

Merrick C. Haller

Coastal & Ocean Engineering Program

School of Civil and Construction Engineering

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Experience

- 2009 – present Associate Professor, School of Civil and Construction Engineering, Oregon State University, Corvallis
- 2001 – present joint appointment (same rank), College of Oceanic & Atmospheric Sciences
- 2012 Visiting Professor, Bosphorus University, Istanbul
- 2009 – 2011 Associate Head, School of Civil and Construction Engineering
- 2004 – 2009 Assistant Professor, School of Civil and Construction Engineering, Oregon State University, Corvallis
- 2001 – 2004 Assistant Professor (Senior Research), Department of Civil, Construction, and Environmental Engineering, Oregon State University, Corvallis
- 1999 – 2001 Assistant Research Scientist, Cooperative Institute for Limnology and Ecosystems Research, University of Michigan, Ann Arbor
- 1999 – 2001 Research Engineer, Veridian Systems Division (formerly ERIM International), Ann Arbor, MI

Education

- Ph.D., Civil Engineering, University of Delaware, 1999.
Thesis: *Rip current dynamics and nearshore circulation* (Advisor: R.A. Dalrymple)
- M.C.E., Civil Engineering, University of Delaware, 1996.
Thesis: *The measurement and analysis of wave groups in the surf zone* (Advisor: R.A. Dalrymple)
- B.S., Earth & Atmospheric Sciences (Geophysics), Purdue University, 1993.

Awards & Outreach

- 2007 Editors' Citation for Excellence in Refereeing, *JGR-Oceans* (cited by Jim Kirby)
- 2002 Editors' Citation for Excellence in Refereeing, *JGR-Oceans* (cited by John Klinck)
- Awarded National Research Council Research Associateship, 1999 (declined)
- E.C. Davis Fellowship, University of Delaware, Sept. 1993 – Aug. 1994
- Interviewed: *Environmental Monitor* ("New model uses off-the-shelf technology to forecast rip currents", March 19, 2013); KEZI news Eugene ("Anniversary of 2011 Japanese tsunami", March 11, 2013); *Taking Risks, Making Commitments* ("Exploring Beach Recovery", DVD and booklet, Oregon Sea Grant, 2007); *The Daily Barometer* ("World's largest wave basin built at OSU", Sept. 30, 2003).
- Guest speaker: *Science, Music & Marshmallows*, Mary's Peak Interpretive Center, Aug. 5, 2009.
Instructor: *Tsunamis & Coastal Engineering Learning Module*, Corvallis Montessori School, Aug. 9, 2013.

Professional Service

- Session Convener: 12th *International Coastal Symposium* 2013; Program Committee Member Atmospheric and Oceanic Propagation of Electromagnetic Waves IV, *SPIE International Symposium* (Photonics West), 2010; Co-Convener and Chair, Nearshore and Shelf Processes Special Session in Honor of Dr. Thomas Kinder, *AGU Fall Meeting*, 2001; Session Chair: *Waves 2001, Coastal*

Dynamics 2005, Ocean Science in Support of Marine Renewable Energy, *EGU General Assembly 2011*, *ICCE 2012*.

- Member, Coastal & Estuarine Hydroscience Committee, ASCE 2006-present; Secretary, Ocean Marine and Coastal Engineering Division, ASEE 2006-2009; Member, Science Advisory Team—Columbia River Mouth Beneficial Projects (Lower Columbia River Solutions Group), 2008-present.
- Reviewer: AGU (*Geophys. Res. Letters*, *J. Geophysical Research – Oceans*), ASCE(*J. Eng. Mech.*, *J. Wtrwy.*, *Port, Coastal, Ocean Eng.*), ASEE *Conference Proceedings*, *Coastal Engineering*, *Coastal Engineering Journal*, *Continental Shelf Research*, *Estuarine Coastal and Shelf Science*, *IEEE (Geosci. and Remote Sensing Lett.*, *IGARSS 2008*, *Trans. Geosci. and Remote Sensing*), *Inverse Problems in Sci. & Eng.*, *J. Atmos. & Ocean. Tech.*, *J. Civil Eng. (KSCE)*, *J. Coastal Res.*, *J. Fluid Mechanics*, *J. Hydraulic Research*, *J. Hydro-environment Research*, *J. Marine Geophysical Researches*, *J. Zhejiang Univ.-Science A*, *Ocean Eng.*, *Ocean Dynamics*, *Ocean Modelling*, *Physics Letters A*, *Sedimentary Geology*, *Sensors*, *Wave Motion*, and J. Wiley & Sons.
- Proposal reviewer: The National Science Foundation (Physical Oceanography, CAREER, MRI), Sea Grant (California, Delaware, Maryland, Texas), Natural Environment Research Council (UK), Research Council of Norway, USACE-ERDC, Canadian Foundation for Innovation.
- CRAB-Driving Certification, USACE Field Research Facility, Duck NC, 09/15/2010.
- Society memberships: American Geophysical Union 1996-present, American Society of Civil Engineers 2005-present, American Society of Engineering Education 2001-2010, Association of Coastal Engineers 2002-present, Coasts Oceans Ports and Rivers Institute 2002-present, *IEEE* 2010-present.

Refereed Journal Publications

1. Chen, Q., Dalrymple, R.A., Kirby, J.T., Kennedy, A.B., and M.C. Haller, Boussinesq modeling of a rip current system, *J. Geophys. Res.*, 104 (C9), 20,617—20,637, 1999.
2. Haller, M.C., Putrevu, U., Oltman-Shay, J., and R.A. Dalrymple, Wave group forcing of low frequency surf zone motion, *Coastal Engineering Journal*, Vol. 41, No. 2, 121-136, 1999.
3. Haller, M.C. and R.A. Dalrymple, Rip current instabilities, *J. Fluid Mech.*, 433, 161-192, 2001.
4. Haller, M.C., R.A. Dalrymple, and I.A. Svendsen, Experimental study of nearshore dynamics on a barred beach with rip channels, *J. Geophys. Res.*, 107 (C6), 3061, doi:10.1029/2001JC000955, 2002.
5. Haller, M.C. and D.R. Lyzenga, Comparison of radar and video observations of shallow water breaking waves, *IEEE Trans. Geosci. Remote Sens.*, vol. 41, no. 4, pp. 832—844, Apr. 2003.
6. Haas, K.A., I.A. Svendsen, M.C. Haller, and Q. Zhao, Quasi 3-D modeling of rip current systems, *J. Geophys. Res.*, 108 (C7), 3217, doi:10.1029/2002JC001355, 2003.
7. Suh, K.-D., T.-H. Jung, and M.C. Haller, Long waves propagating over a circular bowl pit, *Wave Motion*, 42, 143—154, 2005.
8. Haller, M.C. and H.T. Özkan-Haller, Waves on unsteady currents, *Physics of Fluids*, **19**, 126601, 2007. (See also Publisher's Note: *Physics of Fluids*, **20**, 039901, 2008).
9. Catalán, P.A. and M.C. Haller, Remote sensing of breaking wave phase speeds with application to non-linear depth inversions, *Coastal Engineering*, **55**, 93—111, 2008.
10. Michalsen, D., M.C. Haller, and K.-D. Suh, Wave reflection from nearshore depressions, *J. Waterway, Port, Coastal, and Ocean Engineering*, 134(1), 1-11, 2008.
11. Plant, N.G., K.T. Holland, and M.C. Haller, Ocean wavenumber estimation from wave-resolving time series imagery, *IEEE Trans. Geosci. Remote Sens.*, vol. 46, pp. 2644—2658, Sept. 2008.
12. van Dongeren, A., N. Plant, A. Cohen, D. Roelvink, M.C. Haller, and P. Catalán, Beach Wizard: Nearshore bathymetry estimation through assimilation of model computations and remote observations, *Coastal Engineering*, **55**, 1016—1027, 2008.

