

Jim Thomson
Applied Physics Laboratory
Civil & Environmental Engineering
University of Washington
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Education

- PhD, Physical Oceanography, Massachusetts Institute of Technology (2006),
Joint Program with the Woods Hole Oceanographic Institution.
- BA, Physics, Middlebury College, Magna Cum Laude (2000).

Experience

- Sr Principal Oceanographer, Applied Physics Lab., U. of Washington (2017-present).
- Associate Professor, Civil & Environ. Eng., U. of Washington (2014-present).
- Adjunct Associate Professor, Mechanical Eng., U. of Washington (2014-present).
- Principal Oceanographer, Applied Physics Lab., U. of Washington (2011-2017).
- Adjunct Assistant Professor, Mechanical Eng., U. of Washington (2012-2014).
- Assistant Professor, Civil & Environ. Eng., U. of Washington (2009-2014).
- Oceanographer, Applied Physics Lab., U. of Washington (2006-2010).
- Postdoctoral Investigator, Woods Hole Oceanographic Institution (2006).
- Graduate Research Assistant, Woods Hole Oceanographic Institution (2001-2006).

Research Areas

- Ocean surface waves and turbulence
- Marine renewable energy (tidal and wave)
- Ocean instrumentation

Recognition

- Innovations Award, Environmental Council of the States (2015)
 - Ferry-based monitoring team led by WA Dept of Ecology
- APL Science & Engineering Award (2013).
- ONR Young Investigator Program (2007).
- Outstanding Paper Award, Ocean Sciences Meeting (2006).
- Gould Research Prize, Middlebury College (2000).
- Phi Beta Kappa (2000).

Certification

- US Coast Guard Captain's License, 100 ton coastal (1996-present).
- SCUBA diver (1991-present), American Academy of Underwater Sciences research diver (2001-present), Master diver (2006-present).
- US Security Clearance (2009-present).

Teaching

- CEE 347, Fluid Mechanics
- CEE 473 / CEWA 573, Coastal Engineering / Water Wave Mechanics Engineers

Peer-reviewed articles

- Thomson, J., J. Girton, R. Jha, A. Trapani, Measurements of Directional Wave Spectra and Wind Stress from a Wave Glider Autonomous Surface Vehicle *J. Atmos. & Ocean. Tech.*, (accepted).
- Cheng et al, Calibrating a viscoelastic sea ice model for wave propagation in the Arctic fall marginal ice zone, *J. Geophys. Res.*, **122** (2017).
- Brown, A., J. Thomson, and C. Rusch, Hydrodynamic Coefficients of Heave Plates, with Application to Wave Energy Conversion, *J. Oceanic Eng.*, **99** (2017).
- Guerra, M., J. Thomson, R. Cienfuegos, and L. Suarez, Tidal Energy Resource Characterization in Chacao Channel, Chile, *International Journal of Marine Energy*, **20** (2017).
- Lee, C., and J. Thomson, An Autonomous Approach to Observing the Seasonal Ice Zone, *Oceanography Magazine*, **30** (2017).
- Thomson, J. and J. Girton, Sustained Measurements of Southern Ocean Air-Sea Coupling from a Wave Glider Autonomous Surface Vehicle, *Oceanography Magazine*, **30** (2017).
- Benetazzo, A., F. Ardhuin, F. Bergamasco, L. Cavaleri, P. V. Guimarães, M. Schwendeman, M. Sclavo, J. Thomson, and A. Torsello, On the shape and likelihood of oceanic rogue waves, *Scientific Reports*, **7** (2017).
- Guerra, M. and J. Thomson, Turbulence Measurements from 5-beam Acoustic Doppler Current Profilers, *J. Atmos. & Ocean. Tech.*, **34** (2017).
- Harding, S., L. Kilcher, and J. Thomson, Turbulence Measurements from Compliant Moorings - Part I: Motion Characterization, *J. Atmos. & Ocean. Tech.*, **34** (2017).
- Kilcher, L. Harding, S., and J. Thomson, Turbulence Measurements from Compliant Moorings - Part II: Motion Correction, *J. Atmos. & Ocean. Tech.*, **34** (2017).
- Deppe, W., J. Thomson, B. Poloagye, and C. Krembs, Predicting Deep Water Intrusions to Puget Sound, WA (USA), and the Seasonal Modulation of Dissolved Oxygen, *Estuaries and Coasts*, (2017).
- Thomson, J., S. Ackley, H. H. Shen, and W. E. Rogers, The balance of ice, waves, and winds in the Arctic autumn, *Eos*, **98** (2017).
- Zippel, S. and J. Thomson, Surface wave breaking over sheared currents: observations from the Mouth of the Columbia River, *J. Geophys. Res.*, **122** (2017).
- Schwendeman, M., and J. Thomson, Sharp-crested Breaking Surface Waves Observed from a Ship-Based Stereo Video System, *J. Phys. Oceanog.*, **47** (2017).
- Gemmrich, J., and J. Thomson, Observations of the shape and group dynamics of rogue waves, *Geophys. Res. Lett.*, **44** (2017).
- Ardhuin et al, Measuring ocean waves in sea ice using SAR imagery: A quasi-deterministic approach evaluated with Sentinel-1 and in situ data, *Remote Sensing of Environment*, **189** (2017).
- Collins et al, Doppler Correction of Wave Frequency-Spectra Measured by Underway Vessels, *J. Atmos. & Ocean. Tech.*, **34** (2017).
- Rogers, E., J. Thomson, H. Shen, M. Doble, S. Cheng, P. Wadhams, Dissipation of wind waves by pancake and frazil ice in the autumn Beaufort Sea, *J. Geophys. Res.*, **121** (2016).

