Daniel T. Cox

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1. Professional Preparation

University of Delaware	Civil Engineering	B.S., 1987
University of Delaware	Civil Engineering	M.S., 1989
University of Delaware	Civil Engineering	Ph.D., 1995

2. Appointments

Director	Cascadia Lifelines Program, Oregon State University	2016 – now
Assoc. Director	Center for Risk-Based Community Resilience Planning	2014 – now
Professor	Civil and Constr. Engineering, Oregon State University	2009 – now
Adjunct Prof.	College of Earth, Ocean and Atmospheric Science	2007 – now
Visiting Scholar	Disaster Prevention Research Inst., Kyoto Univ., Japan	2010 – 2011
Director	Hinsdale Wave Res. Laboratory, Oregon State University	2002 – 2010
Assoc. Prof.	Civil Engineering, Oregon State University	2002 – 2009
Assoc. Prof.	Civil Engineering, Texas A&M University	2001 – 2002
Assistant Prof.	Civil Engineering, Texas A&M University	1995 – 2001
Res. Assistant	Center for Applied Coastal Research, Univ. of Delaware	1991 – 1995
Visiting Scholar	Coastal Engineering Laboratory, Kyoto University, Japan	1989 – 1991
Res. Assistant	Center for Applied Coastal Research, Univ. of Delaware	1987 – 1989

3. Professional Awards and Recognition

Co-author of two outstanding papers, *J. Waterway Port Coast and Ocean Engr.*,	2016
Co-author of paper awarded ASCE/SEI Raymond C. Reese Research Prize.,	2015
Co-author of outstanding paper, *J. of Performance of Constructed Facilities.*,	2013
Outstanding Research Leadership Award, OSU, College of Engineering.,	2013
Japan Society for the Promotion of Science, Long-Term Invitation Fellow.,	2010-2011
Research Collaboration Award, Oregon State University College of Engineering.,	2006
Japan Society for the Promotion of Science, Short-Term Invitation Fellow.,	1999
NSF Faculty Early Career Development (CAREER) Award.,	1998

4. Professional Activities

Journal Editor:

Associate Editor, *Coastal Engineering*	2017 – now
Associate Editor, *Sustainable and Resilient Infrastructure*	2015 – now
Associate Editor, *Journal of Waterway, Port, Coastal and Oc. Engrg*	2012 – 2017
Associate Editor, *Coastal Engineering Journal*	2011 – 2013
Associate Editor, *KSCE Journal of Civil Engineering*	2011 – 2013
Associate Editor, *Coastal Engineering Journal*	2001 – 2003

Journal Reviewer:

Applied Geography
Applied Ocean Research
Climate Change
Coastal Engineering
Coastal Engineering Journal
Continental Shelf Research
Earthquake Spectra
Engineering Mechanics
Estuarine, Coastal and Shelf Science
European Journal of Mechanics - Fluids
Experiments in Fluids
Intern. Society of Offshore and Polar Engrs.
Geomorphology
Journal of Coastal Research
Journal of Engineering Mechanics
Journal of Geophysical Res. – Ocean
Journal of Geophysical Res. – Earth Surface
Journal of Hydraulic Engineering
Journal of Hydraulic Research
Journal of Oc. Engrg. and Marine Energy
Journal of Performance of Constr. Facilities
Journal of Wtwy, Port, Coast. and Oc. Engrg
Marine Geology
Natural Hazards
Ocean Engineering
Ocean Modeling
Structures

Committees and Service:

Natural Hazards Engrg. Research Infrastructure (NHERI) Council Chair.	2016 – now
ASCE Standards, Flood Load Subcommittee (Chair).	2017 – now
ASCE / COPRI Coastal Engineering Research Council	2015 – now
NRC Committee on USACE Coastal Risk Reduction	2013 – 2014
ASCE Standards, Flood Load Subcommittee member	2013 – 2016
ASCE / COPRI Coastal Structures Committee (Chair),	2013 – 2015
ASCE Standards, Tsunami Loads and Effects Subcommittee	2011 – 2016
Network for Earthquake Engineering Simulation (NEES), committee	2010 – 2014
United States Senate Testimony, Subcommittee on Tsunami Preparedness	2005
ASCE / COPRI Board of Governors	2002 – 2004
ASCE / COPRI Communications Committee	1997 – 2002

Conferences/Workshops

NSF NHERI Workshop, Corvallis OR, 2015, 2017
Organizer: *ASCE/COPRI Coastal Structures 2015*
Session chairs: *Waves 2001, ICCE 2002, CStr 2007, NEES 2008, CStr 2011*, *ICCE 2014*

5. Courses Taught (since 09/2002)

1. CE 311 Fluid Mechanics
2. CE 313 Fluid Hydraulics
3. CE 4/511 Introduction to Ocean Engineering
4. CE 4/515 Coastal Infrastructure
5. CE 631 Linear Wave Theory II
6. CE 642 Random Waves
7. CE 645 Wave Forces
8. CE 647 Ocean and Coastal Measurements

