

H. TUBA ÖZKAN-HALLER

Dean

College of Earth, Ocean, and Atmospheric Sciences

Oregon State University

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ACADEMIC LEADERSHIP POSITIONS

Dean (March 2023 – present), **Interim Dean** (April 2022-March 2023), **Acting Dean** (August 2021-April 2022)

– College of Earth, Ocean, and Atmospheric Sciences, Oregon State University

Responsibilities include:

- **Leadership of the College of Earth, Ocean, and Atmospheric Sciences**, a leader in the study of Earth as an integrated system, with more than 100 faculty, 150 graduate students, and 1000 undergraduate students, elevating and advancing a compelling shared vision for the College, advocating for growth and innovation in earth, ocean and atmospheric sciences research and funding at national, state and local levels, creating and sustaining an environment of academic and scholarly excellence in order to enable success for students, faculty, and staff, including the evaluation and career development of faculty and staff, developing and implementing a business plan that looks to strategic opportunities for sustainable program development.

Highlights of accomplishments:

- Launched Strategic Action Planning Task Force made up of a small group of mid-career faculty and staff who are charged with evaluating the current state of the college within the context of the existing strategic plan and assess progress on past goals, and identify new goals, outline alternative future scenarios for hiring, evaluate financial sustainability and organizational effectiveness, and identify potential metrics for measuring success.
 - Executed hiring plan that was initiated under previous leadership. Completed 10 tenure-track faculty hires (60% identify as women), 2 research faculty, and 4 instructor hires.
 - Finalized \$27M insurance settlement related to a major fire in one of the college's research buildings, worked collaboratively with the Provost's office to secure additional institutional funding to help college accelerate research productivity.
- **Leadership at the University level**, including active participation in all aspects of institution-wide planning and policy development as a creative and innovative thinker who builds on Oregon State University's strengths as an international research university.

Highlight of accomplishments:

- Serving on Executive Committee and providing leadership in campus engagement for a new Collaborative Innovation Complex that will be designed to further OSU's aspirations towards team-based interdisciplinary research in climate and marine science, artificial intelligence and computation, materials science, and health science.

- **Leadership in college fundraising**, including a sustained commitment to private, foundation, and corporate fundraising assist the university and the Oregon State University Foundation in donor stewardship and growing philanthropy.

Highlight of accomplishments:

- Participant in private and foundation fundraising efforts that are well on their way to accomplishing fundraising goals. Attained sizable increases in foundation donations.
- **National Leadership**, including participation in working groups, committees, and boards to ascertain and influence national and local funding priorities, policy decisions, and national trends relevant to the college.

Highlight of accomplishments:

- Member of two Federal Advisory Committee Act (FACA) groups: the Board on Coastal Engineering Research of the Army Corps of Engineers, and the Hydrographic Survey Review Panel of the National Oceanic and Atmospheric Administration.

Associate Vice President for Research Administration and Development (April 2019-April 2022)

–Research Office, Oregon State University – on leave August 2021-April 2022

Responsibilities include:

- **Leadership of the Office of Sponsored Research and Award Administration**, which oversees the research portfolio of OSU’s \$450M research enterprise with a total staff of 35 professionals, serving as the institutions Authorized Organizational Representative, formulating, implementing and enforcing policies and practices related to research administration, working with campus stakeholders to put in place processes for smooth connections to research administration efforts across campus, playing a leadership role during major audits.

Highlights of accomplishments:

- A major re-organization of the office aimed at 1. aligning pre- and post-award functions and improve service to researchers and 2. addressing perceived and actual inequities across the office, 3. improving career and growth opportunities for staff.
- Collaborative implementation of process improvements for transactions that involve interactions across campus, including proposal review and award management functions aimed at: 1. Reducing administrative burden to researchers, 2. increasing efficiency of services that cross multiple university divisions.
- **Leadership of the Office of Research Development**, which coordinates and complements research development activities across campus, defining and implementing a research strategy for the institution, organizing faculty development activities, overseeing university response to limited submission funding opportunities, putting into place major research infrastructure support, making decisions on matching and incentive funds, working researchers and funding agencies to position the institution for success.

Highlights of accomplishments:

- Introduction of various new research development efforts along a spectrum of possible activities from ideation (e.g. “Ignite” research colloquia on emerging inter-disciplinary

- topics) to targeted proposal support (e.g. “red team” reviews at the proposal-writing stage) to the development of sponsor-specific strategies (e.g. for mission agencies or foundations) to improved representation of OSU’s strengths (e.g. through communication of public impacts of research). These efforts have already helped with multiple new proposal submissions, and successful awards for large or complex projects from federal agencies and private foundations.
- Major re-visit of all internal competition processes with an equity and social justice lens to ensure transparency of processes and alignment of stated values and objectives with rubrics and selection practices.
 - **Fiscal leadership**, overseeing \$3.5M annual budget for the Offices of Sponsored Research and Award Administration and Research Development.

Highlights of accomplishments:

- Successful arguments for the need for additional resources following a zero-based budgeting exercise along with a comparative analysis utilizing data from peer institutions.
- Stewardship of university-level research funding, including funds towards equipment purchases and space renovations, and limited incentive funding for research programs.
- **Leadership at the University level**, service on the university strategic planning steering committee, the university president search committee, co-chair of the Committee to Review Promotion & Tenure (P&T) Guidelines for Innovation and Entrepreneurship Inclusion.