- Thomson et al., Emerging trends in the sea state of the Beaufort and Chukchi Seas, *Ocean Modelling*, **105** (2016).
- Forbush, D., B. Polagye, J. Donegan, J. McEntee, J. Thomson, and L. Kilcher, Performance Characterization of a Cross-flow Hydrokinetic Turbine in Sheared Inflow, *International Journal of Marine Energy*, **16** (2016).
- Gemmrich, J., J. Thomson, W.E. Rogers, A. Pleskachevsky, S. Lehner, Spatial characteristics of ocean surface waves, *Ocean Dynamics*, **66** (2016).
- Thomson, J., M. Schwendeman, S. Zippel, S. Moghimi, J. Gemmrich, E. Rogers, Turbulence in the ocean surface layer, *J. Phys. Oceanog.*, **46** (2016).
- Moghimi, S. , J. Thomson, T. Ozkan-Haller, L. Umlauf, S. Zippel, On the modeling of wave-enhanced turbulence near-shore, *Ocean Modeling*, **103** (2016).
- Smith, M. and J. Thomson, Scaling observations of surface waves in the Beaufort Sea, *Elementa*, **4**:000097 (2016).
- Zippel, S. and J. Thomson, Air-Sea Interactions in the Marginal Ice Zone, *Elementa Sci. Anth.*, **4**:000095 (2016).
- Wang, Y., B. Holt, E. Rogers, J. Thomson, and H. Shen, Wind and wave influences on sea ice floe size and leads in the Beaufort and Chukchi Seas during the summer-fall transition 2014, *J. Geophys. Res.*, **121** (2016).
- Schwendeman, M. and J. Thomson, Observations of whitecap coverage and the relation to wind stress, wave slope, and turbulent dissipation, *J. Geophys. Res.*, **120** (2015).
- Carini, R., C. Chickadel, A. Jessup, J. Thomson, Estimating wave energy dissipation in the surf zone using thermal infrared imagery, *J. Geophys. Res.*, **120** (2015).
- Thomson, J., J. Talbert, A. de Klerk, A. Brown, M. Schwendeman, J. Goldsmith, J. Thomas, C. Olfe, G. Cameron, C. Meinig, Biofouling effects on the response of a wave measurement buoy in deep water, *J. Atmos. & Ocean. Tech.*, **32** (2015).
- Zippel, S. and J. Thomson, Wave breaking and turbulence at a tidal inlet, *J. Geophys. Res.*, **120** (2015).
- Schwendeman, M. and J. Thomson, A Horizon-Tracking Method for Shipboard Video Stabilization and Rectification, *J. Atmos. & Ocean. Tech.*, **32**, (2015).
- McCaffrey, K., B. Fox-Kemper, P.E. Hamlington, J. Thomson, Characterization of Turbulence Anisotropy, Coherence, and Intermittency at a Prospective Tidal Energy Site: Observational Data Analysis. *Renewable Energy*, **76**(4), 441-453 (2015).
- Thomson, J., S. Zippel, A. Horner-Devine, C. Rusch, R. Geyer, Wave breaking turbulence at the offshore front of the Columbia River Plume, *Geophys. Res. Lett.*, **41**, (2014).
- Thomson, J. and E. Rogers, Swell and sea in the emerging Arctic Ocean, *Geophys. Res. Lett.*, **41** (2014).
- Bassett, C., J. Thomson, P. Dahl, and B. Polagye, Flow noise and turbulence in two tidal channels, *J. Acoust. Soc. Amer.*, **135** (2014).
- Durgesh, V., J. Thomson, M. Richmond, and B. Polagye, Noise correction of turbulent spectra obtained from Acoustic Doppler Velocimeters, *Flow Measurement and Instrumentation*, **37** (2014).
- D'Asaro, E. , J. Thomson, A. Shcherbina, R. Harcourt, M. Cronin, M. Hemer, B. Fox-