6. Publications

6.1 Refereed Papers

1. Park, H., Do, T., Tomiczek, T., Cox, D.T., van de Lindt, J.W. "Numerical Modeling of Non-breaking, Impulsive Breaking, and Broken Wave Interaction with Elevated Coastal Structures: Laboratory Validation and Inter-Model Comparisons," *Ocean Engineering* (submitted 9/2017)
2. Tomiczek, T., Wyman, A., Park, H., Cox, D.T. "Application and Modification of Goda's Formulae to Estimate Horizontal and Vertical Forces on Elevated Coastal Structures. Part 1: Nonbreaking Waves," *Coastal Engineering* (submitted 8/2017)
3. Attary, N., van de Lindt, J.W., Barbosa, A.R., Cox, D.T., Unnikrishnan, V. "Performance-Based Tsunami Engineering for Risk Assessment of Structures Subjected to Multi-Hazards: Tsunami Following Earthquake," (submitted 3/2017)).
4. Chen, Y.G., Chen, Y., Park, H., Weber, B., Reimer, J., Cox, D.T., Corcoran, P. "An Integrated Engineering-Economic Model for the Assessment of Regional Vulnerability to Natural Disasters" *Natural Hazards Review* (submitted 7/2016).
5. Tomiczek, T., Park, H., Cox, D.T., van de Lindt, J.W., Lomonaco, P. "Experimental Modeling of Horizontal and Vertical Wave Forces on an Elevated Coastal Structure," *Coastal Engineering*, (accepted).
6. Alam, M.S., Barbosa, A.R., Scott, M.H., Cox, D.T., van de Lindt, J.W. "Development of Physics-based Tsunami Fragility Functions considering Structural Member Failures" *J. of Structural Engineering*, (accepted).
7. Park, H., Cox, D.T., Alam, M.S., Barbosa, A.R., (2017) "Probabilistic seismic and tsunami hazard analysis (PSTHA) conditioned on a mega-thrust rupture of the Cascadia Subduction Zone," *Frontiers in the Built Environment*, 3, 32.
8. Anderson, D., Cox, D.T., Mieras, R., Puleo, J., Hsu,T.-J. (2017) "Observations of wave-induced pore pressure gradients and bed level response on a surf zone sandbar," *Journal of Geophysical Research – Oceans*, 122, doi:10.1002/2016JC012557.
9. Kriebel, D. Lynett, P., Cox, D.T., Petroff, C., Robertson, I., Chock, G. (2017) "Energy Method for Approximating Overland Flows" *Journal of Waterway, Port, Coastal and Ocean Engineering*, 143, 5, 04017014.
10. Mieras, R., Puleo, J., Anderson, D., Cox, D.T., Hsu,T.-J. (2017) "Large-scale experimental observations of wave-induced sediment transport on a sandbar under skewed-asymmetric waves," *Journal of Geophysical Research – Oceans*, DOI: 10.1002/2016JC012438.
11. Mostafizi, A., Wang, H., Dong, S., Cox, D.T., Cramer, L (2017) "Agent-Based Tsunami Evacuation Modeling with Unplanned Network Disruptions for Evidence-driven Resource Allocation and Planning Strategies," *Natural Hazards*, DOI: 10.1007/s11069-017-2927-y
12. Attary, N., van de Lindt, J., Unnikrishnan, V., Barbosa, A., Cox, D. (2017) "Performance-Based Tsunami Engineering Methodology for Risk Assessment of Structures," *Engineering Structures*, 141,15, 676-686.
13. Park, H., Cox, D.T., Barbosa, A. (2017) "Comparison of inundation depth and momentum flux based fragilities for probabilistic tsunami damage assessment and uncertainty analysis," *Coastal Engineering*, 122, 10-26.

14. Zhou, Z., Hsu, T.-J., Cox, D.T., Liu, X. (2016) "Large-eddy simulation of wave-breaking induced turbulent coherent structures and suspended sediment transport on a barred beach," *Journal of Geophysical Research – Oceans*, DOI: 10.1002/2016JC011884

15. Attary, N., van de Lindt, J.W., Unnikrishnan, V., Barbosa, A., and Cox, D.T. (2016) "Methodology for Development of Physics-Based Tsunami Fragilities," *J. of Structural Engineering* DOI: 10.1061/(ASCE) ST.1943-541X.0001715.

16. Gidaris, I., Padgett, J.E., Barbosa, A.R., Chen, S., Cox, D.T., Webb, B., Cerato, A. (2016) "Multiple-Hazard Fragility and Restoration Models of Highway Bridges for Regional Risk and Resilience Assessment in the U.S.: State-of-the-Art Review," *J. Structural Engineering* 10.1061/(ASCE)ST.1943-541X.0001672

17. Park, H. and Cox, D.T. (2016) "Probabilistic Assessment of Near-field Tsunami Hazards: Inundation Depth, Velocity, Momentum Flux, Arrival Time, and Duration Applied to Seaside, Oregon," *Coastal Engineering*, 117, 79-96.

18. Do, Trung, van de Lindt, J., Cox, D.T. (2016) "Performance-Based Design Methodology for Inundated Elevated Coastal Structures Subjected to Wave Load Engineering Structures," *Engineering Structures*, 117, 250 – 262.

19. Chen, X., Zhan, J., Chen, Q., Cox, D.T. (2016) "Numerical Modeling of Hurricane-Induced Wave Forces on Movable Bridge Decks", *Bridge Engineering* 10.1061/(ASCE)BE.1943-5592.0000922.

20. Wu, W.-C., Ma, G., Cox, D.T. (2016) "Modeling wave attenuation induced by the vertical density variations of vegetation," *Coastal Engineering*, 112, 17-27.

21. Park, H., Cox, D.T. (2015) "Empirical wave run-up formula for wave, storm surge and berm width," *Coastal Engineering*, 115, 67-78.

22. Wu, W.-C., Cox, D.T. (2015) "Effects of vertical variation in vegetation density on wave attenuation," *Journal of Waterway, Port, Coastal and Ocean Engineering*, 142, 2.

23. Yoon, H.D., Cox, D.T., and Mori, N. (2015) "Parameterization of time-averaged suspending sediment concentration in the nearshore," *Water, 7*(11), 6228-6243.

24. Wang, H., Mostafizi, A., Cramer, L., Cox, and Park, H., (2015) "Agent-based modeling of multimodal nearfield tsunami evacuation: Decision making and life safety," *Transportation Research Part C: Emerging Technologies*.

25. Wu, W.-C., Cox, D.T. (2015) "Effects of wave nonlinearity on wave attenuation by vegetation," *Estuarine, Coastal and Shelf Science*, 164, 443 – 450.

26. Lemein, T., Cox, D.T., Albert, D., Mori, N. (2015) "Accuracy of Optical Image Analysis Compared to Conventional Vegetation Measurements for Estimating Morphological Features of Emergent Vegetation," *Estuarine, Coastal and Shelf Science*. 115, 66 – 74.

27. Feagin, R.A., Figlus, J., Zinnert, J.C., Sigren, J., Martínez, M.L., Silva, R., Smith, W.K., Cox, D.T., Young, D.R., Carter, G. (2015) "Going with the flow or against the grain? The promise of vegetation for protecting beaches, dunes, and barrier islands from erosion," *Frontiers in Ecology and the Environment,* 13, 203–210.

28. Ko, H., Cox, D.T., Riggs, R., Naito, C. (2015) "Hydraulic Experiments on Impact Forces from Tsunami-Driven Debris," *Journal of Waterway, Port, Coastal and Ocean Engineering,* 141, 3. DOI: 10.1061/(ASCE)WW.1943-5460.0000286. (**Outstanding Paper 2015**)

29. Rueben, M., Cox, D.T., Holman, R., Shin, S., and Stanley, J. (2015) "Optical Measurements of Tsunami Inundation and Debris Movement in a Large-Scale Wave Basin," *Journal of*

Waterway, Port, Coastal and Ocean Engineering, 10.1061/(ASCE)WW.1943-5460.0000267. (**Outstanding Paper 2015**)