Highlights of accomplishments:

- Progress towards broadening P&T considerations of innovation and entrepreneurship impacts, as evidenced by a successful national summit with resulting action items.
- Service on the search for a new President for Oregon State University as a search advocate to ensure the equity and inclusivity of the search process.

Associate Dean for Research and Faculty Advancement (April 2017-March 2019)

– College of Earth, Ocean, and Atmospheric Sciences, Oregon State University

Responsibilities include:

- **Research:** Development of research programs, including overseeing an annual college research portfolio of over \$40M, identifying and communicating funding opportunities to faculty, facilitating large inter-disciplinary proposals, organizing efforts responding to large programs (Navy Task Force Ocean, Coasts and People, Navigating the New Arctic), fostering cross-college collaborations through research mixers and “ignite” colloquia, negotiating for matching funds. Facilitating college efforts towards large center proposals, interacting with National Laboratories, and fostering close relationships with Federal funding agencies, such as the National Science Foundation, Office of Naval Research, DOE, NOAA, USGS, DARPA, Army Corps of Engineers, Gulf of Mexico Research Program, among others.

Highlights of accomplishments:

- Implementation of a research development activities related to specific funding solicitations. Organization of connection sessions to enable collaborations of faculty across the university to form inter-disciplinary teams.

- Contributions to the college strategic planning effort around the articulation of future major research efforts.
- **Faculty Advancement:** Participation in new faculty hiring, including arrangements and negotiations related to dual-career hires. Enabling the advancement of faculty, including establishing a formal program of faculty mentoring. Organizing faculty professional development events (~7 per term) on wide-ranging topics related to research proposal success, interacting with program managers, graduate student mentoring, grant management, large proposals, and issues related to diversity, equity, and social justice.

Highlights of accomplishments:

- Implementation of a year-long academic faculty development curriculum covering topics covering proposal development, time management, special considerations for large and complex projects, sponsor-specific strategies, effective teaching practices, and inclusion of equity considerations in research programs.
- Contributed to the successful recruitment of 5 dual career hires.
- **Stewardship of research facilities and spaces,** including managing office, laboratory and storage space assignments, large facilities such as the OSU’s Ocean Observing Facility and the Marine Geology Repository facility, as well as numerous high-end analytical facilities.

Highlights of accomplishments:

- Organization of faculty efforts to consolidate sample collections to create space for storage and lab facilities.
- A major relocation effort of ~40 faculty and their research groups following a major fire in a research-intensive building. Targeted support for students and faculty near a major career transition to ensure timely progress. Coordination with units across campus and insurance companies to ensure a healthy start to a necessarily long-term relationship.
- **University leadership:** Interactions with OSU’s central administration on issues related to hiring, large proposals and grants, space, strategic planning, and issues surrounding equity, inclusion, and social justice.

Highlights of accomplishments:

- Participation on Oregon State University’s strategic planning effort as part of the planning steering committee.
- Major role in the OSU’s President’s and Provost’s Leadership Council on Equity, Inclusion, and Social Justice in the realm of analyzing practices around faculty recruitment.
- **National Leadership,** including participation in working groups, committees, and boards to ascertain and influence national and local funding priorities, policy decisions, and national trends relevant to the college.

Highlight of accomplishments:

- Chair, Committee on “Long-term Coastal Zone Dynamics: Interactions and Feedbacks between Natural and Human Processes and their Implications for the U.S. Coastline,” National Academies of Sciences, Engineering, and Medicine (NASEM).

EDUCATION

- University of Delaware, Newark, Delaware, USA
 - Ph.D. in Civil Engineering, 1998
 - MCE in Civil Engineering, 1994
- Boğaziçi University, Istanbul, Turkey
 - B.Sc. in Civil Engineering, 1991

ACADEMIC FACULTY POSITIONS

2014-present	Professor – College of Earth, Ocean, and Atmospheric Sciences, Oregon State University
2014-present	Professor – School of Civil and Construction Engineering, Oregon State University
2008-2014	Associate Professor – College of Oceanic and Atmospheric Sci., Oregon State University
2008-2014	Associate Professor – School of Civil and Construction Engrg, Oregon State University
2012	Visiting Associate Professor, Department of Civil Engrg, Boğaziçi University, Turkey
2001-2008	Assistant Professor – College of Oceanic and Atmospheric Sci., Oregon State University
2001-2008	Assistant Professor – School of Civil and Construction Engrg, Oregon State University
1998-2001	Assistant Professor – Naval Architecture and Marine Engrg, University of Michigan
1997-1998	Postdoctoral Researcher, University of Cantabria, Spain.