13. Haller, M. C., and P. A. Catalán, Remote sensing of wave roller lengths in the laboratory, *J. Geophys. Res.*, 114, C07022, doi:10.1029/2008JC005185, 2009.
14. Lee, C., J.-S. Jung, and M.C. Haller, Asymmetry in directional spreading function of random waves due to refraction, *J. Waterway, Port, Coastal, and Ocean Engineering*, 136(1), 1-9, 2010.
15. Catalán, P.A., M.C. Haller, R.A. Holman, and W.J. Plant, Optical and microwave detection of wave breaking in the surf zone, *IEEE Trans. Geosci. Remote Sens.*, vol. 49, no. 6, pp. 1879—1893, Jun. 2011.
16. Holman, R.A. and M.C. Haller, Remote sensing of the nearshore, *Annual Review of Marine Science*, 5:95—113, 2013.
17. Haller, M. C., D. Honegger, and P. A. Catalán, Rip current observations via marine radar, *J. Waterway, Port, Coastal, and Ocean Engineering*, doi: 10.1061/(ASCE)WW.1943-5460.0000229, to appear March, 2014.
18. Wilson, G., H.T. Özkan-Haller, R. Holman, M.C. Haller, and D. Honegger, Surf zone bathymetry and circulation predictions via data assimilation of remote sensing observations, accepted to *J. Geophys. Res.*, Feb. 2014.
19. Catalán, P.A., M.C. Haller, and W.J. Plant, Microwave backscattering from surf zone waves, submitted to *J. Geophys. Res.*, Jan. 2014.

Published Discussions

1. Haller, M.C. and P.A. Catalán, Discussion of “A simple method to determine breaker height and depth for different deepwater wave height/length ratios and sea floor slopes”, by J.P. Le Roux [Coastal Engineering 54 (2007) 271-277], *Coastal Engineering*, **55**, 181-184, 2008.
2. Haller, M.C. and P.A. Catalán, Response to reply by J.P. Le Roux, *Coastal Engineering*, **55**, 820-822, 2008.
3. Haller, M. and P. Catalán, Detecting breaking ocean waves through microwave scattering, *SPIE Newsroom*, doi: 10.1117/2.1201006.003015, June 30, 2010.

Published Conference Proceedings

1. Haller, M.C. and R.A. Dalrymple, Looking for wave groups in the surf zone, *Coastal Dynamics '95: Proceedings*, pp.81-92, Gdynia, Poland, 1995.
2. Haller, M.C., R.A. Dalrymple, and I.A. Svendsen, Rip channels and nearshore circulation, *Coastal Dynamics '97: Proceedings*, pp.594-603, Plymouth, U.K., 1997.
3. Haller, M.C., R.A. Dalrymple, and I.A. Svendsen, Experimental modeling of a rip current system, *Waves 1997: Proceedings*, pp.750-764, Virginia Beach, VA, 1997.
4. Haas, K.A., I.A. Svendsen, and M.C. Haller, Numerical modeling of nearshore circulation on a barred beach with rip channels, *Coastal Engineering 1998: Proc. of 26th Intl. Conf.*, ASCE, Copenhagen, Denmark, pp.801—814, 1998.
5. Haller, M.C., U. Putrevu, J. Oltman-Shay, and R.A. Dalrymple, Low frequency surf zone response to wave groups., *Coastal Engineering 1998: Proc. of 26th Intl. Conf.*, ASCE, Copenhagen, Denmark, pp.1124—1137, 1998.
6. Haller, M.C. and D.R. Lyzenga, Remote sensing of shallow water breaking waves, *Proceedings of the Fourth International Symposium Waves 2001*, ASCE, San Francisco, CA, pp. 241—250, 2001.
7. Haller, M.C. and H.T. Özkan-Haller, Wave breaking and rip current circulation, *Coastal Engineering 2002: Proc. of 28th Intl. Conf.*, ASCE, Cardiff, Wales, pp.705—717, 2002.