Kemper, Quantifying upper ocean turbulence driven by surface waves, *Geophys. Res. Letters*, **41** (2014).

- Schwendeman, M., J. Thomson, and J. Gemmrich, Wave breaking dissipation in a fetch limited sea, *J. Phys. Oceanog.*, **44** (2014).
- Rinehimer, J.P. and J. Thomson, Observations and modeling of heat fluxes on tidal flats, *J. Geophys. Res.*, **119** (2014).
- Thomson, J., E. D'Asaro, M. Cronin, E. Rogers, R. Harcourt, and A. Shcherbina, Waves and the equilibrium range at Ocean Weather Station P, *J. Geophys. Res.*, **118** (2013).
- Richard, J.B., J. Thomson, B. Polagye, and J. Bard, Method for Identification of Doppler Noise Levels in Turbulent Flow Measurements Dedicated to Tidal Energy, *Int. J. of Marine Energy*, **3-4** (2013).
- Thyng, K., J. Riley, and J. Thomson, Inference of turbulence parameters from ROMS, *Ocean Modeling*, **72** (2013).
- Palodichuk, M., B. Polagye, and J. Thomson, Resource mapping at tidal energy sites, *J. Ocean. Eng.*, **38**, (2013).
- Rinehimer, J. P., J. Thomson, and C. Chickadel, Thermal observations of ebb flows on fine-grained tidal flats: Evidence of exfiltration, *Cont. Shelf Res.*, **60S**, (2013).
- Polagye, B. and J. Thomson, Tidal energy resource characterization: methodology and field study in Admiralty Inlet, Puget Sound, US, *Proc. IMechE, Part A: J. Power and Energy*, **227**, (2013).
- Bassett, C., J. Thomson, B. Polagye, Sediment-generated noise and bed stress in a tidal channel, *J. Geophys. Res.*, **118**, (2013).
- Thomson, J., Observations of wave breaking dissipation from a SWIFT drifter, *J. Atmos. & Ocean. Tech.*, **29**, (2012).
- Bassett, C., B. Polagye, M. Holt, and J. Thomson, A vessel noise budget for Admiralty Inlet, Puget Sound, WA (USA), *J. Acous. Soc. Amer.*, **132** (2012).
- Thomson, J., M. Richmond, B. Polagye, V. Durgesh, Measurements of turbulence at two tidal energy sites, *J. Ocean. Eng.*, **37** (2012).
- Elgar, S., B. Raubenheimer, J. Thomson, M. Moulton, Resonances in an evolving hole in the swash zone, *J. Waterways, Port, Coastal, and Ocean Eng.*, **138** (2012).
- Thomson, J., Observations of thermal diffusivity and a relation to the porosity of tidal flat sediments, *J. Geophys. Res.*, **115** (2010).
- Thomson, J. J.R. Gemmrich, and A.T. Jessup, Energy dissipation and the spectral distribution of whitecaps, *Geophys. Res. Let.*, **36** (2009).
- Thomson, J. and A.T. Jessup, A Fourier-based method for the distribution of breaking crests from video observations, *J. Atmos. & Ocean. Tech.*, **26** (2009).
- Thomson, J., S. Elgar, and T.H.C. Herbers, Refraction and reflection of infragravity waves over complex bathymetry, *J. Geophys. Res.*, **112** (2007).
- Thomson, J., S. Elgar, B. Raubenheimer, T.H.C. Herbers, and R.T. Guza, Tidal modulation of infragravity waves via nonlinear energy losses in the surfzone, *Geophys. Res. Let.*, **33** (2006).
- Thomson, J., S. Elgar, and T.H.C. Herbers, Reflection and tunneling of ocean waves observed at a submarine canyon, *Geophys. Res. Let.*, **32** (2005).