SELECTED PROFESSIONAL ACTIVITIES

- Member, Board on Coastal Engineering Research, Army Corps of Engineers (2022-present)
- Member, Hydrographic Survey Review Panel, National Oceanic and Atmospheric Administration (2022-present)
- Organizing Committee, Summit on “Promotion and Tenure – Innovation and Entrepreneurship (PTIE),” September 16-18, 2020.
- Participant, Convocation on “Re-envisioning Promotion and Advancement for STEM Faculty: Aligning Incentives with Values,” National Academies of Sciences, Engineering, and Medicine, October 17-18, 2019.
- Woods Hole Institute of Oceanography-Massachusetts Institute of Technology Joint Program Review, October 2019.
- Chair, Committee on [“Long-term Coastal Zone Dynamics: Interactions and Feedbacks between Natural and Human Processes and their Implications for the U.S. Coastline,”](#) National Academies of Sciences, Engineering, and Medicine, 2017-2018.
- Member, Ocean Studies Board, National Academies of Sciences, Engineering, and Medicine, 2013-2018.
- Invited Plenary Talk at the Goldschmidt Conference, [“Transforming Academia: Advancing Diversity, Inclusion, and Social Justice in the Geosciences”](#) Aug 16, 2018.
- Member and co-author, [“An Evaluation of the U.S. Department of Energy's Marine and Hydrokinetic Resource Assessments,”](#) National Research Council, 2010-2012.
- Science Advisory Team, Lower Columbia Solutions Group, 2010-present.
- Organizing committee – “The Past and Future of Nearshore Processes Research,” 2013.
- Steering committee, International Conference on Coastal Engineering 2016, 2015-2016.
- Organizing committee, Gordon Conference on Coastal Oceanography, 2009.

- Invited Speaker, Chapman Lecture Series, Woods Hole Oceanographic Institution, 2010.
- Invited Speaker, Gordon Conference on Coastal Oceanography, June 2005.

AWARDS AND HONORS

- Multiple invited plenary contributions, including a plenary talk at 2018 Goldschmidt Conference “Transforming Academia: Advancing Diversity, Inclusion, and Social Justice in the Geosciences”
- Woman of Achievement, Oregon State University, 2015.
- Pattullo Excellence in Teaching Award, College of Oceanic and Atmospheric Sciences, Oregon State University, 2011.
- Outstanding Faculty Member Award, Dept. of Naval Arch. and Marine Eng., U. of Michigan, 2001.
- Office of Naval Research Young Investigator Award, 1999.
- Best Ph.D. Dissertation Award, Dept. of Civil and Environmental Engineering, U. of Delaware, 1998
- Woman of Excellence Certificate of Distinction, University of Delaware, 1993.

PUBLICATIONS

Peer-reviewed journal publications (46 published, 1 in press; students/postdocs in italics)

2023:

- *Li, C., Özkan-Haller, H.T., Garcia Medina, G., Holman, R.A., Ruggiero, P., Jensen, T., Elson, D., Schneider, W.R., Observations of extreme wave runup events induced by bound infragravity waves, Nat. Hazards Earth Syst. Sci., 23, 107–126, doi:10.5194/nhess-23-107-2023*

2022

- *Li, C., Özkan-Haller, H.T., Lomonaco, P., Maddux, T.B., Garcia Medina, G. Experimental study of wave runup variability on a dissipative beach J. Geophys. Res., 127(6), doi: 10.1029/2022JC018418*

2020

- *Ellenson A., Pei, Y., Wilson, G., Özkan-Haller, H.T., Fern, X., An application of a machine learning algorithm to determine and describe error patterns within wave model output, Coastal Engng, 157, 103595, doi: 10.1016/j.coastaleng.2019.103595.*
- *Garcia Medina, G., Özkan-Haller, H.T., Ruggiero, P., Holman, R.A., Li, C., Runups of unusual size: rogueness and variability of swash, J. Geophys. Res., 135(2), doi: 10.1029/2019JC015186.*

2019

- *Brown, A., Thomson J., Ellenson, A., Rollano, F.T., Özkan-Haller, H.T., Haller, M.C., Kinematics and Statistics of Breaking Waves Observed Using SWIFT Buoys, IEEE J. of Oceanic Engng, 44(4), 1011-1023, doi: 10.1109/JOE.2018.2868335.*
- *Ticona Rollano, F., Brown, A., Ellenson, A., Özkan-Haller, H.T., Thomson, J., Haller, M.C., Breaking Waves in Deep Water: Measurements and Modeling of Energy Dissipation, Ocean Dynamics, 69(10), 1165-1179, doi: 10.1007/s10236-019-01301-2.*
- *Shaw, S.M., Bothwell, M., Furman, K., Gaines, L., John, D., Lopez, C., Osei-Kofi, N., Özkan-Haller, H.T., Plaza, D., Ruder, B., Warner, R.L., Advancing Women in Academic STEM:*

Catalyzing Institutional Transformation through an Immersion Seminar for Administrators and Faculty, *LANCET*, 393(10171), E17-E18, doi: 10.1016/S0140-6736(19)30206-5.

- Moghimi, S., **Özkan-Haller, H.T.**, Akan, C., Jurisa, J.T., Mechanistic analysis of the wave-current interaction in the plume region of a partially mixed tidal inlet, *Ocean Modeling*, 134(110-126), doi: 10.1016/j.ocemod.2018.12.003.

2018

- Garcia Medina, G., **Özkan-Haller, H.T.**, Ruggiero, P., Holman, R.A., Nicolini, T., Analysis and catalogue of sneaker waves in the US Pacific Northwest between 2005 and 2017, *Natural Hazards*, 94(2), 583-603, doi: 10.1007/s11069-018-3403-z.
- O’Dea, A., Haller, M.C., **Özkan-Haller, H.T.**, The Impact of Wave Energy Converter Arrays on Wave-Induced Forcing in the Surf Zone, *Ocean Engineering*, 161, 322-336, doi: 10.1016/j.oceaneng.2018.03.077.
- Ellenson, A., and **Özkan-Haller, H.T.**, Predicting Large Waves in the presence of a Low-Level Atmospheric Coastal Boundary Jet, *Weather and Forecasting*, 33(2), 479-499, doi: 10.1175/WAF-D-17-0035.1.

