEE Oceans Conference, San Diego, CA, 23–27 September. **
- 2012 W. H. Slade, N. Briggs, and E. Boss, “High-frequency fluctuations in optical measurements reflect changes in particle size distribution in a bottom nepheloid layer,” Ocean Sciences Meeting, Salt Lake City, UT, 20–24 February.
- 2012 W. H. Slade, Y. C. Agrawal, and O. A. Mikkelsen, “Measurement of particle optical scattering and polarization properties using the LISST-VSF,” Particles in Europe (PiE), Barcelona, Spain, 16–19 October. *
- 2012 W. H. Slade, Y. C. Agrawal, O. A. Mikkelsen, “Measurement of angular volume scattering and polarization properties of narrow size range sediments,” Ocean Optics XXI, Glasgow, Scotland, 8–12 October. #
- 2010 W. H. Slade and E. Boss, “Spectral attenuation and backscattering as indicators of particle size distribution,” Ocean Optics XX, Anchorage, AK, September 25–1 October.
- 2010 W. H. Slade and E. Boss, “Optical consequences of particle aggregation,” Ocean Sciences Meeting, Portland, OR, 22–26 February. **
- 2008 W. H. Slade and E. Boss, “Significance of particle aggregation on their optical properties,” Ocean Optics XIX, Il Ciocco, Tuscany, Italy, 6–10 October. Awarded Best Student Paper. #
- 2008 W. H. Slade and E. Boss, “Is the spectral shape of particle backscattering a good indicator of particle size?” Ocean Sciences Meeting, Orlando, FL, 2–7 March.
- 2006 W. H. Slade and E. Boss, “Volume scattering function variability in a nearshore bottom nepheloid layer,” Ocean Optics XVIII, Montreal, Quebec, 9–13 October. Honorable Mention for Best Student Paper. #
- 2006 W. H. Slade, M. R. Langner, E. Boss, and C. Roesler, “Retrieving in situ particulate absorption spectra in optically clear waters: An example from the Equatorial Pacific,” Ocean Optics XVIII, Montreal, Quebec, 9–13 October. #
- 2006 W. H. Slade, E. Boss, T. G. Milligan, P. S. Hill, and J. H. Trowbridge, “Observations of particle dynamics during OASIS 2004 and 2005,” 2006 Ocean Sciences Meeting, Honolulu, HI, 20–24 February.

- 2005 W. H. Slade and E. Boss, “Observations of optical properties during a coastal resuspension event - Implications for remote sensing of suspended sediments,” 8th International Conference on Remote Sensing for Marine and Coastal Environments, Halifax, Nova Scotia, 17–19 May. *
- 2004 W. H. Slade, E. Boss, and L. Azevedo, “Calibration of the LISST-100 to provide near-forward volume scattering function,” Ocean Optics XVII, Freemantle, Australia, 25–29 October. #
- 2004 W. H. Slade, H. Resson, M. T. Musavi, and R. L. Miller, “Ocean color inversion by particle swarm optimization,” IEEE Congress on Evolutionary Computation (CEC 2004), Portland, OR, 19–23 June. Awarded Best Student Paper. *#
- 2004 W. H. Slade, R. L. Miller, H. Resson, and P. Natarjan, “Neural network retrieval of phytoplankton abundance from remotely-sensed ocean radiance,” IASTED International Conference on Neural Networks and Computational Intelligence (NCI 2004), Grindelwald, Switzerland, 23–25 February. *#
- 2003 W. H. Slade, R. L. Miller, H. Resson, and P. Natarjan, “Ensemble neural network methods for satellite-derived estimation of chlorophyll a,” International Joint Conference on Neural Networks (IJCNN), Portland, OR, 20–24 July. *#
- 2002 W. H. Slade, R. L. Miller, H. Resson, and P. Natarjan, “Improved modeling of satellite-derived chlorophyll a concentration using neural networks,” Ocean Optics XVI, Santa Fe, NM, 18–22 November. #
- 2002 W. H. Slade, R. L. Miller, H. Resson, and P. Natajan, “Intelligent Ocean Color Remote Sensing,” 36th Annual Congress of the Canadian Meteorological and Oceanographic Society (CMOS), Rimouski, Québec, Canada, 22–25 May.
- 2002 W. H. Slade, R. L. Miller, H. Resson, and P. Natajan, “Neural network modeling of chl-a concentration from remotely sensed data,” 7th International Conference on Remote Sensing for Marine and Coastal Environments, Miami, FL, 20–22 May. Awarded Best Student Poster.