8. Suh, K.D., T.H. Jung, and M.C. Haller, Analytic solution for transformation of long waves propagating over a circular bowl pit, *Proceedings of the Korean Society of Civil Engineering* (in Korean), (CD-ROM), Kangwon-do, Korea, 2004.
9. Catalán, P. and M.C. Haller, Nonlinear phase speeds and depth inversion, *Proceedings of Coastal Dynamics 2005* (CD-ROM), Barcelona, Spain, ASCE, 2005.
10. Haller, M.C. and P. Catalán, Measurement of shallow water breaking wave rollers, *Proceedings of Coastal Dynamics 2005* (CD-ROM), Barcelona, Spain, ASCE, 2005.
11. Haller, M.C. and A. Baptista, NANOOS-Pilot: A collection of ocean observing tools for improving ocean safety and coastal design, Paper 2006-2316, *2006 ASEE Annual Conference Proceedings* (peer reviewed), Chicago, IL, 2006.
12. Cobo, P.T., J.T. Kirby, M.C. Haller, H.T. Özkan-Haller, and J. Magalen, Model simulations of bar evolution on a large-scale laboratory beach, *Proceedings of Coastal Engineering: 30th Intl. Conf.*, ASCE, San Diego, CA, pp. 2566—2578, 2006.
13. Cohen, A., A. van Dongeren, D. Roelvink, N. Plant, S. Aarninkhov, M. Haller, and P. Catalan, Nowcasting of coastal processes through assimilation of model computations and remote observations, *Proceedings of Coastal Engineering: 30th Intl. Conf.*, ASCE, San Diego, CA, pp. 3207—3219, 2006.
14. Kirby, J.T., H.T. Özkan-Haller, and M.C. Haller, Seiching in a large wave flume, *Proceedings of Coastal Engineering: 30th Intl. Conf.*, ASCE, San Diego, CA, pp.1159—1171, 2006.
15. Maddux, T.B., E.A. Cowen, D.L. Foster, M.C. Haller, and T.P. Stanton, The Cross-Shore Sediment Transport Experiment (CROSSTEX), *Proceedings of Coastal Engineering: 30th Intl. Conf.*, ASCE, San Diego, CA, pp. 2547—2559, 2006.
16. Dalon, M., M.C. Haller, and J. Allan, Morphological characteristics of rip current embayments on the Oregon coast, *Proceedings of Coastal Sediments '07*, ASCE, pp. 2137—2150, 2007.
17. Guannel, G., H. T. Özkan-Haller, M.C. Haller, and J.T. Kirby, Influence of velocity moments on sand bar movement during CROSSTEX, *Proceedings of Coastal Sediments '07*, ASCE, pp. 28-41, 2007.
18. Lee, C., M.C. Haller, and J.-S. Jung, Asymmetry in directional distribution due to refraction of real sea waves, *Proc. of Coastal and Ocean Engineering in Korea*, Mokpo, Korea, pp. 176-179, 2008.
19. Catalán, P., M. Haller, R. Holman, and W. Plant, Surf zone breaking wave identification using marine radar, *Proceedings of Coastal Engineering: 31st Intl. Conf.*, ASCE, Hamburg, Germany, pp. 60-72, 2008.
20. Guannel, G., H. T. Özkan-Haller, and M.C. Haller, Modeling undertow over a barred laboratory beach, *Proceedings of Coastal Engineering: 31st Intl. Conf.*, ASCE, Hamburg, Germany, pp. 940—949, 2008.
21. Shi, F., J.T. Kirby, M. Haller, and P. Catalán, Modeling of surf zone bubbles using a multiphase VOF model, *Proceedings of Coastal Engineering: 31st Intl. Conf.*, ASCE, Hamburg, Germany, pp. 157—169, 2008.
22. Lee, C., J.-S. Jung, and M.C. Haller, Asymmetry in directional spreading function of sea waves due to refraction, *Proc. of 28th Intl. Conf. on Ocean, Offshore and Arctic Eng.* (peer reviewed), ASME, Honolulu, Paper No. OMAE2009-79632, 2009.
23. Haller, M.C., (Invited Paper) Review of selected oceanic EM/EO scattering problems, *Proc. SPIE* Vol. 7588, Paper No. 7588-11, 2010.
24. Hovland, J., R. Paasch, and M. Haller, Characterizing dangerous waves for ocean wave energy converter survivability, *Proc. of 29th Intl. Conf. on Ocean, Offshore and Arctic Eng.* (peer reviewed), ASME, Shanghai, Paper No. OMAE2010-20421, 2010.

25. Haller, M.C., A. Porter, P. Lenee-Bluhm, K. Rhinefrank, E. Hammagren, T. Özkan-Haller, D. Newborn, Laboratory observations of waves in the vicinity of WEC-arrays, *Proceedings of European Wave and Tidal Energy Conference (EWTEC 2011)* (peer reviewed), Paper No.419, 2011.
26. Porter, A.K., M.C. Haller, and P. Lenee-Bluhm, Laboratory observations and numerical modeling of the effects of an array of wave energy converters, in *Proceedings of 33rd ICCE 2012*, Santander, Spain, doi:10.9753/icce.v33.management.67, 2012.
27. Flores, R.P., P.A. Catalán, and M.C. Haller, Incorporating remotely-sensed roller properties into set-up estimations for random wave conditions, to appear in: *Proceedings of Coastal Dynamics 2013*, Nantes, France, 2013.
28. O’Dea, A.M. and M.C. Haller, Analysis of the impacts of wave energy converter arrays on the nearshore wave climate, to appear in: *Proceedings of the 2nd Marine Energy Technology Symposium (METS2014)* (peer-reviewed, refereed), Seattle, WA, April 2014.

Technical Reports

- Haller, M.C. and R.A. Dalrymple, Rip current dynamics and nearshore circulation, Center for Applied Coastal Research, *Res. Rep. CACR-99-05*, Center for Applied Coastal Research, University of Delaware, (also *Ph.D. Thesis*), 1999.
- Haller, M.C., R.A. Dalrymple, and I.A. Svendsen, Experiments on rip currents and nearshore circulation: Data report, *Res. Rep. CACR-00-04*, Center for Applied Coastal Research, University of Delaware, 2000.
- Özkan-Haller, H.T., J.C. Allan, J.A. Barth, M.C. Haller, R.A. Holman, and P. Ruggiero, Sediment Transport Study: Baseline observations and modeling for the Reedsport wave energy site, for *Oregon Wave Energy Trust* (Portland, OR), <http://hdl.handle.net/1957/15694>, 36 pp., Dec. 2009.
- Rhinefrank, K., M. Haller, T. Ozkan-Haller, A. Porter, C. McNatt, P. Lenee-Bluhm, and E. Schumacher, Benchmark Modeling of the Near-Field and Far-Field Wave Effects of Wave Energy Arrays, *Columbia Power Technologies Final Report*, DE-EE0002658, U.S. Dept. of Energy, www.osti.gov/servlets/purl/1060889/, 2013.
- Haller, M.C. & T. Özkan-Haller, Physical-Environmental Effects of Wave and Offshore Wind Energy Extraction: A Synthesis of Recent Oceanographic Research, in: Boehlert, G., C. Braby, A. S. Bull, M. E. Helix, S. Henkel, P. Klarin, and D. Schroeder, eds., *Oregon Marine Renewable Energy Environmental Science Conference Proceedings*, U.S. Department of the Interior, Bureau of Ocean Energy Management, Cooperative Agreement with Oregon State University M12AC00012, *OCS Report BOEM 2013-0113*, <http://hdl.handle.net/1957/36650>, 2013.

Abstract Proceedings

- Haller, M.C., R.A. Dalrymple, and I.A. Svendsen, Experimental investigation of nearshore circulation in the presence of rip channels, *Trans. Amer. Geophys. Union Fall Meeting, EOS suppl.*, p.394, 1996.
- Haller, M.C and R.A. Dalrymple, Rip current instabilities. *Trans. Amer. Geophys. Union Fall Meeting, EOS suppl.*, p.401, 1998.
- Haller, M.C., Forcing of nearshore currents on a longshore varying bathymetry, *Trans. Amer. Geophys. Union Fall Meeting, EOS suppl.*, p.512, San Francisco, CA, 1999.
- Haller, M.C and D.R. Lyzenga, Radar backscatter from surf zone waves, *Trans. Amer. Geophys. Union Fall Meeting, EOS suppl.*, F610, San Francisco, CA, 2000.
- Catalan, P.A., E. Crawford, and M.C. Haller, Depth inversion using nonlinear dispersion equation and hybrid measurements, *AGU Ocean Sciences Meeting*, Portland, OR, 2004.
- Michalsen, D. and M.C. Haller, Shoreline response near steep bathymetric features, *AGU Ocean Sciences Meeting*, Portland, OR, 2004.