2017

- Akan, Ç., Moghimi, S., **Özkan-Haller, H.T.**, Osborne, J., Kurapov, A., Frontal Dynamics at the Edge of the Columbia River Plume, *Ocean Modeling*, 122, 1-12, doi:10.1016/j.ocemod.2017.12.001.
- Henderson, S. Arnold, J., **Özkan-Haller, H.T.**, Solovitz, S., Depth Dependence of Nearshore Currents and Eddies, *J. Geophys. Res.*, 122(11), 9004-9031, doi:10.1002/2016JC012349.
- Akan, Ç., Moghimi, S., **Özkan-Haller, H.T.**, Osborne, J., Kurapov, A., On the dynamics of the Mouth of Columbia River: Results from a three-dimensional fully coupled wave-current interaction model, *J. Geophys. Res.*, 122(7), 5218-5236, doi:10.1002/2016JC012307.
- Garcia Medina, G., **Özkan-Haller, H.T.**, Holman, R.A., Ruggiero, P., Large runup controls on a gently sloping dissipative beach, *J. Geophys. Res.*, 122(7), 5998-6010, doi:10.1002/2017JC012862.

2016

- Reimers, C., **Özkan-Haller, H.T.**, Sanders, R.D., McCann-Grosvenor, K., Chace, P.J., Crowe, S.A., The Dynamics of Benthic Respiration at a Mid-Shelf Station Off Oregon, *Aquatic Geochemistry*, 22(5-6), 505-527, doi:10.1007/s10498-016-9303-5.
- Moghimi, S., **Özkan-Haller, H.T.**, Wilson, G., Kurapov, A. (2016), A., Data Assimilation for Bathymetry Estimation at a Tidal Inlet, *Journal of Atmospheric and Oceanic Technology*, 33(10), 2145-2163, doi:10.1175/JTECH-D-14-00188.1.
- Reimers, C., **Özkan-Haller, H.T.**, Albright, A., Berg, P.(2016), Microelectrode Velocity Effects and Aquatic Eddy Covariance Measurements Under Waves, *Journal of Atmospheric and Oceanic Technology*, 33(2), 263-282, doi:10.1175/JTECH-D-15-0041.1.
- Moghimi, S., Thomson, J., **Özkan-Haller, H.T.**, Umlauf, L., Zippel, S.(2016), On the modeling of wave-enhanced turbulence nearshore, *Ocean Modeling*, 103, 118-132, doi:10.1016/j.ocemod.2015.11.004.

2015

- Long, J.W., and **Özkan-Haller, H.T.** (2015), Forcing and Variability of Non-Stationary Rip Currents, *J. Geophys. Res.*, 121, doi:10.1002/2015JC010990.

- Parkinson S., Dragoon, K., Reikard, G., *Garcia-Medina, G., Özkan-Haller, H.T.*, Brekken, T. (2015), Integrating ocean wave energy at large scales: A study of the US Pacific Northwest, *Renewable Energy*, 76, 551-559, doi: 10.1016/j.renene.2014.11.038.
- Berg, P., Remers, C.E., Rosman, J.H., Huettel, M., Delgard, M.L., Reidenbach, M.A., **Özkan-Haller, H.T.** (2015), Technical note: Time lag correction of aquatic eddy covariance data measured in the presence of waves, *Biogeosciences*, 12(22), 6721-6735, doi: 10.5194/bg-12-6721-2015.

2014

- *Guannel, G.*, and **Özkan-Haller, H.T.** (2014), Formulation of the Undertow using Linear Wave Theory, *Physics of Fluids*, 26(5), 056604, doi: 10.1063/1.4872160.
- *Garcia-Medina, G., Özkan-Haller, H.T.*, Ruggiero, P. (2014), Wave resource assessment in Oregon and southwest Washington, USA, *Renewable Energy*, 64, 203–214, doi:10.1016/j.renene.2013.11.014.
- *Wilson, G.W., Özkan-Haller, H.T.*, Holman, R.A., Haller, M.C., Honegger, D., Chickadel, C. (2014), Surf zone bathymetry and circulation predictions via data assimilation of remote sensing observations, *J. Geophys. Res.*, 119(3), 1993-2016, doi:10.1002/2013JC009213.
- *Landon, K.C., Wilson, G.W., Özkan-Haller, H.T.*, MacMahan, J. (2014), Ensemble-based data assimilation and depth inversion on the Kootenai River, ID, USA, *Journal of Atmospheric and Oceanic Technology*, doi:10.1175/JTECH-D-13-00123.1.
- *McNatt, J.C., Özkan-Haller, H.T.*, Morrow, M., Delos-Reyes, M. (2014), Preliminary Modeling and Analysis of a Horizontal Pressure Differential Wave Energy Converter, *J. Offshore Mechanics and Arctic Engrg*, 136(1), 011901-1–011901-8, doi:10.1115/1.4025437.
- **Özkan-Haller, H.T.** (2014), Vertical variability of undertow and longshore currents outside the surf zone, *J. Waterway, Port, Coastal and Ocean Engrg.*, doi:10.1061/(ASCE)WW.1943-5460.0000219.