30. Park, H., Cox, D.T., and Petroff, C. (2014) "An empirical solution for tsunami runup on compound slopes," *Natural Hazards,* 76, 1727–1743.
31. Shin, S., Yoon, H.-D., Cox, D.T. (2014) "Numerical Modeling of Surf Zone Hydrodynamics over a Moveable Bed," In: Stephen, P.L. and Lee, J.L. (eds.), *Journal of Coastal Research,* Special Issue No. 72, 139 – 174.
32. Riggs, H. R., Cox, D.T. T., Naito, C. J., Kobayashi, M. H., Piran A., P., Ko, H. T.-S. and Khowitar, E. (2014) "Water-driven debris impact forces on structures: experimental and theoretical program" *J. Offshore Mechanics and Arctic Engineering*, 136, doi:10.1115/1.4028338.
33. Wiebe, D., Park, H., Cox, D.T. (2014) "Application of the Goda Pressure Formula to Horizontal Wave Loads on Elevated Structures," *KSCE Journal of Civil Engineering* DOI 10.1007/s12205-014-0175-1.
34. Wiebe, D.M., and Cox, D.T. (2014) "Application of Fragility Curves to Estimate Damage and Economic Loss at a Community Scale: A Case Study of Seaside, Oregon," *Natural Hazards*, 71, 2043 – 2061.
35. Linton, D.L., Gupta, R., Cox, D.T., van de Lindt, J. (2014) "Load Distribution in Light-Frame Wood Buildings under Experimentally Simulated Tsunami Loads," *Journal of Performance of Constructed Facilities.* 10.1061/(ASCE)CF.1943-5509.0000487.
36. Blackmar, P.J., Cox, D.T., Wu, W.-C. (2014) "Laboratory Observations and Numerical Simulations of Wave Height Attenuation in Heterogeneous Vegetation," *Journal of Waterway, Port, Coastal and Ocean Engineering*, 140(1), 56–65.
37. Naito, C., Cercone, C., Riggs, R., and Cox, D.T. (2013) "A Procedure for Site Assessment of the Potential for Tsunami Debris Impact," *Journal of Waterway, Port, Coastal and Ocean Engineering*. 10.1061/(ASCE)WW.1943-5460.0000222.
38. Rhinefrank, K., Schacher, A., Prudell, J., Cruz, J., Jorge, N., Stillinger, C., Naviaux, D., Brekken, T., von Jouanne, A., Newborn, D., Yim, S., Cox, D.T. (2013) "Numerical Analysis and Scaled High Resolution Tank Testing of a Novel Wave Energy Converter," *Journal of Offshore Mechanics and Arctic Engineering,* 135, 4, DOI: 10.1115/1.4024886.
39. Park, H., Cox, D.T., Lynett, P., Wiebe, D., Shin, S. (2013) "Tsunami Inundation Modeling in Constructed Environments: A Physical and Numerical Comparison of Free-Surface Elevation, Velocity, and Momentum Flux," *Coastal Engineering*, 79, 9-21.
40. Mori, N., Cox, D.T., Yasuda, T., Mase, H. (2013) "Overview of the 2011 Tohoku Earthquake Tsunami Damage and relation with Coastal Protection along the Sanriku Coast," *Earthquake Spectra*, 29, S1, 127-143.
41. Mase, H., Kimura, Y., Yamakawa, Y., Yasuda, T., Mori, N., Cox, D.T. (2013) "Were Coastal Defense Structures Broken Completely by Unexpectedly Huge Tsunami - Field Survey" *Earthquake Spectra*, 29, S1, 145-160.
42. Albert, D., Cox, D.T., Lemein, T., and Yoon, H.D (2013) "Characterization of *Schoenoplectus pungens* in a Great Lakes Coastal Wetland and a Pacific Northwest Estuary", *Wetlands*, 33, 3, 445-458.
43. Yoon, H.-D., D. T. Cox, and M. Kim, (2013) "Prediction model for sediment suspension using artificial neural network", *Coastal Engineering*, 71, 78 - 86.

44. Naito, C., Cox, D.T., Yu, K., Brooker, H. (2013) "Fuel Storage Container Performance During the 2011 Tohoku Japan Tsunami," *Journal of Performance of Constructed Facilities*, 27, 4, 373-380. (**Outstanding paper, 2013**)

45. Linton, D., Gupta, R., Cox, D.T., van de Lindt, J., Oshnack, M.E., Clauson, M., (2013) "Evaluation of tsunami loads on wood frame walls at full scale," *Journal of Structural Engineering*, 139, Special Issue: NEES2: Advances in Earthquake Engineering, 1318 – 1325. (**ASCE/SEI Raymond C. Reese Research Prize**, 2015)

46. Kim, K., Park, H., Shin, S., Cox, D.T. (2012) "Three-Dimensional Laboratory Experiments for Tsunami Inundation in a Coastal City", *Journal of Korean Society of Coastal and Ocean Engineers*, 24(6), 400-403 (in Korean)

47. Park S., J.W. van de Lindt, D. Cox, R. Gupta, (2012) "Concept of Community Fragilities for Tsunami Coastal Inundation Studies," ASCE *Natural Hazards Review* 10.1061/(ASCE)NH.1527-6996.0000092.

48. Yoon, H.-D., and D. T. Cox, (2012) "Cross-shore variation of intermittent sediment suspension and turbulence induced by depth-limited wave breaking", *Continental Shelf Research*, 47, 15, 93-106.

49. Park S., J.W. van de Lindt, R. Gupta, and D. Cox. (2012) "Method to Determine Locations of Tsunami Vertical Evacuation Shelters," *Natural Hazards*, 63, 2, 891 - 908.

50. Park, S., J.W. van de Lindt, D. Cox, R. Gupta , and F. Aguiniga, (2012) "Successive earthquake-tsunami analysis to develop collapse fragilities," *Journal of Earthquake Engineering*, 16, 6, 851 – 863.

51. Zarnetske, P.L, Hacker, S.D., Seabloom, S.W., Ruggiero, P., Killian, J.R., Maddux, T.B., Cox, D.T. (2012) "Biophysical feedback mediates effects of invasive grasses on coastal dune shape," Ecology, 93, 1439–1450.

52. Lehrman, J.B., Higgins, C., Cox, D.T. (2012) "Performance of Highway Bridge Girder Anchorages under Simulated Hurricane Wave Induced Loads," *Journal of Bridge Engineering,* 17, 2, 259 – 271.

53. Thomas, S. and Cox, D.T. (2011) "Influence of Finite Width Seawalls for Tsunami Loading on Coastal Structures," *Journal of Waterway, Port, Coastal, and Ocean Engineering* , 138, 3, 203 – 214.

54. Bradner, C., Schumacher, T., Cox, D.T., Higgins, C. (2011) "Large-scale physical modeling of wave forces on bridge superstructures," *Journal of Waterway, Port, Coastal, and Ocean Engineering*, 137, 3 – 11.

55. Rueben, M., Holman, R., Cox, D.T., Killian, J., Stanley, J. (2010) "Optical measurements of tsunami inundation through an urban waterfront modeled in a large-scale laboratory basin" *Coastal Engineering*, 58(3): 229-238.

56. Yoon, Y.D., Cox, D.T. (2010) "Large-scale laboratory observations of wave breaking turbulence on a moveable bed with vertically employed acoustic-Doppler velocimeters," *J Geophysical Research*, doi: 10.1029/2009jc005748.