- Pedlosky, J., and J. Thomson, Baroclinic instability of time-dependent currents, *J. Fluid Mech.*, **490** (2003).

Conference Proceedings

- Guerra, M. and J. Thomson, TURBULENCIA EN SITIOS ADECUADOS PARA LA EXTRACCION DE ENERGIA HIDROKINETICA, XXIII CONGRESO CHILENO DE INGENIERÍA HIDRÁULICA, 2017.
- Deng et al, Analysis of error in surface current mapping by an along-track interferometric FMCW SAR, IGARS 2016.
- Shen et al, A Field Study of Waves in Ice in the Beaufort/Chukchi Sea Fall 2015, *23rd IAHR International Symposium on Ice*, 2016.
- Cheng et al, Preliminary Calibration of a Rheological Sea Ice Model for Wave-In-Ice using Field Data, *23rd IAHR International Symposium on Ice*, 2016.
- Guerra, M. and J. Thomson, ORPC RivGen wake characterization, *Marine Energy Technology Symposium 2016*.
- Thomson et al, Extreme Conditions at Wave Energy Sites, *Marine Energy Technology Symposium 2016*.
- Ellenson et al, Wave Resource Assessment: Predicting the Peaks of Extreme Wave Conditions, *Marine Energy Technology Symposium 2016*.
- Brown, A. and J. Thomson, Phase-resolved heave plate dynamics for wave energy converters, *Marine Energy Technology Symposium 2016*.
- Forbush, D. et al, Characteristics and control of cross-flow turbine in shear flow, *Marine Energy Technology Symposium 2015*.
- Brown, A. and J. Thomson, Heave plate dynamics for Wave Energy Conversion, *Marine Energy Technology Symposium* (2015).
- Cavagnaro et al, Evaluation of a hydrokinetic turbine to assess control and power quality, EWTEC, 2015.
- Filipot, J.F., M. Prevosto, C. Masiondieu, M. Le Boulluec, J. Thomson, Wave and turbulence measurements at a tidal energy site, *Currents, Waves, and Turbulence Measurements workshop*, St. Petersburg, FL, (2015).
- Thomson, J., J. Talbert, A. de Klerk, S. Zippel, M. Guerra, L. Kilcher, Turbulence measurements from moving platforms, *Currents, Waves, and Turbulence Measurements workshop*, St. Petersburg, FL, (2015).
- Thomson, J., L. Kilcher, S. Harding, Multi-scale coherent turbulence at tidal energy sites, *International Conference on Ocean Energy* (2014).
- Rusch, C., J. Thomson, S. Zippel, and M. Schwendeman, Video recognition of breaking waves, *Oceans 2014*, St. Johns, Newfoundland (2014).
- Kilcher, L, J. Thomson, J. Colby, Determining the spatial coherence of turbulence at MHK sites, *Marine Energy Technology Symposium (GMREC)*, Seattle, WA (2014).
- Davis, A., B. Fabien, J. Thomson, and T. Mundon, Modeling and Analysis of a Multi Degree of Freedom Point Absorber Wave Energy Converter, *Proceedings of the ASME 2014 33rd International Conference on Ocean, Offshore and Arctic Engineering (OMAE2014)*, June 8-13, 2014, San Francisco, USA , (2014).
- Deppe, W, J. Thomson, C. Krembs, and B. Polagye, Hypoxic intrusions to Puget Sound from the Ocean, *Oceans 2013 MTS/IEEE*, San Diego, CA (2013).