2013

- Kurapov, A. and **Özkan-Haller, H.T.** (2013), Bathymetry correction using an adjoint component of a coupled nearshore wave-circulation model, *J. Geophys. Res.*, 118(9), 4673-4688, doi:10.1002/jgrc.20306.
- *Garcia-Medina, G., Özkan-Haller, H.T.*, Ruggiero, P. (2013), An inner-shelf wave forecasting system for the US Pacific Northwest, *Weather and Forecasting*, 28, 681-703, doi:10.1175/WAF-D-12-00055.1.
- *Wilson, G.W., Özkan-Haller, H.T.*, Holman, R.A. (2013), Quantifying length-scale dependence of surf zone advection, *J. Geophys. Res.*, 118 (5), 2393–2407, doi:10.1002/jgrc.20190.
- *Wilson, G.W., Özkan-Haller, H.T.* (2013), Ensemble-based data assimilation for estimation of river depths, *Journal of Atmospheric and Oceanic Technology*, 28(10), doi: 10.1175/JTECH-D-12-00014.1

2012

- *Oskamp, J.* and **Özkan-Haller, H.T.** (2012), Power Calculations for a Passively Tuned Point Absorber Wave Energy Converter on the Oregon Coast, *Renewable Energy*, 45, doi: 10.1016/j.renene.2012.02.004.
- Brekken, T.K.A., **Özkan-Haller H.T.**, and Simmons, A. (2012), A methodology for large-scale ocean wave power time-series generation, *IEEE Journal of Oceanic Engineering, Special Issue on Ocean, Energy*, 37(2), doi: 10.1109/JOE.2012.2187393

- Reimers, C.E., **Özkan-Haller H.T.**, Berg, P., Devol, A., Grosvenor-McCann, K., Sanders, R.D. (2012), Benthic oxygen consumption rates during hypoxic conditions on the Oregon continental shelf: Evaluation of the eddy correlation method, *J. Geophys. Res.*, 117, C2, doi:10.1029/2011JC007564.

2011

- *Lenée-Bluhm, P.*, Paasch, R., **Özkan-Haller, H.T.** (2011), Characterizing the wave energy resource of the US Pacific Northwest, *Renewable Energy*, 36(8), doi: 10.1016/j.renene.2011.01.016.

2010

- *Wilson, G.W.*, **Özkan-Haller, H.T.**, Holman, R.A. (2010), Data assimilation and bathymetric inversion in a 2DH surf zone model, *J. Geophys. Res.*, 115, C12057, doi:10.1029/2010JC006286.

2009

- *Long, J.*, and **Özkan-Haller, H.T.** (2009), Low-frequency characteristics of wave group-forced vortices, *J. Geophys. Res.*, 114, C8, doi:10.1029/2008JC004894.

1997-2008

- Haller, M.C., and **Özkan-Haller, H.T.** (2007), Waves on unsteady currents, *Physics of Fluids*, 19, 126601.
- **Özkan-Haller, H.T.**, and *Brundidge, S.* (2007), Equilibrium beach profile concepts for Delaware beaches, *J. Waterways, Coastal and Ocean Engrg.*, 133, 147-160.
- *Long, J.*, and **Özkan-Haller, H.T.** (2005), Offshore controls on nearshore rip currents, *J. Geophys. Res.*, 110, C12007, doi:10.1029/2005JC003018.
- Holman, R.A., Stanley, J., and **Özkan-Haller, H.T.** (2003), Applying Video Sensor Networks to Nearshore Environment Monitoring, *IEEE Pervasive Computing*, 2, 14-21.
- **Özkan-Haller, H.T.**, and *Li, Y.* (2003), Effects of wave-current interaction on shear instabilities of longshore currents, *J. Geophys. Res.*, 108, No. C5, 10.1029/2001JC001287.
- **Özkan-Haller, H.T.**, Vidal, C., Losada I.J., Medina, R., Losada, M.A. (2001), Standing edge waves on a pocket beach, *J. Geophys. Res.*, 106, 16,981-16,996.
- **Özkan-Haller, H.T.** and Kirby, J.T. (1999), Nonlinear evolution of shear instabilities of the longshore current: A comparison of observations and computations, *J. Geophys. Res.*, 104, 25,953-25,984.
- Chawla, A., **Özkan-Haller, H.T.** and Kirby, J.T. (1998), Spectral wave model for wave transformation over irregular bathymetry, *J. Waterways, Port, Coastal and Ocean Engrg.*, 124, 189-198.
- **Özkan-Haller, H.T.** and Kirby, J.T. (1997), A Fourier-Chebyshev collocation method for the shallow water equations including shoreline runup, *Appl. Ocean Res.*, 19, 21-34.

Peer-reviewed conference publications

- Bothwell, M., K. Furman, Q.-L. Driskill, R. Warner, S. Shaw and T. Özkan-Haller, Empowering Faculty and Administrators to Re-Imagine a Socially Just Institution through Use of Critical Pedagogies, Proceedings of the Collaborative Network for Engineering and Computing Diversity Conference (conference was a collaborative effort among NAMEPA, WEPAN and ASEE), Crystal City, VA, May 2018.

Numerous non peer-reviewed conference manuscripts and published abstracts

PUBLISHED OPINION WRITING

- [It's time to invest in curiosity](#), Fair Observer, April 2021
- [To help address the climate problem, universities must rethink the tenure and promotion system](#), Yale Climate Connections, May 2021.
- [A better approach to diversity training for faculty](#), Higher Ed Dive, June 2021

GRANTS AND CONTRACTS

Current Grants and Contracts –

Lead Principal Investigator

- Ocean State Estimation for Undersea Remote Sensing, Office of Naval Research, 2018-2022, \$869,395.