57. Suzuki, T., Shin, S., Cox, D.T. and Mori, N. (2009). "Temporal-spatial characteristics of a pressure gradient on a barred beach," *Journal of Waterway, Port, Coastal, and Ocean Engineering*, 136, 6, 327 - 336.

58. Oshnack, M. B., Aguiniga, F., Cox, D.T., Gupta, R., van de Lindt, J. (2009) "Effectiveness of small onshore seawalls in reducing forces induced by tsunami bore: Large-scale experimental study" *J Disaster Research*, 4, 6, 382 – 390.
59. Van de Lindt, J.W., Gupta, R., Cox, D.T., Wilson, J.S. (2009) "Wave impact study on residential building," *J Disaster Research*, 4, 6, 419 – 426.
60. Scott, N.V., Hsu, T.-J., and Cox, D.T. (2009) "Steep wave, turbulence, and sediment concentration statistics beneath a breaking wave field and their implications for sediment transport," *Continental Shelf Research*, 29, 2303-2317.
61. Suzuki, T., Mori, N., Cox, D.T. (2009) "Statistical modeling of near-bed pressure gradients on a natural beach," *Coastal Engineering Journal,* 51, 20, 101 –121.
62. Baldock, T., Cox, D.T., Maddux, T., Killian, J., Fayler, L. (2009) "Kinematics of breaking tsunami wavefronts: A data set from large scale laboratory experiments", *Coastal Engineering* 56 (5), 506-516.
63. Yim, S., Cox, D.T., and Park, M. (2009) "Experimental and Computational Activities at the Oregon State University NEES Tsunami Research facility," *Science of Tsunami Hazards*, 28, 1, 1-14.
64. Suzuki, T., Shin, S., Mori, N. and Cox, D.T. (2008) "Statistical modeling of pressure gradient on a barred beach," *Coastal Engineering Journal*, 50, 2, 123-142.
65. Shin, S., Cox, D.T. T. (2006) "Laboratory observations of inner surf and swash zone hydrodynamics on a steep slope." *Continental Shelf Research* 26, 561 – 573.
66. Suh, K.D., Shin, S., and Cox, D.T. (2006) "Hydrodynamic characteristics of pile-supported vertical wall breakwaters." *Journal of Waterway, Port, Coastal, and Ocean Engineering,* 2, 83 – 96.
67. Scott, C.P., D.T. Cox, T.B. Maddux, and J.W. Long. (2005) "Large-scale laboratory observations of turbulence on a fixed barred beach," *Meas. Sci. Technol*. 16, 1903-1912.
68. Mori, N. and Cox, D.T. (2003) "Statistical modeling of overtopping for extreme waves on fixed deck," *Journal of Waterway, Port, Coastal, and Ocean Engineering*, 129 (4): 165-173.
69. Mori, N. and Cox, D.T. (2003) "Dynamic properties of green water event in the overtopping of extreme waves on a fixed deck," *Ocean Engineering*, 30 (16): 2021-2052.
70. Cox, D.T., and Shin, S. (2003) "Laboratory measurements of void fraction and turbulence in the bore region of surf zone waves," *Journal of Engineering Mechanics*, 129(10), 1197-1205.
71. Cox, D.T., and Ortega, J.A. (2002) "Laboratory measurements of green water overtopping a fixed deck," *Ocean Engineering*, 29, 1827-1840.
72. Cox, D.T., Tissot, P., and Michaud, P., (2002) "Water level observations and short-term predictions including meteorological events for the entrance of Galveston Bay, Texas," *Journal of Waterway, Port, Coastal, and Ocean Engineering*. 128, 1, 21-29.
73. Cox, D.T. and Anderson, S.L., (2001) "Statistics of intermittent surf zone turbulence and observations of large eddies using PIV," *Coastal Engineering Journal*, 43, 2, 121-131.
74. Cox, D.T. and Scott, C.P., (2001) "Exceedance probability for wave overtopping on a fixed deck," *Ocean Engineering*, 28, 707-721.

75. Cox, D.T. and Kobayashi, N. (2000) "Identification of Intense, Intermittent Coherent Motions under Shoaling and Breaking Waves," *Journal of Geophysical Research*, 105, C6, 14223-14236.

76. Cox, D.T. and Kobayashi, N. (1998) "Application of an Undertow Model to Irregular Waves over Plane and Barred Beach," *Journal of Coastal Research*, 14 (4), 1314-1324.

77. Cox, D.T. and Kobayashi, N. (1997) "Kinematic Undertow Model with Logarithmic Boundary Layer," *Journal of Waterway, Port, Coastal, and Ocean Engineering*, ASCE, 123 (6), 354-360.

78. Cox, D.T. and Kobayashi, N., and Okayasu, A. (1996) "Bottom Shear Stress in the Surf Zone," *Journal of Geophysical Research*, 101 (C6), 14337-14348.

79. Kobayashi, N., Cox, D.T., and Wurjanto, A. (1991) "Permeability Effects on Irregular Wave Runup and Reflection**,**" *Journal of Coastal Research*, 7(1), 127-136.

80. Kobayashi, N., Cox, D.T., and Wurjanto, A. (1990) "Irregular Wave Reflection and Runup on Rough Impermeable Slopes," *Journal of Waterway, Port, Coastal, and Ocean Engineering*, ASCE, 116(6), 708-726.

81. Kobayashi, N., Wurjanto, A., and Cox, D.T. (1990) "Irregular Waves on Rough Permeable Slopes," *Journal of Coastal Research*, SI(7), 167-184.

6.2 Chapters in Books

1. Mori, N., Goda, K., Cox, D.T. "Recent Progress in Probabilistic Tsunami Hazard Assessment (PTHA) for Mega Thrust Subduction Earthquakes," In: *The 2011 Japan Earthquake and Tsunami: Reconstruction and Restoration. Insights and Assessment after 5 years,* Adv. Natural, Tech. Hazards, Vol. 47*,* Springer, ISBN 978-3-319-58690-8 (in press).

2. Mori, N., Kakuno, S. Cox, D.T. (2009) "Aeration and Bubbles in the Surf Zone," *Handbook of Coastal and Ocean Engineering*, Y.C. Kim (ed.), 115 – 130.

3. Briggs, M., Yeh, H., Cox, D.T. (2009) "Physical Modeling of Tsunami Waves," *Handbook of Coastal and Ocean Engineering*, Y.C. Kim (ed.), 1073 – 1106.

6.3 Conference Proceedings

1. Barbosa, A.R., Alam, M.S., Scott, M.H., Cox, D.T., van de Lindt, J.W (2018) "Development of Physics-based Tsunami Fragility Functions Considering Structural Member Failures," *International Conference on Coastal Engineering*, ASCE. (abstract submitted).