- Baptista, A., Y. Zhang, P. Turner, M. Zulauf, G. Kaminsky, B. Grantham, J. Allan, J. Newton, A. Devol, P. MacCready, S. Rumrill, M. Haller, T. Ozkan-Haller, G. Gelfenbaum, P. Ruggiero, NANOOS-Pilot technologies: a national role?, *AGU Ocean Sciences Meeting*, Honolulu, HI, 2006.
- Catalán, P.A. and M.C. Haller, Comparison of shallow water wave breaking models to remote sensing data, *AGU Ocean Sciences Meeting*, Honolulu, HI, 2006.
- Guannel, G., H.T. Özkan-Haller, J. Magalen, M.C. Haller, J.T. Kirby, and P.T. Cobo, Evaluation of boundary layer models in the mobilization and onshore transport of sediments, *AGU Ocean Sciences Meeting*, Honolulu, HI, 2006.
- Maddux, T., E. Cowen, D. Foster, M. Haller, T. Stanton, CROSSTEX: A Large-Scale Laboratory Study of Cross-Shore Sediment Transport, *AGU Ocean Sciences Meeting*, Honolulu, HI, 2006.
- Magalen, J., M.C. Haller, H.T. Özkan-Haller, J.T. Kirby, G. Guannel, and P.T. Cobo, Testing energetics-based models for onshore sediment transport, *AGU Ocean Sciences Meeting*, Honolulu, HI, 2006.
- Miller, J., M. Haller, and J. Magalen, Design of large scale experiments on onshore bar migration, *AGU Ocean Sciences Meeting*, Honolulu, HI, 2006.
- Andes, L., H.T. Özkan-Haller, M.C. Haller, and J. Brodersen, Wave-current interaction at the mouth of the Columbia River, *EOS Trans. AGU*, 87(52), Fall Meet. Suppl., 2006.
- Guannel, G., H.T. Özkan-Haller, and M.C. Haller, Bar behavior and sediment movement during CROSSTEX, *EOS Trans. AGU*, 87(52), Fall Meet. Suppl., Abstract OS22B-07, 2006.
- Haller, M.C. and P.A. Catalán, Remote Sensing Characteristics of Wave Breaking Rollers, *AGU Fall Meeting*, San Francisco, CA, 2006.
- Shi, F., J.T. Kirby, M.C. Haller, and P. Catalán, Numerical study on surfzone air bubbles using a multiphase VOF model, *AGU Ocean Sciences Meeting*, Orlando, FL 2008.
- van Dongeren, A.R., N. Plant, J.A. Roelvink, M.C. Haller, A.B. Cohen, and P. Catalán, Beach Wizard: Bathymetry estimation by remote sensing, *AGU Ocean Sciences Meeting*, Orlando, FL 2008.
- Catalán, P.A. and M.C. Haller, Remote sensing of roller lengths and dissipation for irregular waves, *AGU Ocean Sciences Meeting*, Portland, OR, 2010.
- Honegger, D.A., S. Meskill, and M.C. Haller, X-band radar observations of waves near a tidal inlet and comparisons to the SWAN model, *AGU Ocean Sciences Meeting*, Portland, OR, 2010.
- Honegger, D.A., M.C. Haller, J.A. Lerczak, and P. McEnaney, Concurrent remote and in situ wave and current observations at a tidal inlet, *AGU Fall Meeting*, San Francisco, CA, 2010.
- Haller, M.C., A. Porter, P. Lenee-Bluhm, K. Rhinefrank, D. Newborn, and T. Özkan-Haller, Experiments on the near-field and far-field wave effects of WEC arrays, *EGU General Assembly*, Vienna, 2011.
- Honegger, D.A., M.C. Haller, J.A. Lerczak, C. Teague, and H. Aguilar, Remote observations of surface current structure at an engineered tidal inlet mouth, *AGU Ocean Sciences Meeting*, Salt Lake City, 2012.
- Einolf, A.E., J.A. Lerczak, and M. Haller, Tidally-dependent stratification, shear and secondary currents in Yaquina Bay estuary, Oregon, *AGU Ocean Sciences Meeting*, Salt Lake City, 2012.
- Flores, R.P., P.A. Catalán, J.P. Andrade, and M.C. Haller, Remote sensing of roller lengths: Application to the modeling of wave evolution, poster presentation, *ICCE 2012*, Santander, 2012.
- Diaz Mendez, G. M., M. C. Haller, R. Pittman, G. Garcia Medina. Monitoreo de oleaje cerca de la costa utilizando radares de navegacion, *Memorias de la Reunion Anual de la Union Geofisica Mexicana*, GEOS 32(1), pp 232, Puerto Vallarta, Mexico, October 2012.
- Diaz Mendez, G., R. Pittman, P.A. Catalán, D.A. Honegger; M.C. Haller, Spatial distribution and temporal evolution of sea surface hydrodynamics estimated through a coherent X-band marine radar, *AGU Fall Meeting*, San Francisco, CA, 2012.
- Haller, M.C., D.A. Honegger, and P.A. Catalán, Radar observations of rip currents (Duck, NC), *AGU Fall Meeting*, San Francisco, CA, 2012.

- Honegger, D.A., M.C. Haller, Díaz Mendez, G., Pittman, G., and P. Catalán, A synopsis of X-band radar-derived results from New River Inlet, NC: Wave transformation, bathymetry, tidal currents and plumes, *AGU Fall Meeting (winner Outstanding Student Paper Award)*, San Francisco, CA, 2012.
- Jessup, A., R.A. Holman, C. Chickadel, S. Elgar, G. Farquharson, M.C. Haller, A.L. Kurapov, H.T. Özkan-Haller, B. Raubenheimer, and J.M. Thomson, DARLA: Data Assimilation and Remote Sensing for Littoral Applications, *AGU Fall Meeting*, San Francisco, CA, 2012.
- Phaksopa, J. and M.C. Haller, Analysis of bubble plume spacing produced by regular breaking waves, *AGU Fall Meeting*, San Francisco, CA, 2012.
- Black, C. and M.C. Haller, Analysis of waves in the near-field of wave energy converter arrays through stereo video, Abstract: OS11C-1657, *AGU Fall Meeting*, San Francisco, CA, 2013.
- *INVITED*: Haller, M.C., A review of studies on the nearshore impact of wave energy arrays: What have we learned and what is still needed?, Abstract: OS13E-03, *AGU Fall Meeting*, San Francisco, CA, 2013.
- O’Dea, A. and M.C. Haller, Analysis of the impacts of Wave Energy Converter arrays on the nearshore wave climate in the Pacific Northwest, Abstract: OS13E-07, *AGU Fall Meeting*, San Francisco, CA, 2013.
- Diaz Mendez, G.M., M.C. Haller, D.A. Honegger, and R.W. Pittman, Remote sensing observations of wave dissipation, Abstract:17369, *AGU Ocean Sciences Meeting*, Honolulu, 2014.
- Honegger, D.A., M.C. Haller, and G.M. Diaz Mendez, Spring-Summer front observations at the Columbia River Mouth via land-based X-band marine radar, Abstract:17457, *AGU Ocean Sciences Meeting*, Honolulu, 2014.
- Haller, M.C., D.A. Honegger, G. Diaz Mendez, and R. Pittman, Rip currents, tidal jets, and wild frontal features: Some recent observations with X-band marine radar, Abstract:17517, *AGU Ocean Sciences Meeting*, Honolulu, 2014.
- Moghimi, S., G. Wilson, T. Özkan-Haller, M.C. Haller, and G. Farquharson, An effective method for bathymetry estimation of a tidal inlet: The role of wave and current interaction, Abstract:18140, *AGU Ocean Sciences Meeting*, Honolulu, 2014.