Co-Principal Investigator

- International, Littoral Bird Tagging, Physical Oceanographic Measurements, Data Assimilative Modeling - As Part of the Distributed, Autonomous, Scalable, Hydrographic Charting and METOC Sampling DRI (lead-PI Lerczak), Office of Naval Research, 2019-2021, \$2,207,824.
- Task Force Ocean: From Sensing to Decision Aids, a Comprehensive Approach (lead-PI Siderius), Office of Naval Research, 2019-2021, \$362,791 (HTO portion).
- OREGON STATE ADVANCE (lead-PI S. Shaw), National Science Foundation, 2014-2022, \$3,499,902.
- Advanced Laboratory and Field Arrays (ALFA) for Marine Energy (lead-PI B. Robertson), Department of Energy, 2017-2021, \$61,699 (HTO portion).

Past Grants and Contracts –

Sole Principal Investigator

- Bathymetry Estimation using Satellite-Based SAR Observations, Office of Naval Research, 2015-2017, \$325,128.
- Laboratory Testing for Improved Survivability and Lower Cost in Submerged Wave Energy Device, Oregon BEST, 2016, \$71,440.
- Improved Survivability and Lower Cost in Submerged Wave Energy Device, M3 Wave LLC (with funding from Department of Energy), 2016-2018, \$91,917.
- Prediction of Hydrodynamics for Unidirectional Flow, Office of Naval Research, 2010-2013, \$276,302.
- Determination of Wave Conditions for Device Testing, Department of Energy, 2009-2010, \$95,153.
- Prediction of Hydrodynamics for Unidirectional Flow, Office of Naval Research, 2008-2010, \$254,784.
- Bridging the Inner Shelf and Nearshore Regions, Oregon Sea Grant, 2008-2010, \$84,663.
- Prediction of Hydrodynamics for Unidirectional Flow, Office of Naval Research, 2006-2008, \$193,364.
- Nearshore Beneficial Use Project – Wave propagation analysis at the south jetty, Army Corps of Engineers, 2006, \$60,501.

- Prediction of Nearshore Waves and Currents: Model Sensitivity, Confidence, and Assimilation, Office of Naval Research, 2005-2007, \$248,067.
- Assimilating Data into a Circulation Model, Office of Naval Research, 2002-2004, \$302,351.
- Extension to ‘Assimilating Data into a Circulation Model’, Office of Naval Research, 2002-2004, \$25,000
- Prediction of the Low Frequency Wave Field on Open Coastal Beaches, Office of Naval Research Young Investigator Award, 2001-2004, \$500,000.

Lead Principal Investigator

- Runups of Unusual Size: Predicting Unexpectedly Large Swash Events, National Science Foundation, 2015-2019, \$799,712.
- Nearshore Wave Predictions along the Oregon Coast, Oregon Sea Grant, 2010-2013, \$217,364.
- Baseline Observations and Modeling for the Reedsport Wave Energy Site, Oregon Wave Energy Trust, 2009, \$163,351.
- Flow and Transport through a rippled sandy bed, Oregon Sea Grant, 2006-2008, \$189,839.
- Collaborative Research: CROSSTEX - An Experimental Study of Onshore Bar Movement, National Science Foundation, 2004-2008, \$528,711.
- An experimental Study on Beach Recovery, Oregon Sea Grant, 2004-2006, \$174,674.

Co-Principal Investigator (HTO portions of budgets are reported when possible)

- Advanced Laboratory and Field Arrays (ALFA) for Marine Energy (lead-PI B. Batten), Department of Energy, 2014-2017, \$207,624 (HTO portion).
- Remote Sensing and Data-Assimilative Modeling in the Littorals (lead-PI: A. Jessup, UW), Office of Naval Research, 2010-2015, \$1,219,751 (HTO portion).
- Continental Shelf Benthic Oxygen Fluxes Determined by Eddy Correlation in the Presence of Wave Motions (lead-PI: C. Reimers), National Science Foundation, 2011-2014, \$791,126.
- Collaborative Research: Three-Dimensional Surf Zone Eddies, National Science Foundation, 2011-2014, \$395,826 (HTO portion).
- NW National Marine Renewable Energy Center (lead-PI, R. Paasch), Department of Energy, 2008-2015, \$601,102 (HTO portion).
- Benchmark Modeling of Near-field and Far-field Effects of Wave Energy Arrays (lead-PI: M. Haller), Department of Energy, 2010,2012, \$143,867 (HTO portion).
- Columbia River South Shore Wave Model (lead-PI: M. Haller), Army Corps of Engineers, 2009, \$26,725 (HTO portion).
- MRI: Acquisition of a Large-Stroke, Piston-Type Wavemaker for Coastal Hazards Research and Education (Lead-PI: Daniel Cox), National Science Foundation, 2007-2009, \$1,132,800.
- Investigating the Causes of ‘Hot Spot’ Beach Erosion (Lead-PI: M. Haller), Oregon Sea Grant, 2005-2007, \$160,995.
- A Pilot Coastal Ocean Observatory for the Estuaries and Shores of Oregon and Washington (Lead-PI: Antonio Baptista, OHSU), National Oceanic and Atmospheric Administration, 2004-2007, \$130,000.
- Optical Imaging of Nearshore Current and Shear Wave Dynamics (Lead-PI: Rob Holman), National Science Foundation, 2001-2004, \$458,262.