2. Cox, D., Park, H., Alam, M.S., Barbosa, A.R. (2018) "Probabilistic Tsunami Hazard Assessment and Damage Estimation of the Built Environment: Application to the Cascadia Subduction Zone and Seaside, Oregon," *International Conference on Coastal Engineering*, ASCE. (abstract submitted).

3. Park, H., Do, T., Tomiczek, T., Cox, D., van de Lindt, J.W. (2018) "Laboratory Validation and Inter-Model Comparisons of Non-breaking, Impulsive Breaking, and Broken Wave Interaction with Elevated Coastal Structures using IHFOAM and FLUENT," *International Conference on Coastal Engineering*, ASCE. (abstract submitted).

4. Mieras, R.S. Puleo, J.A., Anderson, D., Cox, D.T., Hsu, T.-J., Calantoni, J. (2018) "Observations of Horizontal and Vertical Sediment Fluxes on a Sandbar in the Suspended and Sheet Flow Layers," *International Conference on Coastal Engineering*, ASCE. (abstract submitted).

5. Lomonaco, P., P. Arduino, A. Barbosa, D. Cox, T. Do, M. Eberhard, M. Motley, K. Shekhar, T. Tomiczek[4], H. Park, J. W. van de Lindt, A. Winter "Experimental Modeling of Wave Forces and Hydrodynamics on Elevated Coastal Structures Subject to Waves, Surge or Tsunamis: The Effect of Breaking, Shielding and Debris, *International Conference on Coastal Engineering*, ASCE. (abstract submitted).
6. Suzuki, T., Inami, Y., Cox, D., Yanagishima, S., Sakimaha, S. (2018) "Observations of Sediment Particle Movements Under Accretive Wave Conditions," *International Conference on Coastal Engineering*, ASCE. (abstract submitted).
7. Tomiczek, T., Wyman, A., Park, H., Cox, D.T. (2018) "Application and modification of Goda Formulae for Non-impulsive Wave Forces on Elevated Coastal Structures," *International Conference on Coastal Engineering*, ASCE. (abstract submitted).
8. Mori, N., Goda, K., and Cox, D.T. (2017) "Overview of Probabilistic Tsunami Hazard Assessment and Its Application," *International Tsunami Symposium*, Bali.
9. Do, T. Johnson, T., van de Lindt, J. and Cox, D.T. (2017) "Development of Physics-based Building Fragility Surfaces for Near-coast Community Modeling," International Conference on Coastal and Ocean Engineering, Osaka, Japan.
10. Higgins, C., Cox, D.T., and Lomonaco, P. (2017) "NHERI Experimental Facility for Tsunami and Coastal Windstorms," *World Conference on Earthquake Engineering*, Santiago, Chile, Jan 9 – 13.
11. Mieras, R., Puleo, J., Anderson, D., Cox, D.T., Hsu,T.-J. (2017) "Large-scale experimental observations of wave-induced sediment transport over a surf zone sandbar," *Coastal Dynamics 2017* (accepted).
12. Xiong, Y., Liang, Q., Amouzgar, R., Cox, D.T., Mori, N, Wang, G., Zheng, J. (2016) "High-Performance Simulation of Tsunami Inundation and Impact on Building Structures," ISOPE, 732 – 738.
13. Zhou, Z., Hsu, T.-J., Cox, D.T., Liu, X., (2015) "Large Eddy simulation of wave-breaking induced turbulent coherent structure and suspended sediment transport on a barred beach," Conference on Model Integration across Disparate Scales in Complex Turbulent Flow Simulation, Penn State, June 15-17.
14. Cox, D.T., Park, H., Mostafizi, A., Wang, H., and Cramer, L. "Tsunami Inundation Modeling for Life Safety and Civil Infrastructure Damage: Application to the Cascadia Subduction Zone and Newport, Oregon" *Coastal Structures and Solutions to Coastal Disasters Joint Conference*, ASCE/COPRI, Boston, Sept. 9 – 11, 2015.
15. Wang, H., Mostafizi, A., Cox, D.T. (2014) "A Multimodal Near-field Tsunami Evacuation: An Agent-based model simulation of Seaside, Oregon," *International Conference on Evacuation Modeling and Management*.
16. Park, H., Cox, D.T. Wiebe, D., (2014) "Tsunami Inundation Modeling: Sensitivity of Velocity and Momentum Flux to Bottom Friction with Application to Building Damage at Seaside, Oregon," *International Conference on Coastal Engineering*, ASCE.
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18. Yoon, H.D., Cox, D.T., Albert, D.A., Mori, N., Smith, H., P. Blackmar (2014) "Vertical structure of wave induced currents, orbital velocity, and turbulence observed in natural vegetation," *International Conference on Coastal Engineering*, ASCE.