Conference & Workshop Presentations

- “Looking for wave groups in the surf zone”, *Coastal Dynamics '95*, Gdynia, Poland, 1995.
- “Experimental investigation of nearshore circulation in the presence of rip channels”, *AGU Fall Meeting*, San Francisco, CA, 1996.
- “Rip channels and nearshore circulation”, *Coastal Dynamics '97*, Plymouth, U.K., 1997.
- “Experimental modeling of a rip current system”, *Waves 1997*, Virginia Beach, VA, 1997.
- “Low frequency surf zone response to wave groups”, *26th Intl. Conf. on Coast. Eng.*, Copenhagen, Denmark, 1998.
- “Rip current instabilities”, *AGU Fall Meeting*, San Francisco, CA, 1998.
- “Forcing of nearshore currents on a longshore varying bathymetry”, *AGU Fall Meeting*, San Francisco, CA, 1999.
- “Remote sensing of shallow water breaking waves”, *Waves 2001*, San Francisco, CA, 2001.
- “Wave breaking and rip current circulation”, *28th Intl. Conf. on Coast. Eng.*, Cardiff, UK, 2002
- *INVITED*: “Rip Currents: An Oregon State Perspective”, NOAA/Sea Grant Technical Workshop, *Rip Current Science: Coordinating Coastal Engineering Research and Forecast Methodologies to Improve Public Safety*, Jacksonville, FL, April 6-7, 2004.
- *INVITED*: “Shallow water wave breaking (a.k.a. radar and Argus)”, *Argus Workshop 2004*, Corvallis, OR, Aug. 4, 2004.
- “Measurement of shallow water breaking wave rollers”, *Coastal Dynamics 2005*, Barcelona, Spain, April, 2005.

- *INVITED*: “Integrated Ocean Observing Systems”, *O.H. Hinsdale Wave Research Laboratory Coastal Symposium and Reunion*, Corvallis, OR, Nov. 19, 2005.
- “NANOOS-Pilot: A collection of ocean observing tools for improving ocean safety and coastal design”, *2006 ASEE Annual Conference*, Chicago, IL, June 20, 2006.
- “Remote Sensing Characteristics of Wave Breaking Rollers”, *AGU Fall Meeting*, San Francisco, CA, 2006.
- “Radar and optical remote sensing of the nearshore”, *ONR Progress Review Meeting*, Seattle, WA, Feb. 28, 2007.
- *INVITED*: “Wave modeling at the MCR w/comparisons to remote sensing data”, *Sediment Trends in SW Washington’s Nearshore Zone*, Lower Columbia Solutions Group, Ilwaco, WA, July 9, 2007.
- “EM Scattering in the surf zone: Observations and Modeling”, *ONR Progress Review Meeting*, Corvallis, OR, June 26, 2008.
- *INVITED*: “Wave measurement methods and data requirements for model validation”, *Wave Amplification / Save Navigation Workshop*, Lower Columbia Solutions Group, Ilwaco, WA, April 27-28, 2009.
- *INVITED*: “Some potential environmental effects of wave energy arrays”, *Wave Energy Roundtable*, Office of U.S. Senator Jeff Merkley, Hatfield Marine Science Center, Newport, OR, May 29, 2009.
- “Scattering mechanisms for surf zone waves”, *Argus Workshop*, Plymouth, UK, July 22, 2009.
- *INVITED*: “Baseline observations and modeling at the Reedsport wave energy site”, *2009 Ocean Renewable Energy Conference IV*, Oregon Wave Energy Trust, Seaside, OR, September 15, 2009.
- *INVITED*: “Review of selected oceanic EM/EO scattering problems”, *SPIE International Symposium (Photonics West)*, San Francisco, CA, Jan. 25, 2010.
- *INVITED*: “Remote Sensing of Breaking Waves”, *Workshop on air-sea interactions under tropical cyclones (hurricanes)*, University of Rhode Island, April 11, 2010.
- *INVITED*: “Remote Sensing of Surf Zone Waves” and “Rip Currents via Marine Radar”, *Sensing the Ocean with Marine Radars (SoMaR-I)*, NURC, Lerici, Italy, May 2-4, 2011.
- “Rip currents via marine radar”, *Argus Workshop*, Corvallis, OR, July 27, 2011.
- “Laboratory observations of waves in the vicinity of WEC-arrays”, *European Wave and Tidal Energy Conference (EWTEC 2011)*, September, 6, 2011.
- “Observations of rip current variability”, *33rd Intl. Conf. on Coast. Eng.*, Santander, Spain, 2012.
- “Planes, Brains, and Autonomous Vehicles: Predicting the nearshore ocean”, *Chief of Naval Operations Strategic Studies Group*, Corvallis, OR, November 5, 2012.
- *INVITED*: “Physical Environmental Effects of Wave and Offshore Wind Energy Extraction: A synthesis of recent oceanographic research”, *Oregon Marine Renewable Energy Environmental Science Conference*, Corvallis, OR, November 28-29, 2012.
- “Radar observations of rip currents (Duck, NC)”, *AGU Fall Meeting*, San Francisco, CA, December 3, 2012.
- “Some results on the modelling of the far-field effects of WEC-Arrays”, *International Coastal Symposium 2013*, Plymouth, U.K., April 9, 2013.
- *INVITED*: “Recent NNMREC Research on the Potential Nearshore Effects of Wave Energy Extraction”, *Oregon Renewable Energy Conference VIII*, Astoria, OR, September 25, 2013.
- *INVITED*: “A review of studies on the nearshore impact of wave energy arrays: What have we learned and what is still needed?”, *AGU Fall Meeting*, San Francisco, CA, December, 9, 2013.

Seminars

- “Experimental Investigation of a Rip Current System”, Center for Applied Coastal Research Seminar Series, University of Delaware, April 29, 1997.
- “Experimental Modeling of a Rip Current System”, Center for Applied Coastal Research Seminar Series, University of Delaware, Nov. 11, 1997.