- Richard, J.B., J. Thomson, B. Polagye, and J. Bard, Method for Identification of Doppler Noise Levels in Turbulent Flow Measurements Dedicated to Tidal Energy, *European Wave and Tidal Energy Conference* (2013).
- Thomson, J., L. Kilcher, M. Richmond, J. Talbert, A. deKlerk, B. Polagye, M. Guerra, and R. Cienfuegos, Tidal turbulence spectra from a compliant mooring, *Marine Energy Technology Symposium (GMREC)*, Washington, DC (2013).
- Nair, B. et al, Low-cost utility-scale wave energy enabled by magnetostriction, *Marine Energy Technology Symposium(GMREC)*, Washington, DC (2013).
- Polagye, B. and J. Thomson, Implications of tidal phasing for power generation at a tidal energy site, *Marine Energy Technology Symposium(GMREC)*, Washington, DC (2013).
- Polagye, B. et al. Cross-flow turbine performance and wake characterization, *Marine Energy Technology Symposium(GMREC)*, Washington, DC (2013).
- Holman, R. and J. Thomson, Remote-sensing of bathymetry and currents in a tidal inlet, *Coastal Dynamics* (2013).
- Polagye, B., J. Thomson, M. Palodichuk, Multiscale tidal resource characterization: a case study of Admiralty Inlet, Puget Sound, WA (USA), *International Conference on Ocean Energy* (2012).
- Graber, J, J. Thomson, B. Polagye, A. Jessup, Land-based infrared imagery for marine mammal detection, *SPIE Remote sensing and Modeling of Ecosystems for Sustainability VIII* (2011).
- Bassett, C., J. Thomson, B. Polagye, Underwater noise measurements from a 1/7 scale wave energy converter, *Oceans 2011*, Hawaii (2011).
- Harding, S., J. Thomson, B. Polagye, M. Richmond, V. Durgesh, I. Bryden, Extreme value analysis of tidal stream velocity perturbations, *European Wave and Tidal Energy Conference* (2011).
- Thomson, J., M. Richmond, B. Polagye, and V. Durgesh, Quantifying turbulence for tidal power applications, *Oceans 2010 MTS/IEEE*, Seattle ,WA (2010).
- Polagye, B., J. Epler, J. Thomson, Limits to the predictability of tidal current power, *Oceans 2010 MTS/IEEE*, Seattle, WA (2010).
- Epler, J., B. Polagye, J. Thomson, Shipboard acoustic Doppler current profiler surveys to assess tidal current resources, *Oceans 2010* , Seattle, WA (2010).
- Bassett, C., J. Thomson, B. Polagye, Characterizing Underwater Noise at a Tidal Energy Site, *Ocean 2010 MTS/IEEE*, Seattle WA (2010).
- Gooch, S., J. Thomson, B. Polagye, and D. Meggitt, Site Characterization for Tidal Power, *Oceans 2009 MTS/IEEE*, Biloxi, MS (2009).
- Thomson, J., More data, more people, more relevance, *Oceanography in 2025*, National Academy of Sciences workshop, Irvine, CA (2009).

Other publications

- Thomson, J., S. Merrifield, J. Girton, S. Swart, C. Meinig, L. Lenain, Air-sea observations from Autonomous and Lagrangian Platforms (ALPS), *ALPSII Workshop Proceedings* (2017).
- Thomson, J, B. Polagye, and V. Neary, Field measurements for tidal resource characterization and assessment, Chapter in *Marine Renewable Energy: Resource Characterization and Physical Effects*. Springer (2017).