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21. Ko, H., Cox, D.T., Riggs, R., Naito, C., Kobayashi, M., "Hydraulic Experiments on Impact Forces from Tsunami-Driven Debris," Conference Proceedings, Network for Earthquake Engineering Simulation (NEES) *Quake Summit 2013*, Reno, NV.
22. Shin, S., Cox, D.T., Shin, B., Kim, K. (2013) "Numerical modeling of wave loads on bridge superstructures in comparisons with large-scale laboratory experiments" *12th International Coastal Symposium*, April, UK.
23. Park, S., van de Lindt, R.J.W, Gupta, R., and Cox, D.T. (2013) "Fragility risk assessment and methodology for cascading earthquake-tsunami hazard," *Conference of the Engineering Mechanics Institute*, ASCE.
24. Yoon, H., Shin, S., Cox, D.T., Pyun, C. (2013) "Numerical Simulation of Hydrodynamics in the Surf Zone over a Moveable Bed in CROSSTEX Experiment" *23th International Ocean and Polar Engineering Conference*, July, 2013, Alaska, USA.
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26. Shin, S., Lee, K.-H., Park, H., Kim, K., and Cox, D.T. (2012) "Influence of Infrastructure on Tsunami Inundation in a Coastal City: Laboratory Experiments and Numerical Simulation," *International Conference on Coastal Engineering*, ASCE.
27. Yoon, H.D. and Cox, D.T. (2012) "Intermittent Characteristics of Turbulence and Sediment Suspension in the Surf Zone: Observations and Predictions," *International Conference on Coastal Engineering*, ASCE.
28. Schumacher, T.A. and Cox, D.T. (2011) "Dynamic Response of a Large Scale Prestressed Concrete Girder Bridge Subjected to Hurricane Wave Forces," American Concrete Institute, Tampa Bay, FL.
29. Higgins, C.C., and Cox, D.T. (2011) "Behavior of Superstructure to Substructure Connections under Simulated Hurricane Wave Induced Loads," American Concrete Institute, Tampa Bay, FL.
30. Bridges, K., Cox, D.T., Thomas, S., Shin, S., Rueben, M. (2011) "Large-Scale Wave Basin Experiments on the Influence of Large Obstacles on Tsunami Inundation Forces," *Coastal Structures '11*, ASCE, Yokohama, Japan (CD ROM).
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34. Schumacher, T., Higgins, C., Bradner, C., Cox, D.T. (2010) "Dynamic Response of a Large-Scale Prestressed Concrete Girder Bridge Subjected to Hurricane Wave Forces" American Concrete Institute conference (CD ROM).
35. Higgins, C., Lehrman, J.B., Cox, D.T. (2010) "Behavior of Superstructure-to-Substructure Connections Under Simulated Hurricane Wave Induced Loads" American Concrete Institute conference (CD ROM).
36. Wilson, J., Gupta, R., van de Lindt, J., Cox, D.T. (2010) "Surge Wave Loading on Wood Structures," Proceedings of the 53rd International Convention of the Society of Wood Science and Technology, October 11-15, 2010, Geneva, Switzerland.
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39. Schumacher, T., Higgins, C., Bradner, C., Cox, D.T. (2009) "Large-scale laboratory wave flume experiments on highway bridge superstructures exposed to wave forces," *Structures Congress,* ASCE, Austin, TX.
40. Schumacher, T., Higgins, C., Bradner, C., Cox, D.T., Yim, S. (2008) "Large-Scale Wave Flume Experiments on Highway Bridge Superstructures Exposed to Hurricane Wave Forces," 6th National Seismic Conference on Bridges and Highways, Charleston, South Carolina.
41. Schumacher, T., Higgins, C., Bradner, C., Cox, D.T. (2008) "New innovative large-scale laboratory setup for experiments on highway bridge superstructures exposed to wave forces," *Concrete Bridge Conference*, St. Louis, Missouri, National Concrete Bridge Council, 1421 – 1432.
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43. Bradner, C., Schumacher, T., Cox, D.T., and Higgins, C. (2008) "Large-scale laboratory measurements of wave forces on highway bridge superstructures," *31st International Conference on Coastal Engrg,* ASCE, 3554 – 3566.
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45. Shin, S., Cox, D.T., Kim, I.C., Yim, S. (2006), "Wave Transformation, Impact, and Overtopping on a Rubble Mound Breakwater: Large-scale Measurements and Numerical Modeling," *30th International Conference on Coastal Engrg*, ASCE, 4580 – 4591.

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52. Patrick, A.R., Colllins, W.G., Tissot, P.E., Drikitis, A., Stearns, J., Michaud, P., Cox, D.T. (2002) "Use of the NCEP mesoeta data in a water level predicting neural network," *Proc. of 19th AMS Conf. on Weather Analysis and Forecasting/15th AMS Conf. on Numerical Weather Prediction*, American Meteorological Society.

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6.4 Magazine Articles

1. Naito, C., Cox, D.T., and Yu, Q.-S. (2011) "Impact of tsunami generated debris during the 2011 Tohoku Japan Tsunami," *Structural Engineer*, November issue.

7. Conference Presentations and Invited Lectures and Presentations

7.1 Conference Presentations

1. "Experimental and Numerical Study to Improve Damage and Loss Estimation due to Overland Wave and Surge Hazards on Near-Coast Structures" Keynote presentation for *Lessons Learned and Best Practices: Resilience of Coastal Structure Conference*, Puerto Rico, 2017.
2. CoastaLab 2016
3. "Tsunami Inundation Modeling for Life Safety and Infrastructure Damage: Application to the Cascadia Subducation Zone and Seaside, Oregon," *Joint Conference of Solutions to Coastal Disasters and Coastal Structures '15,* Boston, 2015.
4. "Tsunami Inundation Modeling: Sensitivity of Velocity and Momentum Flux to Bottom Friction with Application to Building Damage at Seaside, Oregon," *34th International Conference on Coastal Engrg*, Seoul, Korea, 2014.
5. "Observations and Predictions of Intermittent Sediment Suspension in the Surf Zone," *3rd International Symposium on Rip Current*, Busan, Korea, 2014.
6. "Intermittent Turbulence and Sediment Suspension in the Surf Zone and Implications for Onshore Sediment Transport," *Ocean Sciences*, AGU, Salt Lake City, 2012.
7. "Large-Scale Wave Bain Experiments on the Influence of Large Obstacles on Tsunami Inundation Forces," *Coastal Structures '11*, ASCE, Yokohama, Japan, 2011.
8. "Tsunami inundation with macro-roughness in the constructed environment," *31st International Conference on Coastal Engrg*, Hamburg, Germany, 2008.
9. "The role of vertical evacuation in saving lives in tsunami disasters," *Network for Earthquake Engineering Annual Meeting*, Portland, OR, 2008.
10. "NEES Tsunami Facility Spotlight: Wavemaker facility enhancement for large-scale testing of tsunami and hurricane wave forces," *Network for Earthquake Engineering Annual Meeting*, Portland, OR, 2008.
11. "Pore-pressure in rubble mound structures: RANS modeling and comparisons to large-scale experiments," *Coastal Structures '07,* Venice Italy, 2007.
12. "The Role of Wave Breaking Turbulence in Sediment Suspension Observed During CROSSTEX," *27th International Conference on Coastal Engrg*, San Diego, California, 2006.
13. "NEES Multidirectional Wave Basin for Tsunami Research," *Coastal Structures '03*, Portland, Oregon, 2003.
14. "Observations and Predictions of Tides and Storm Surges Along the Gulf of Mexico," *Waves '01*, San Francisco, California, 2001.
15. "Local and Remote Forcing of Subtidal Water Level and Setup Fluctuations in Coastal and Estuarine Environments," *Coastal Dynamics '01*, Lund, Sweden, 2001.
16. "Bottom Stress in the Inner Surf and Swash Zone," *27th International Conference on Coastal Engrg*, Sydney, Australia, 2000.
17. "Coherent Motions in the Bottom Boundary Layer under Shoaling and Breaking Waves," *26th International Conference on Coastal Engrg*., Copenhagen, Denmark, 1998.

18. "Application of an Undertow Model to Irregular waves on Barred Beaches and Reflective Coastal Structures," *26th International Conference on Coastal Engrg*., Copenhagen, Denmark, 1998.
19. "Undertow Profiles in the Bottom Boundary Layer under Breaking Waves," *25th International Conference on Coastal Engrg*, Orlando, Florida, 1996.
20. "Bottom Shear Stress and Undertow Profile Measurements Under Breaking Waves," *American Geophysical Union, Fall Meeting*, San Francisco, 1995.
21. "Vertical Variations of Fluid Velocities and Shear Stress in Surf Zones," *24th International Conference on Coastal Engrg*., Kobe, Japan, 1994.
22. "Numerical Model Verification using SUPERTANK Data in Surf and Swash Zones," *Coastal Dynamics '94*, Barcelona, Spain, 1994.
23. "Irregular Wave Transformation Processes in Surf and Swash Zones," *23rd International Conference on Coastal Engrg*., Venice, Italy, 1992.
24. "Effects of Fluid Accelerations on Sediment Transport in Surf Zones," *Coastal Sediments '91*, Seattle, Washington, 1991.