- “Rip Current Instabilities”, Center for Applied Coastal Research Seminar Series, University of Delaware, Dec. 1, 1998.
- “Comparison of video and remote sensing observations of surf zone waves”, OSU-UBC-UW Joint Student Conference on Hydromechanics, March, 2002.
- “Modeling Wave Breaking in the Presence of Rip Currents”, COE/COAS Brownbag Series, Oregon State University, August, 2002.
- “Integration of Lab and Field in Coastal Engineering Research”, Oregon State University, March 24, 2004.
- "Nearshore remote sensing with X-band radar", Physical Oceanography Seminar Series, COAS, Oregon State University, May 1, 2007.
- “Remote Sensing in the Nearshore: Results and ongoing challenges”, Center for Applied Coastal Research Seminar Series, University of Delaware, September 25, 2007.
- *INVITED*: “Rip Currents: Integrating our knowledge from lab, field, and numerical studies”, Water Resources and Environmental Eng. Graduate Seminar, N.C. State University, December 3, 2007.
- “Remote sensing of surf zone waves”, Coastal Studies Seminar Series, Rosenstiel School of Marine and Atmospheric Science, University of Miami, April 2, 2009.
- “Modeling microwave scattering from breaking waves”, Applied Mathematics Seminar, Oregon State University, April 17, 2009.
- *INVITED*: “Wave observations and modeling at Newport, OR”, Hatfield Marine Science Center, Newport, OR, November 12, 2009.
- *INVITED*: “The Northwest National Marine Renewable Energy Center”, Kwandong University, Korea, Nov. 9, 2010.
- *INVITED*: “Remote sensing of rip currents”, Korean Ocean Research and Development Institute, Korea, Nov. 10, 2010.
- "Nearshore waves, currents and bathymetry - Towards fused sensors and models", joint with R. Holman and G. Wilson, COAS, Oregon State University, February 4, 2011.
- *INVITED*: “Wave Energy Sites: Methods of evaluation and related research” and “Northwest National Marine Renewable Energy Center”, *Taller Internacional Sobre el Estado Actual de la Investigación Científica en Energías Marinas*, Pontificia Universidad Católica de Chile, Santiago, Chile, July 6-7, 2011.
- *INVITED*: “Wave Energy Research at Oregon State University”, Civil Engineering Design Seminar, Boğaziçi University, Istanbul, Turkey, March 16, 2012.

Sponsored Research

- “Sustaining NANOOS, the Pacific Northwest component of the US IOOS”, NOAA, \$6 million (Haller portion \$154,092), 2011-2014.
- “Northwest National Marine Renewable Energy Center” (Co-I), U.S. Department of Energy, \$13,545,481 (Haller portion \$467,578), 2008-2015.
- “Wave Energy Research, Testing, and Demonstration Center” (Co-I), US Department of Energy (Congressionally Directed Project), \$2,331,175 (Haller portion \$48,112), 04/01/2010-03/31/2014.
- “Remote Sensing and Data-Assimilative Modeling in the Littorals”, Co-Investigator, [Data Assimilation and Remote-sensing for Littoral Applications (DARLA)], ONR Multidisciplinary University Research Initiative (MURI), \$7,913,069 (Haller portion \$1,038,000), 2010-2015.

Previous Funding (approximate total completed through 2012 = \$1,720,000)

- “Benchmark modeling of near-field and far-field wave effects of wave energy arrays” (PI), Columbia Power Technologies (DOE FOA-69 Topic 2), \$459,877 (Haller portion, \$269,161), 2010-2012.
- “Experiments of Opportunity in Support of WEC-array Far-field Effects Analysis”, Oregon Wave Energy Trust, 02/02/11-12/31/11, \$21,600.

- “Enhancing the Pacific Northwest Regional Coastal Ocean Observing System (RCOOS) of NANOOS” (Co-I), NOAA, \$10.2 million (Haller portion, \$150,000), 2007-2011.
- “Marine radar wave observations – Columbia River Mouth” (PI), U.S. Army Corps of Engineers, \$40,277, 9/14/2009-9/30/2010.
- “Multi-sensor remote sensing in the nearshore” (PI), Office of Naval Research, Coastal Geosciences, \$169,821, 2008-2010.
- “Baseline observations and modeling for the Reedsport wave energy site” (Co-I), Oregon Wave Energy Trust, \$163,351 (Haller portion \$19,884), April-Dec 2009.
- “Collaborative Proposal: CROSSTEX – An Experimental Study of Onshore Bar Movement” (Co-I), The National Science Foundation, \$155,784, 2004-2009.
- “Remote retrievals of hydrography on mud flats in Denied-Areas” (PI), Arete Associates (in support of Phase II-Enhancement STTR, Office of Naval Research), \$75,000, 2007-09/30/2008.
- “Platform for a Physical/Biological Sampling System for the Nearshore Ocean” (Co-I) w/P. Ruggiero, Menge, Nash, & Rilov, Research Equipment Research Fund, Oregon State University, , \$49,814, 07/01/07-06/30/08.
- “Wind/solar off-grid power system for Wave Radar Imaging Station” (PI), College of Engineering ETIC funds, \$13,683, 2008.
- “Integrating Marine Radar Observations into Nearshore Modeling Systems” (PI), Office of Naval Research, Coastal Geosciences, \$120,919, 2005-2007.
- Oregon Sea Grant: "Investigating the Causes of 'Hot Spot' Beach Erosion" (PI), \$160,995, 2005-2007.
- NOAA: “A Pilot Coastal Ocean Observatory for the Estuaries and Shores of Oregon and Washington”, (PI) A. Baptista (OHSU) et al., \$700,000 (M. Haller PI of OSU portion, \$132,475), 2004-2007.
- Funded Collaborator (Rob Holman - PI), "Secretary of the Navy/Chief of Naval Operations Chairs of Oceanographic Sciences", 1 mm/yr, 2003-2007.
- NSF: “REU-Site: Interdisciplinary Approach to Coastal Processes and Hazard Mitigation” (Co-I), \$287,722, 2003-2006.
- Oregon Sea Grant: "An Experimental Study of Beach Recovery" (Co-I), \$174,674, 2004-2006.
- Oregon Sea Grant: “Project Development Grant: Erosional Hot Spot Modeling” (PI), \$10,000, 2004.
- Office of Naval Research, Coastal Geosciences, “Synoptic Estimates of Waves and Currents via Real-Time Assimilation of In-Situ Observations” (PI), \$78,000, 2002-2004.