- Feddersen et al, Inner Shelf DRI Science Plan, APL Tech Report 1602 (2016).
- Lee et al, Science and Experiment Plan: Stratified Ocean Dynamics of the Arctic, Technical Report APL-UW 1601. Applied Physics Laboratory, University of Washington, Seattle, September 2012, 48 pp (2016).
- Wadhams, P. and J. Thomson, The Arctic Ocean Cruise of the R/V Sikuliaq 2015: an investigation of waves and the advancing ice edge, *Il Polo*, LXX-4, (2015).
- Kilcher, L., J. Thomson, J. Talbert, and A. deKlerk, “Measuring turbulence from moored acoustic Doppler velocimeters A manual to quantifying inflow at tidal energy sites”, NREL technical report TP-5000-62979 (2016).
- Belka, D, M. Schwendeman, J. Thomson, M. Cronin, “Historical wave and wind observations at Ocean Station P”, APL Technical Report 1407 (2014).
- Thomson, J., V. Squire, S. Ackley, P. Wadhams, A. Babanin, P. Guest, T. Maksym, S. Stam-merjohn, C. Fairall, O. Persson, M. Doble, E. Rogers, H. Graber, H. Shen, J. Gemmrich, S. Lehner, B. Holt, and T. Williams, *Science and Experiment Plan: Sea State and Boundary Layer Physics of the Emerging Arctic Ocean*, Technical Report APL-UW 1306, Applied Physics Laboratory, University of Washington, Seattle, September 2012, 59 pp (2013).
- Lee, C.M., S. Cole, M. Doble, L. Freitag, P. Hwang, S. Jayne, M. Jeffries, R. Krishfield, T. Maksym, W. Maslowski, B. Owens, P. Posey, L. Rainville, B. Shaw, T. Stanton, J. Thomson, M.-L. Timmermans, J. Toole, P. Wadhams, J. Wilkinson, and Z. Zhang, *Marginal Ice Zone (MIZ) Program: Science and Experiment Plan*, Technical Report APL-UW 1201. Applied Physics Laboratory, University of Washington, Seattle, September 2012, 48 pp (2012).
- Gaffney, P., P. Beauchamp, M. Beck, V. Browning, C. Garrett, A. Grilli, J. Hamilton, T. Ozkan-Haller, E. Philpot, B. Rath, R. Schmitt, J. Thomson, L. Webber, Z. Yang, *An Evaluation of the U.S. Department of Energy's Marine and Hydrokinetic Resource Assessments*, National Academies Press, (2012)
- Neary, V., B. Gunawan, M. Richmond, V. Durgesh, B. Polagye, J. Thomson, M. Muste, A. Fontaine, *Field Measurements at Rivers and Tidal Current Sites for Hydrokinetic Energy Development: Best Practices Manual*, Oak Ridge National Laboratory Technical Manual 2011/419, (2011).

Service/Synergistic activities

- Guest editor, JGR special issue (2017-2018).
- Coordination between ONR and NRPB Arctic programs (2016-present)
- Guest editor, Elementa special issue (2016-2017).
- Session co-chair, Ocean Sciences Meeting (2016).
- Session chair, Gas Transfer at Air-Water Interface Symposium (2015).
- Workshop on extreme waves for Wave Energy Converters (2014).
- Session chair, Marine Energy Technical Symposium (2014).
- National Academies NRC committee on Marine Hydrokinetic Energy (2010-2012)
- Workshop on Marine Energy projects in Chile (2011).
- Workshop on data gaps for Offshore Renewable Energy (2011).
- DOE SBIR-STTR Reviews (2011)
- NOPP review panel, Integrated Ocean Observing System (2010)
- Session chair, AGU fall meeting (2010)
- Chair, Marine Renewable Energy track, *Oceans 2010* conference
- NSF review panel, physical oceanography (2010)
- Maine Technology Asset Fund reviewer (2010)
- Session chair, Workshop on Environmental Effects of Tidal Energy (2010)

- Workshop on air-sea interactions under tropical cyclones (2010),
- Session chair, IEEE International Geoscience & Remote Sensing Symposium (2008)
- Journal peer reviews: Continental Shelf Research, Marine Pollution Bulletin, J. Phys. Oceanog., J. Atmos. Ocean. Tech., Ocean Modeling, Marine Geology, IEEE Trans. on Geosci. and Remote Sens., J. Waterway, Port, Coastal and Ocean Eng., J. of Fluid Mech., J. of Geophys. Res., Estuar. Coast. and Shelf Science, IEEE J. of Ocean. Eng..