- Development and Verification of a Comprehensive Community Model for Physical Processes in the Nearshore Ocean (Lead-PI: J. Kirby, UD), National Ocean Partnership Program, 2002-2004, \$220,959 (HTO portion).

TEACHING AND ADVISING

Oregon State University

- OC505 Reading and Conference – Nearshore Processes, 1 credit, Spring 2002
- OC599/CE607 Seminar – Recent Advances in Coastal Engineering and Nearshore Oceanography, 1 credit, Spring 2003.
- OC599 Matlab for Oceanographers, 2 credits, Winter 2009.
- OC662 Nearshore Hydrodynamics, 3 credits, Winter 2004, Fall 2006, Winter 2010, Fall 2011, Winter 2014, Winter 2016.
- CE /OC635 – Applied Modeling of Nearshore Processes, 4 credits, Winter 2003, Winter 2005, Winter 2007, Spring 2011, Spring 2013, Spring 2015.
- OC332 – Coastal Oceanography, 3 credits, Winter 2017

University of Michigan

- NA 320 Marine Hydrodynamics, 4 credits, Fall 1998, Fall 1999
- NA455 Environmental Nearshore Dynamics, 3 credits, Winter 1999
- NA 391 Marine Engineering Laboratory, 4 credits, Winter 2000

International

- Invited short course – Nearshore Hydrodynamics (20 hours teaching), University of Cantabria, Spain, June 2006.

Advising

- REU students – Emi Fujii, Sarah Brundidge, Andrew Collier
- M.S. students (thesis option) – Jamie Lescinski (M.Oc.E., 2004), Joseph Long (M.Oc.E., 2005), Lisa Andes (M. Oc.E., 2007), Greg Wilson (M.S., 2009), Jeff Oskamp (M.Oc.E., 2011), Gabriel Garcia-Medina (M.S., 2012), Cameron McNatt (M.Oc.E., 2012), Sarah Kassem (M.S., 2012), Kyle Landon (M.Oc.E., 2012), Rebecca Aiken, (M.S., 2014), Manuel Garcia Castano (2015), Ashley Ellenson (2017), Fadia Ticona Rollano (2018), Spencer Harper (2020), Kaitlan Angel (current)
- Ph.D. students – Joseph Long (2009), Greg Guannel (2009), Greg Wilson (2013), Gabriel Garcia-Medina (2017), Chuan Li (2021)
- Postdoctoral – Haiying Jiao (2002-2005), Çiğdem Akan (2012-2014), Saeed Moghimi (2012-2015), Cheng Zhang, (2020-2021)
- International Scholar – Miguel Ortega-Sanchez, University of Granada (July-September 2006), Jung Lee, Sungkyunkwan University, Korea (January-August 2010).

Member of numerous M.S. and Ph.D. student committees

Faculty Adviser to Lego Robotics Team (Franklin Middle School) with a project related to sea level rise (Fall 2005)

SERVICE

National Service:

Member, Board on Coastal Engineering Research (2022-present)

Member, NOAA Hydrographic Survey Review Panel (2022-present)

Review panel member, NSF Physical Oceanography Review Panel, 2020.

Testimony to the U.S. House Subcommittee on Coast Guard and Maritime Transportation Hearing on May 8, 2018 regarding “Blue Technologies: Use of New Maritime Technologies to Improve Efficiency and Mission Performance.”

Member, National Academies of Science, Engineering, and Medicine Ocean Studies Board – 2012-2018

Chair, National Academies of Science, Engineering, and Medicine, Committee on Long-term evolution of the U.S. Gulf Coast, 2017-2018.

Speaker, NSF Workshop on Coastal and Estuarine Modeling, May 2018.

Participant, NSF Workshop on Coasts and People (CoPe), September 2018.

Organizing group member – Workshop on “The Past and Future of Nearshore Processes Research”, October 2013.

Panel Member, NSF Coastal SEES Review Panel, 2014.

Science Advisory Team, Lower Columbia Solutions Group, 2010-2012.

Member and co-author, “An Evaluation of the U.S. Department of Energy's Marine and Hydrokinetic Resource Assessments,” National Research Council, 2010-2012.

Panel Member, NSF Particulate Flow and Fluid Mechanics Panel, May 2009.

Steering committee – 2009 Gordon conference on Coastal Circulation

Nominated for AGU Physical Oceanography secretary, Fall 2007

Presentation to the Ocean Studies Board, July 2002

Convener and Chair – 1998 AGU Fall Meeting Special Session: Nearshore Processes.

Reviewer – Journal of Fluids Mechanics, Physics of Fluids, Journal of Geophysical Research, Journal of Waterways, Ports, Coastal and Ocean Engineering, Reviews of Geophysics, Journal of Computational Physics, Journal of Offshore Mechanics and Arctic Engineering, Journal of Marine Research.

Reviewer – National Science Foundation (Physical Oceanography and Engineering Programs), Seagrant

University Service.

OSU Committee to Review Promotion & Tenure (P&T) Guidelines for Innovation and Entrepreneurship (I&E) Inclusion, co-chair – 2019-2021.

OSU President search committee, search advocate – May-December 2019.

OSU SP4.0 Strategic Planning Steering committee member – January 2018-October 2018

OSU President’s and Provost’s Leadership Council on Equity, Inclusion, and Social Justice, September 2017-June 2018.