Graduate Students Advised (graduation date)

David Honegger	Ph.D., Civil Engineering (expected 2015)
Jitraporn Phaksopa	Ph.D., Civil Engineering (expected 2014)
Colleen Black	M.S., Civil Engineering (expected Jun 2014)
Annika O’Dea	M.S., Civil Engineering (expected Jun. 2014)

Patricio Catalan **Ph.D.**, December 2008; “Microwave Scattering from Surf Zone Waves” (Now at Departamento de Obras Civiles, Universidad Técnica Federico Santa María, Valparaiso, Chile)

Matt Dalon **M.OcE.**, June 2007; Thesis: “Analysis of Rip Current Embayments on the Oregon Coast”, (Now at Ocean and Coastal Consultants, Gibbsboro, NJ)

Jason Magalen **M.OcE.**, June 2006; Thesis: “Laboratory Experiments on Sand Bar Migration with Comparisons to Recent Models”, (Now at Sea Engineering, Portland, OR)

Patricio Catalan **M.OcE.**, June 2005; Thesis: "Hybrid Approach to Estimating Nearshore Bathymetry Using Remote Sensing", (Now at Departamento de Obras Civiles, Universidad Técnica Federico Santa María, Valparaiso, Chile)

Dave Michalsen M.OcE., August 2004; Thesis: “Wave Transformation Over Steep Bathymetric Features”, (Now at U.S. Army Corps of Engineers, Seattle, WA)

Aaron Porter M.S., Sept. 2012; Thesis: “Laboratory observations and numerical modeling of the effects of an array of wave energy converters”, (Now at Coast & Harbor Engineering, Edmond, WA)

Nicholas Brown M.S., Dec. 2010; Project: “Experiments on the Accuracy of a 3D Motion Capture System”, (Now at Ocean Facilities Program, US Navy, Port Hueneme, CA)

Shay Meskill M.S., Dec. 2009; Project: “Applications of Marine Radar Wave Observation Systems”, (Now at Ocean Facilities Program, US Navy Civil Eng Corps)

Daniel Lutz M.S., Dec. 2008; Project: “Design and construction of a real-time ocean mooring at Strawberry Hill”, (Now Executive Officer, Underwater Construction Team ONE, Ocean Facilities Program, US Navy, Virginia Beach, VA.)

J.D. Lentine M.S., June 2006; Project: “Nearshore Applications of Marine Radar”, (Now at USCG Facilities Design & Construction Center, Houston, TX)

Dan Garcia M.S., Sept. 2003; Project: “Effects of Natural and Artificial Reefs at Beverly Beach, OR”, (Now at BNP Paribas international finance group)

Ed Wieland M.S., June 2003; Project: “Assessment of Wave Conditions and Mooring Improvement Design at Coast Guard Station Neah Bay, WA”, (Now at USCG Shore Maintenance Command, Seattle, WA).

Jeane Camelo M.Eng., Dec 2011

Jeff Travis M.Eng., June 2010

Song Gao M.Eng., Dec 2008 (Now at Bureau Veritas, Houston, TX)

Phillip Hamrock M.Eng., Dec 2008 (Now at Ocean Facilities Program, US Navy Civil Eng Corps)

Neil Orlich M.Eng., June 2006 (Now at USCG Air Station Clearwater, Clearwater, FL)

Steven Beadle M.Eng., June 2006 (Now at Washington State Ferries, Seattle, WA)

Other Graduate committees served on (graduation date)

Arash Abbasi (GCR) Ph.D., Electrical Eng., (expected 2013)

Karthikeyan Reddy (GCR) Ph.D., Electrical Eng., (expected 2013)

Chaitanya Ghodke (GCR) Ph.D., Mechanical Eng., (expected 2015)

Peter Banwarth (GCR) Ph.D., Mathematics, (expected)

Lin Li (GCR) Ph.D., Physics, (expected 2015)

Ph.D.: Civil Engineering (Ocean): Sungwon Shin (Dec. 2005)
Joe Long (June 2009)
Greg Guannel (Summer, 2009)
Wenwen Li (Dec. 2012)

Oceanography Chris Chickadel (Summer, 2007)
Kristen Splinter (June 2009)

M.OcE.: Joel Darnell (Aug. 2004), Jamie Lescinski (Dec. 2004), Chris Scott (June 2005), Joe Long (June 2005), Wenwen Li (Dec. 2006), Lisa Andes (June 2007), David Elwood (Aug. 2008), Ravi Challa (Dec. 2010), Jeremy Mull (Dec. 2010), Jeff Oskamp (June 2011), Cameron McNatt (Aug. 2012)

M.S. Civil Eng: Chris Renedo (June 2005), Jason Heering (Sept. 2008), Irene Watts (Sept. 2008), Grady Donathan (Dec. 2008), Gabriel Garcia (Aug. 2012), Hendrik Schoeman (Dec. 2012)

M.S. Mechanical Eng: Justin Hovland (June 2010)

M.S. Oceanography: Jason Killian (Sept. 2007), Brian Nelson (Dec. 2009)

Minor professor: M.S., Civil Engineering (Structures), Jason Beatty (June 2007)
M.S., Mechanical Engineering, Kelley Ruehl (June 2011)

M.Eng. (Civil Eng.): Brandon Cox (Dec. 2006), Javier Moncada (June 2007),
Greg Garnett (Dec. 2007), Kun Liu (June 2011)

Grad Council Rep.: Wiley Thompson (Ph.D., Geosci., June 2008), Robyn Wangberg (Ph.D., Physics,
June 2008), Zachary Wiren (Ph.D., Physics, June 2008), Matt Knudson (Ph.D.,
Mechanical Eng., Dec. 2009), Max Salichon (Ph.D., Mechanical Eng. Dec.
2009), Andrew Hummel (M.S., Nuclear Eng., Dec. 2010), Chao Ma (M.S., Elec.
& Comp. Eng., Sept. 2012), Erica Rode (Ph.D., Mathematics, February 2013),
Joseph Skitka (M.S., Mech. Eng., June 2013)

Undergraduate Advisees

- **(NSF-REU):** Jennifer Miller (2005), Krishna Ersson (2004), Luis Bellon (2003)
- **Computer Science Capstone Proj.** “Development of a Web Interface for Ocean Wave Monitoring at the Mouth of the Columbia River”, Michael Spray, Jaime Burnap, Samuel Yung (2006)
- **Reading & Conference:** Christopher Goins: City of Albany Hydraulic Design Work (2006)

Other Roles

- Supervisor: Postdoctoral Scholars
 - Guillermo Diaz, Nov. 2011—present
- Supervisor: Faculty Research Assistants
 - Randall Pittman, Oct. 2011—present
 - Patrick McEnaney, June 2009—February 2011.
 - Dan Moraru (COAS), Feb. 2008 – June 2008.
 - Justin Brodersen, Dec. 2005-Jan 2007
- Visiting Scholars hosted: Dr. Changhoon Lee (Sejong University), 2006-2007; Dr. Weon Mu Jeong (Korean Ocean Research & Development Institute), 2011.