Outreach

- Volunteering:
 - Polar Science Weekend (2014-present)
 - UW College of Engineering Discovery Days (2010-present),
 - Pacific Science Center *Science EXPO* (2012),
 - Ocean Inquiry Project (2009-2012),
 - Washington Weekend open house demonstrations (2007).
- Invited talks / guest lectures:
 - DOE-ONR round table (2017)
 - Nortek 20th Anniversary Symposium (2016)
 - IARPC webinar (2016)
 - Annual Town hall meetings, Barrow AK (2015-present)
 - Sea ice modeling workshop, Boulder CO (2016)
 - North American Arctic Domain Awareness Workshop, Anchorage AK (2015)
 - Strait Science Series, Nome AK (2015),
 - Navy Science & Technology Expo (2015),
 - Karles Invitational Conference, Naval Research Lab (2014),
 - Pacific Science Center “Cool jobs” series (2013),
 - Columbia River Maritime Museum “Science on Tap” (2013),
 - PSC Environmental Science and Technology Practicum (2012),
 - Washington Dept of Ecology seminar series (w/ Christopher Krembs) (2011),
 - Panelist, Washington Ocean Energy Conference (2011),
 - COSEE Community College Faculty Summer Teaching Institute (2011),
 - Institute for Journalism and Natural Resources (2011),
 - Panelist, Ocean Renewable Energy Conference V / EnergyOcean (2010),
 - Mid-C Seminar (2010),
 - Nortek User Symposium (2010),
 - Panelist, Global Marine Renewable Energy Conference (2010),
 - UW Water Center series (2010),
 - UW Energy Future lecture (2009),
 - Pacific Science Center *Science Cafe* with KCTS public television (2009),
 - Society of Naval Architects and Marine Engineers (2009),
 - Marine Technology Society (2008),
 - Cape Cod Community College (2005).
- Media coverage:
 - OSU “Engineering Out Loud” Podcast, Oct 2017.
 - Mara Johnson-Groh, “Validating Tall Tales of Rogue Waves,” *Hakai Magazine*, March 13, 2017
 - NPR “Living on Earth” interview, 2016.

- Deadliest Catch / The Bait, Discovery Channel, May 2015
- Harris, M, “Waves of destruction”, Scientific American, May 2015.
- CNN “Wish you were here” video segment, Nov 2014.
- Washington Post, “Sixteen-foot swells reported in once-frozen region of Arctic Ocean” (30 Jul 2014). Also Nation Geographic News, CBC radio, Slate, and Christian Science Monitor.
- Environmental Monitor, “Sensor-equipped ferry to monitor Admiralty Inlet, gateway to Puget Sound” (1 Jul 2014).
- TVW, “High tech sensors for the ferries” (18 June 2014).
- Seattle PI, “Ferries for Science” (16 June 2014).
- AGU online research highlight and blog post (spring 2014)
- Quartz online journal, “The melting polar icecap is creating waves the size of houses” (29 Apr 2014).
- King 5 Weather Special, “Beyond the Forecast: Power Play” (21 Nov 2013).
- Santiago Times, “Tides are changing to expand renewable energy options in Chile” (20 Feb 2013).
- New York Times “Scientists at Work” blog (2012-2013) and Science Times article (16 Oct 2012).
- AGU online research highlight and blog post (fall 2012)
- UW TV, “UW 360: tidal energy research in Puget Sound,” (Dec 2011)
- MSNBC, “IBM sees energy, money in motion of the ocean,” (1 Nov 2011)
- CNNMoney, “Renewable tidal energy’s reality check,” (21 Oct 2011)
- KUOW, “Harnessing tides in the Northwest” (25 Aug 2011).
- Seattle Times, NW Jobs profile (12 June 2011).
- KUMO news radio (9 June 2011).
- King 5 news (8 June 2011).
- KUOW & Oregon Public Radio, “Researchers Study Potential Impact Of Tidal Power Turbines,” (25 May 2011).
- Seattle Times, “Admiralty Inlet an ideal spot for tidal power,” (14 Dec 2010).
- King 5 news, “Tides could be tapped for clean energy,” (14 Oct 2010).
- King 5 news, “[Infrared] Camera paints orca portrait,” (26 Aug 2010).
- King 5 news, “Fresh water in mud flats,” (5 Apr 2010).
- Seattle Times (May 2009)
- KUOW, May 2009