Faculty Senate, Senator on behalf of the College of Earth, Ocean, and Atmospheric Sciences, 2016-2018

Presidential Commission for the Status of Women (2011-2013)

Chair of the Scholarship and Awards Committee (2012-2013)

Point of contact – Memorandum of Understanding between OSU and the University of Granada

Faculty Advisor – Turkish Student Association (2005-2008)

Search committee member for Director of NNMREC (now P MEC) – October 2017-June 2018

Search committee member for AD for Faculty Advancement, College of Engineering – January 2018-June 2018.

Search Committee – Interim CEOAS Dean (2015)

Search Committee – School Head for the School of Civil and Construction Engrg (2014-2015)

Search Committee – Earth System History position (2013-2015)

CEOAS College Advisory Committee G&G representative (2014-2015)

CEOAS Faculty Hiring committee (2012-2013)

CEOAS College Advisory Committee G&G representative (alternate) (2012-2013).

CEOAS Next Steps Committee (2010-2011)

COAS Promotion and Tenure Committee (2010-2011)

COAS Dean’s Advisory Committee (2009-2010)

COAS Peer Review of Teaching committee (2008-2009)

COAS Committee on High Performance Computing (2006)

COAS Instructional Programs committee (2004-2006)

COAS Peer Review of Teaching committee (2003-2004)

COAS Faculty Advisory committee (2002-2004)

COAS Computer committee (2002-2003)

COAS Promotion and Tenure committee (2001-2002)

4 new faculty search committees (in CEOAS and College of Engineering)

4 Research Associate search committees (in CEOAS and College of Engineering)

Organizer – seminar series “Recent Advances in Coastal Engineering and Nearshore Oceanography”, Spring 2003.

Organizer – Brownbag seminar series on Nearshore Oceanography/Coastal Engineering (2001-present)

Participant – Luncheon series organized by VP for University Advancement, 2006.

Participant – meetings with VP for University Advancement on Broader Implications of Research, 2007

Presentations on Nearshore Processes to

COAS Advisory Board, May 2002

Vetlesen Foundation representative, October 2002

Service to the Public (professionally related).

Engagement with National Weather Service regarding NSF Runups of Unusual Size (ROUS) project

Research interface with Pacific Northwest National Laboratories and Sandia National Laboratories

Columbia River Maritime Museum Advisory Board trustee, 2009-2015.

Featured in news segments about COVID-19 impacts.

Interviewed for Think Out Loud on the impacts of COVID-19 on research universities, July 1, 2020

Featured in multiple documentaries related to sneaker wave fatalities, rip current hazards, tsunami hazards.

Featured in documentary “Space, Hope, and Charity,” to be released January 2023

Featured in documentary “Mysteries of the Missing: Ghost Ship of the Desert,” Science Channel, September 2017.

Featured in Oregon Field Guide segment “Oregon sneaker waves can take deadly toll,” October 2013.

Featured in documentary “Ancient Mega Tsunami,” The National Geographic Channel, July 2010.

Featured in documentary “Lost Tsunami,” The History Channel, May 2008.

Featured in news cast “One Oregon Coast riddle solved, more surface” on KGW and KEZI9, February 21,22, 2008.

Featured in video “Beach Safety Basics: Rip Currents”, Oregon Sea Grant, September 2007.

Featured on a banner as part of the university campaign “Faces of OSU”, August 2007.

Featured in video “Exploring Beach Recovery”, Oregon Sea Grant, September 2006.

Featured in educational video “Living on the Edge: Building and Buying Property on the Oregon Coast” geared towards potential homeowners on the Oregon coast, Fall 2004.

Featured regularly in multiple news articles related to sneaker wave fatalities, rip current hazards, tsunami hazards.

Featured in “Why Sneaker Waves Are So Insidious” in Bay Nature – November 2022

Featured in “A boy was swept into the ocean. His story reveals the hidden danger of California’s sneaker waves” in San Francisco Chronicle – May 2021

Featured in “How to Survive a Sneaker Wave” in Sierra Club – November 2020

Featured in “Woman crushed by driftwood log caught in ‘sneaker wave’” in Epoch Times – May 2019

Featured in news release “Deadly waves sweep father, son out to ocean, show dangers” – January 2017

Featured in Engineering Out Loud Podcast – Oct 2017

Quoted in article “New model uses off-the-shelf technology to forecast rip currents,” in Environmental Monitor, March 19, 2013.

Quoted in article “Deadlier than a hurricane: How the science of rip current prediction could save lives,” Pacific Standard, February 8,2013.

Quoted in article “Scientists issue caution about hazards of extreme tides, subsequent surges” in Newport News Times, November 23, 2007.

Quoted in article “Time for tidal extremes” in The Register-Guard, November 22, 2007.

Quoted in article “Extreme tides at coast prompt warnings” in The Statesman Journal, November 22, 2007.

Quoted in article “OSU to install country’s largest wavemaker” in The Barometer, OSU, September 26, 2007.

Quoted in article “New Wave” in the Portland Monthly Magazine, May 2006.

Featured in article on “Women in Oceanography” Oceanography Magazine, Vol. 18, No. 1, Special Issue: Women in Oceanography, March 2005.

Featured in COAS publication “Wonders of the Earth”, December 2007.

Quoted in article “Sewing up the mysteries of rip currents” in Oregonian, June 2007.

Assisted in information gathering about possible fate of swimmer in South Africa, May 2007.

Invited Speaker – House Oceans Caucus Luncheon Seminar “Efforts to understand and predicting coastal damage by storms”, Library of Congress, May 2003.