7.2 Invited Seminars and Presentations

1. "Should I Stay or Should I go? Tsunami Evacuation and Decision-Making for the M9 Cascadia Subduction Zone Event." Keynote presentation for the *2015 Science on a Sphere Users Collaborative Network Workshop*, Portland, OR, 2015.
2. "Modeling of Tsunami Inundation in Urban Waterfront Areas," *Kyoto University*, Japan, 2011.
3. "Modeling of Tsunami Inundation in Urban Waterfront Areas," *Naha University*, Okinawa, Japan, 2011.
4. "Ecological Modeling of Emergent Vegetation in High Wave Energy Coastal Environments," *Naha University*, Okinawa, Japan, 2010
5. "Modeling of Tsunami Inundation in Urban Waterfront Areas," *Kagoshima University*, Japan, 2011.
6. "Ecological Modeling of Emergent Vegetation in High Wave Energy Coastal Environments," *Kagoshima University,* Japan, 2010
7. "Modeling of Tsunami Inundation in Urban Waterfront Areas," *Central Research Institute of the Electric Power Industry*, Tokyo, Japan, 2010.
8. "Modeling of Tsunami Inundation in Urban Waterfront Areas," *Port and Airport Research Institute*, Japan, 2010.
9. "Modeling of Tsunami Inundation in Urban Waterfront Areas," *Yokohama National University*, Japan, 2010.
10. "Ecological Modeling of Emergent Vegetation in High Wave Energy Coastal Environments," *Yokohama National University*, Japan, 2010
11. "Ecological Modeling of Emergent Vegetation in High Wave Energy Coastal Environments," *Kwandong University*, Korea, 2010
12. "Modeling of Tsunami Inundation in Urban Waterfront Areas," *Korean Coastal Engineering Conference*, Keynote Lecture, 2010.

13. “Modeling of Tsunami Inundation in Urban Waterfront Areas,” *Nagoya University*, 2010.
14. “Large-Scale Laboratory Measurements of Hurricane Wave Forces on Highway Bridge Superstructures,” *Louisiana State University*, 2008.
15. “The O.H. Hinsdale Wave Research Laboratory and NEES Tsunami Facility at Oregon State University,” *Texas A&M University*, 2007.
16. “The O.H. Hinsdale Wave Research Laboratory and NEES Tsunami Facility at Oregon State University,” *Hanyang University*, Seoul, Korea, 2006.
17. “The O.H. Hinsdale Wave Research Laboratory and NEES Tsunami Facility at Oregon State University,” *Chonnam National University*, Yeosu, Korea, 2006.
18. “Tsunamis! Making Waves at Oregon State’s O.H. Hinsdale Wave Research Laboratory,” *The Science & Math Investigative Learning Experiences* (SMILE) program, 2006.
19. “Wave, Currents, and Regional Sediment Management at the Mouth of the Columbia River,” *Oregon State University Council of Regents*, Astoria, Oregon, 2005.
20. “The Next Big Wave: Coastal and Ocean Engineering at Oregon State University,” *ASCE Student Chapter Annual Dinner*, 2005.
21. “The Future of Coastal Engineering and Tsunami Research at Oregon State University,” *Port and Airport Research Institute*, Japan, 2004.
22. “Coastal and Ocean Engineering Research and Education in Laboratory Wave Basins” *Oregon State University*, 2002.
23. “Relative Importance of Local and Remote Forcing on Subtidal Variability in Galveston Bay, Texas,” *Marine Forecasters of Southern Region Workshop*, National Weather Service, Corpus Christi, TX, 2001.
24. “Intermittency in Surf Zone Turbulence,” International Workshop on Wave Turbulence, *Cornell University*, Ithaca, NY, 1999.
25. “Intermittency in Surf Zone Turbulence,” and “Bottom Shear Stress in the Surf and Swash Zone” *Disaster Prevention Research Institute*, Kyoto University, Uji, Japan, 1999.
26. “Coastal Engineering at Texas A&M University,” and “Intermittency in Surf Zone Turbulence,” *Central Research Institute of the Electric Power Industry*, Tokyo, Japan, 1999.
27. “Intermittency in Surf Zone Turbulence,” and “Bottom Shear Stress in the Surf and Swash Zone,” *Tokyo Institute of Technology*, Tokyo, Japan, 1999.
28. “Wave Breaking Turbulence and bottom boundary layer processes,” *Woods Hole Oceanographic Institution*, Woods Hole, MA, 1999.
29. “Wave Breaking Turbulence and Sediment Suspension,” *Naval Research Laboratory*, Stennis Space Center, MS, 1999.
30. “Bottom Shear Stress under Breaking Waves,” *Woods Hole Oceanographic Institution*, Woods Hole, MA, 1995.
31. “Numerical and Experimental Modeling of Surf Zone Hydrodynamics,” *U.S. Army Corps of Engineers*, Field Research Facility, Duck, NC, 1995.
32. “Numerical and Experimental Modeling of Surf Zone Hydrodynamics,” *Yokohama National University*, Yokohama, Japan, 1994.

33. "Numerical and Experimental Modeling of Surf Zone Hydrodynamics," *Texas A&M University*, College Station, Texas, 1994.
34. "RBREAK: A Numerical Model for Random Waves Incident on Coastal Structures and Beaches," *U.S. Army Corps of Engineers, Waterways Experiment Station*, Coastal Engineering Research Center, Vicksburg, MS, 1992.
35. "Irregular Wave Reflection and Runup on Rough, Permeable Slopes," *Coastal Engineering Laboratory* and *Disaster Prevention Research Institute*, Kyoto University, Uji, Japan, 1989.