Other Professional Activities

- Completed Association of College and University Educators (ACUE) “Inspiring Inquiry and Preparing Lifelong Learning” and “Creating a Productive Learning Environment” courses 2024
- Guest lecturer, “Calibration & Validation for Ocean Color Remote Sensing” graduate-level summer optics course, sponsored by NASA, the University of Maine, and Bowdoin College (Schiller Coastal Studies Center), 13–20 June. 2023
- Planning committee member, Ocean Optics XXVII. 2023 – Present
- Associate Editor for Optics Express, Optica Publishing Group. 2022 – Present
- Guest Associate Editor for Ocean Observation for Frontiers in Marine Science and Review Editor for Multi- and Hyper-spectral Imaging for Frontiers in Remote Sensing. 2019 – Present
- Reviewer for Applied Optics, Limnology and Oceanography, Optics Express, Marine Ecology Progress Series, Estuarine Coastal and Shelf Science, International Journal of Remote Sensing, and Frontiers in Marine Science. 2005 – Present
- Guest lecture, University of Washington, OCN 261/361/461, “Ocean Optics – Why Study the Ocean with Optical Sensors?,” 24 April. 2023

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| Topic Editor for Frontiers in Marine Science Research Topic “Advancing Ocean Observing Technology and Industry - Science Partnerships for the Future of Ocean Science.” | 2020 – 2021 |
| Co-organizer, LISST-ABS and LISST-AOBS fundamentals workshop developed by Sequoia, USGS, and sponsored by the Federal Interagency Sedimentation Project, 23 September. | 2020 |
| Panel participant, “Observations for the Present and Future – A Panel of Vendors’ Views on Technology,” moderators Dr. Paula Bontempi (NASA) and Dr. Rick Spinrad (MTS), Ocean Sciences Meeting, San Diego CA, 19 February. | 2020 |
| Guest lecture, University of Washington, OCN 351, “Ocean Optics and Basics of Optical Sensors,” with MJ Perry, 28 January. | 2020 |
| Invited lecture, “Measuring Optical Properties of Particles from Coastal to Ocean Waters,” Korea Institute of Ocean Science and Technology (KIOST), Busan, South Korea, 8 March. | 2018 |
| Co-organizer, “Particles in Europe (PiE) 2018” conference, Lisbon, Portugal. | 2017 – 2018 |
| Planning committee member, Ocean Optics XXIII, Victoria, BC, Canada. | 2015 – 2016 |
| Co-Investigator on the NASA PACE ocean color mission Science Team, serving on Environmental Methodologies, IOP Methodologies, and Datasets subgroups. | 2014 – 2016 |
| Methods for Ship-based Flowthrough Optical Measurements workshop for collaborators on NASA-funded PACE Science Team project “A Global Database of High Horizontal Resolution IOPs for Validation of Remotely Sensed Ocean Color” (PI E. Boss), Bigelow Laboratory for Ocean Sciences, East Boothbay, ME, 12–13 March. | 2015 |
| Co-organizer, NASA Ocean Particle Backscatter Field Protocol Workshop, Austin, TX, 9–10 March. | 2015 |
| Workshop participant, “Revisiting Protocols for In Situ Optical Measurements and Instrumentation,” Ocean Optics Protocols Workshop, Ocean Optics XXII Conference, 25 October. | 2014 |
| Co-organizer, “Particles in Europe (PiE) 2014” conference, Esbjerg, Denmark. | 2013 – 2014 |
| Planning committee member, Ocean Optics XXII, Portland, ME. | 2013 – 2014 |
| Workshop participant, “Towards Optics-Based Measurements in Ocean Observatories,” Ocean Observatories Workshop, Ocean Optics XXI Conference, 7 October. | 2012 |
| Workshop participant, Consortium for Ocean Leadership/NASA data QA/QC workshop concerning bio-optical instrument data obtained from ocean observatories, University of Maine Ira C. Darling Marine Center, 6–8 June. | 2012 |
| Senator for the School of Marine Sciences in the UMaine Graduate Student Government, including service on grants committee responsible for competitive graduate student travel and research awards. | 2006 – 2010 |
| Member of organizing committee of the UMaine School of Marine Sciences Graduate Research Symposium (yearly event for graduate students and faculty). | 2005 – 2010 |
| Teaching assistant for an intensive (three-week, resident, cross-disciplinary, graduate level) special topics course “Application of Remote and In-situ Ocean | 2007 |

Optical Measurements to Ocean Biogeochemistry,” University of Maine Darling Marine Center, sponsored by NASA.

Professional Affiliations

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| Marine Technology Society (MTS) | 2023 – Present |
| Optica, formerly Optical Society of America (OSA) | 2012 – Present |
| American Geophysical Union (AGU) | 2011 – Present |
| American Society of Limnology and Oceanography (ASLO) | 2006 – Present |
| The Oceanography Society (TOS) | 2006 – Present |
| IEEE (member of IEEE Young Professionals, the Geoscience and Remote Sensing Society, and the Oceanic Engineering Society) | 2001 – 2014 |