Graduate Student Advising

- S. Brenner, PhD (expected 2022)
- S. Kastner, MS (2017) PhD (expected 2020)
- M. Guerra, PhD (expected 2018)
 - Fullbright fellow
- M. Smith, MS (2016), PhD (expected 2019)
 - Valle fellow
- S. Zippel, MS (2014), PhD (2017)
- M. Schwendeman, MS (2012), PhD (2016)
 - ARCS Fellow
- C. Bassett, MS (2010), PhD (2013)

- NSF Graduate Research Fellow
- J.P. Rinehimer, PhD (2013)
 - National Defense Industry Association Fellow, UW CEE Henry Gray Fellow
- W. Deppe, MS (2013)
- M. Palodichuk, MS (2012)
- S. Henriksen, MS (2011)
- J. Graber, MS (2011)
- S. Gooch, MS (2009)

Graduate Student Committees

- Fadia Ticona, MS (expected 2018)
- Robin McLachlan (expected 2019)
- Je-Yuan (Andy) Hsu, PhD (expected 2017)
- Raul Flores Audibert, PhD (expected 2018)
- Arvin Saket, PhD (2017)
- David Ortiz-Suslow, PhD (2017)
- Ashley Ellenson, MS (2017)
- E. Eidam, PhD (2017)
- M. Mckeon, ABD (2016)
- H. Dosser, PhD (2015)
- B. Kilbourne, PhD (2015)
- J. Joslin, PhD (2015)
- R. Hale, PhD (2014)
- Y. Yuan, PhD (2012)
- D. Nowacki, MS (2010)
- J. Epler, MS (2010)
- M. Avener, MS (2009)

Postdoctoral mentoring

- Adam Brown (2014-2017)
- Michael Schwendeman (2016-2017)

Conference Abstracts

- Lee, C., J. Thomson, and L. Rainville, Arctic Observing using Integrated Systems of Autonomous Instruments, *Polar 2018*.
- Rainville, L. C. Lee, and J. Thomson, Eddies, Sub-Mesoscale Structures, and Water Mass Variability Across the Beaufort Sea, *Polar 2018*.
- Smith, M., J. Thomson, L. Roach, Waves, turbulence and thin ice at the autumn air-sea-ice interface, *Polar 2018*.
- Jha, R. and J. Thomson, GPS waves measurements on wave gliders, *Oceanology 2018*.
- Guimaraes, P. V., et al, Surface Kinematic buoy measurements in strong current gradients, *IUTAM symposium of wind waves 2017*.
- Kastner, S., A. Horner-Devine, J. Thomson, Wind-influenced mixing and dynamics in the near-field Fraser River plume, *Gordon Coastal circulation conf 2017*.
- Smith et al, Storm-drive mixing in the Arctic, *IGS 2017*.
- Cavagnaro, Brown, and Thomson, Power Dissipation Analysis of a Heaving Point Absorber Excited by Wakes, *METS 2017*
- Brown, A, and J. Thomson, Breaking waves observed during storms at PMEC, *METS 2017*.
- Brown, A, and J. Thomson, Breaking waves observed during storms at a wave energy test site, *EWTEC 2017*.
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