OSU Service

- Associate School Head, Civil & Construction Engineering, 2009-2011
- College of Engineering Promotion & Tenure Committee, 2013-2014
- College of Engineering Faculty Advisory Committee, 2013
- College of Engineering Graduate Council, 2008-2011 (Chair)
- Coastal & Ocean Eng Program Coordinator, 2003-2010
- CCE Promotion & Tenure Sub-Committee, 2010-2011.
- CCE Faculty Status Committee (non-voting member), 2005-2006
- CCE Accessible Labs Committee, 2012-2013
- CCE Apperson-to-Kearney Space Planning Committee, 2008-2009
- CCE Computing Committee, 2001-2005
- CCE Curriculum Committee, 2004-2005
- CCE Graduate Committee, 2002-2003, 2006-2010 (Chair 2006-2009)
- CCE Scholarship Committee, 2012-2013
- CCE Strategic Planning Committee, 2005-2006

- Search Committee COE Associate Dean for Research and Economic Development, 2012
- Search Committee for CCE Interim Head, 2011
- CCE Search Committee: Geomatics faculty 2013-2014; Water Resources faculty, 2008-2010; WRL Faculty Research Associate, 2003;
- CCE Search Committee for Director of Hinsdale Wave Research Laboratory, 2002; 2013
- Search Committee for Wave Energy Ocean Test Facility Manager, 2011
- Developed proposal to attain Western Regional Graduate Program status for the OSU Ocean Engineering Program. Awarded WRGP status May, 2002
- Developed "10 year Strategic Plan for Ocean Engineering Program", presented to CCEE Advisory Board, Fall 2001

Classes Taught

- CE 313 Hydraulic Engineering, W(02-05,08-09), S13
- CE 411/511 Ocean Engineering, F11
- CE 415/515 Design of Ports and Harbors, S(02)
- CE 415/515 Coastal Infrastructure, S(04,06)
- CE 507 CCEE Graduate Seminar, W(07-11), S(09-11)
- CE 630 (previously 641) Ocean Engineering Wave Mechanics I, F(01,02,04,05,07,09,12,13), W(04)
- CE 631 Ocean Engineering Wave Mechanics II, W07
- CE 643 Coastal Engineering, F(02,13), S(05,07,09), W11.
- CEM 311 Hydraulics, W13
- OC 664 Nearshore Sediment Transport, S04 (50%, w/R. Holman).
- Developed CAT II proposals for CE 630, 631, 634, and 635 (2007-2008)

Invited Workshop Participation

- Invited Scientist, *Sand Engine Projects*, Deltares, The Netherlands, Sept. 2-6, 2012.
- Invited Scientist, *Taller Internacional Sobre el Estado Actual de la Investigación Científica en Energías Marinas*, Pontificia Universidad Católica de Chile, Santiago, Chile, July 6-7, 2011.
- Invited Scientist, *Sensing the Ocean with Marine Radars (SoMaR-1)*, NURC, Lerici, Italy, May 2-4, 2011.
- Invited Scientist, *Alliance for Coastal Technologies: Waves Protocol Development Workshop*, University of South Florida, Feb. 23-25, 2011.
- Invited Scientist, *Workshop on air-sea interactions under tropical cyclones (hurricanes)*, University of Rhode Island, April 11, 2010.
- Invited Scientist, *Columbia River Mouth Beneficial Use Projects Science Advisory Team Meeting*, Lower Columbia River Solutions Group, Portland, OR, April 24, 2008.
- Invited Scientist, *Sediment Trends in SW Washington's Nearshore Zone*, Lower Columbia Solutions Group, Ilwaco, WA, July 9-10, 2007.
- Invited Scientist, *Alliance for Coastal Technologies: Wave Sensor Technologies Workshop*, University of South Florida, March 7-9, 2007.
- Invited Scientist, *Motril Workshop: Coastal Engineering Challenges for the Third Millennium*, Universidad De Granada, Motril (Granada), Spain, Nov. 16-17, 2005.
- Invited Scientist, *Scientific Workshop to Inform the Columbia River Nearshore Beneficial Use Project*, Lower Columbia Solutions Group, Portland, Oregon, May 2-3, 2005.
- Invited Scientist, *Rip Current Science: Coordinating Coastal Engineering Research and Forecast Methodologies to Improve Public Safety*, NOAA/Sea Grant Technical Workshop, Jacksonville, FL, April 6-7, 2004.

Other Workshop Participation

- “Finding your voice: Effective Science Communication”, *COMPASS*, AGU Fall Meeting, San Francisco, CA, December 2, 2012.
- *Wave Energy Conversion Array Network (WECAN) 5th Annual Meeting*, Imperial College London, May 14, 2012.
- *Smoothed Particle Hydrodynamics*, University of Manchester, England, February 2-3, 2012.
- *Argus Workshop*, Corvallis, OR, July 25-28, 2011.
- *COSEE/SMILE Scientist & Educator Workshop*, Oregon State University, January 26-28, 2011.
- *ASCE National Civil Engineering Department Heads Conference*, Carnegie Mellon University, May 26-27, 2010.
- *Journey Into Leadership*, Training and Professional Development, OSU, Dec 2009-April 2010.
- *Argus Workshop*, University of Plymouth, UK, July 22-24, 2009.
- “Communicating Science”, AAAS-NSF, Corvallis, OR, April 30, 2009.
- “Engaging Students Through Inquiry-based Cooperative Learning”, Center for Teaching and Learning, OSU, Dec 2008.
- ONR Progress Review Meeting, Corvallis, OR, June 24-26, 2008.
- “Teaching With Writing” Brownbag Lunch, Center for Teaching and Learning, OSU, May 2008.
- *NSF-CBMS Conference on Inverse Scattering for Radar Imaging*, University of Texas-Arlington, May 27-31, 2008.
- *Oregon Sea Grant Science Workshop*, OSU, Jan. 14, 2008.
- *Argus Workshop*, Corvallis, OR, July 30-Aug. 3, 2007.
- *OSU Climate Change Initiative Meeting* (Coastal Impacts sub-group), June 14-15, 2007.
- ONR Progress Review Meeting, Seattle, WA, Feb. 28, 2007.
- ONR-Beach Wizard Workshop, Alexandria, VA, Nov. 2-3, 2006.
- “Improving Graduate Writing Workshop” (Writing Center) and “Effective Use of Collaborative Learning in the Classroom” (Center for Teaching and Learning), OSU, April, 2006.
- ONR-Beach Wizard Workshop, Ypsilanti, Michigan, Oct. 14-15, 2005.
- *NANOOS-Pilot Stakeholders Workshop*, Coos Bay, OR, April 29, 2005
- *Argus Workshop*, Corvallis, OR, Aug. 2-6, 2004.
- Northwest Association of Networked Ocean Observing Systems (NANOOS), *Governance Meeting*, Beaverton, OR, May 5-7, 2004.
- Career Development Workshop (*Share the Future IV, SUCCEED*), Tempe, AZ, March 18, 2003.
- *ASCE ExCEED Teaching Workshop*, Washington D.C, Nov. 2-3, 2002.
- *Summer School on Data Assimilation and Inverse Modeling*, COAS, OSU, Corvallis, Aug., 2002.
- *Workshop on Wave Turbulence*, Cornell University, Fall, 1999.