8. Funding: Competitive Grants and Testing

8.1 Competitive Grants:

1. "Collaborative Research: Wave, Surge, and Tsunami Overland Hazard, Loading and Structural Response for Developed Shorelines" NSF; 421,564, 2017-2020, (PI, w/ A. Barbosa.
2. "A Multidisciplinary, Integrative Approach to Valuing Ecosystem Services from Natural Infrastructure," NOAA/NOS, $1,350,000; 2015-2016, S. Dundas (PI), D. Cox, S. Hacker, D. King, D. Lewis, C. Parrish, P. Ruggiero.
3. "Experimental and Numerical Study to Improve Damage and Loss Estimation Due to Overland Wave and Surge Hazards on Near-Coast Structures," Department of Homeland Security, $200,000; 2016-2018, D. Cox (PI, OSU Lead), J. van de Lindt (CSU)
4. "NHERI: Experimental Facility 2015-2019," National Science Foundation, (PI, w/ C. Higgins, OSU; P. Lomonaco, OSU
5. "NIST Center for Risk-Based Community Resilience Planning," National Institute of Standards and Technology (subcontract to Colorado State University), $1,147,532; 2015-2019, D. Cox (PI, OSU Lead), A. Barbosa, M. Scott.
6. "Building Resilient Coastal Communities: A Social Assessment of Mobile Technology for Tsunami Evacuation Planning," Oregon Sea Grant, $123,926, L. Cramer (PI), D. Cox, H. Wang.
7. "Collaborative Research: Large-scale laboratory investigation and numerical modeling of sheet flow sediment transport dynamics across a surf zone sand bar," National Science Foundation, $421,654, 2014-2017, D. Cox (PI)
8. "Collaborative Research: Fundamental Mechanics and Conditional Probabilities for Prediction of Hurricane Surge and Wave Loads on Elevated Coastal Structures," National Science Foundation, $210,000, 2013-2016, D. Cox (PI).
9. "An Integrated Engineering-Economic Vulnerability Assessment Tool to Increase Tsunami Preparedness in Rural Coastal Counties," Oregon Sea Grant, $190,000, 2012-2014, Y. Chen (PI), D. Cox, P. Corcoran, B. Webber.
10. "NEESR-CR: Impact Forces from Tsunami-Driven Debris," National Science Foundation, $963,111, 2010-2013, R. Riggs (UH, PI), D. Cox, C. Naito (Lehigh), M. Kobayashi (UH).
11. "Ecological modeling of emergent vegetation for sustaining wetlands in high wave energy coastal environments," National Science Foundation, $300,000, 2009-2012, D. Cox (PI) and D. Albert.

12. “NEESR II: Mitigating the Risk of Coastal Infrastructure through understanding Tsunami-Structure Interaction and Modeling,” National Science Foundation, $375,000, 2008-2011, D. Cox (PI), R. Gupta, J. van de Lindt (CSU), F. Aguiniga (TAMU-K).
13. “Hurricane Wave Forces on Highway Bridge Superstructure: Psuedo-dynamic Testing for Bridge Subassembly,” Oregon Transportation Research and Education Consortium, $100,000, 2009, D. Cox.
14. “Coupled Hydraulic-Structural Testing to Improve Highway Bridge Performance Under Extreme Hurricane Wave Loads,” National Science Foundation, $100,000, 2008-2010, D. Cox (PI), C. Higgins, S. Yim.
15. “MRI: Acquisition of a Large-Stroke, Piston-Type Wavemaker for Coastal Hazards Research and Education,” National Science Foundation, $1,132,800, 2008-2009, D. Cox (PI), T. Ozkan-Haller, A. von Jouanne, S. Yim.
16. “Hurricane Wave Forces on Highway Bridge Superstructure: Repair and Retrofit of Existing Bridges,” Oregon Transportation Research and Education Consortium, $75,000, 2008, D. Cox.
17. “Hurricane Wave Forces on Highway Bridge Superstructures,” Oregon Transportation Research and Education Consortium, $50,000, D. Cox, 2007.
18. “Physical and numerical modeling of intensity-based tsunami inundation,” Oregon Sea Grant, $170,000, 2007-2009, D. Cox.
19. “Large Scale Laboratory Tests of Coastal Dune Erosion,” Oregon Sea Grant, $170,000, 2006-2008, P. Ruggiero (PI), T. Maddux, D. Cox.
20. “Maintenance and Operation of NEES Tsunami Wave Research Facility,” NEES Consortium, Inc., $4,547,906, 2004-2008, S. Yim (PI), D. Cox, C. Pancake, H. Yeh.
21. “NEES Instrumentation Acquisition for the Tsunami Wave Basin” National Science Foundation, $250,000, 2004-2005. D. Cox (PI), H. Yeh, S. Yim.
22. “Collaborative Research: CROSSTEX - Wave breaking and boundary layer processes and the resulting sediment suspension in the surf zone,” National Science Foundation, $382,228, 2004-2008, D. Cox.
23. “Numerical and Physical Model Study of Cobble Berms,” Oregon Sea Grant, $37,993, 2004-2005, D. Cox.
24. “Scientific Synthesis in Support of the Columbia Near-shore Beneficial Use of Dredged Material Project” $99,020, 2004-2005, G. Achterman (PI), R. Davis-Born, D. Cox.
25. “REU-Site: Interdisciplinary Approaches to Coastal Processes and Hazard Mitigation,” National Science Foundation, $287,722, 2003-2005, D. Cox (PI), M. Haller, C. Pancake.
26. “Incorporating meteorological forecasts to nowcast/forecast water level anomalies in navigable waterways of the northwestern Gulf of Mexico,” Sea Grant, $181,838, 2003-2005, D. Cox (PI), P. Tissot, P. Michaud.
27. “Upgrading Oregon State's Multidirectional Wave Basin for Remote Tsunami Research,” National Science Foundation, $4,775,832, 2001-2004, S. Yim (PI), D. Cox, C. Pancake, H. Yeh.
28. “A Fundamental Upgrade of the Texas Coast Water Level Forecasting System,” Texas Coastal Coordination Council, $153,692, 2001-2003, P. Michaud (PI), P. Tissot, D. Cox.

29. “Proposal to Investigate Shoreline Erosion in Jefferson County, Texas,” Jefferson County, Texas, $164,202, 1998-1999, B. Edge (PI), D. Cox.
30. “NSF Career Award: Experimental and Numerical Modeling of Coastal Boundary Layer Processes Induced by Shoaling and Breaking Surface Gravity Waves,” National Science Foundation, $210,000, 1998-2002, D. Cox.
31. “Field Observations of the Three-Dimensional Flow Structure and Sediment Movement in the Surf Zone,” Japan Society for the Promotion of Science, $7,300, 1999, D. Cox.
32. “Research Experience for Undergraduate Program (Joshua Carter) – Supplement to NSF Career Award,” National Science Foundation, 1999, D. Cox.
33. “Matching Support for Pacific International Testing,” National Science Foundation, $15,000, 1999-2000, D. Cox.
34. “Remediation of Contaminated Sediments in Lavaca Bay, Texas: Physical Modeling of Nearshore Sediment Suspension,” Energy Resource Program Texas A&M University, $16,800, 1999, D. Cox.
35. “Education and Student Research in Offshore Tin Mining,” National Science Foundation, $67,950, 1997-1999, B. Edge (PI), D. Cox, M. Kim, R. Randall.

8.2 Testing Projects

1. “Physical Model Testing of Levee Overtopping for Jackson State University,” Jackson State University, $207,512, 2009.
2. “Physical Model Testing of Columbia Power Buoy,” Columbia Power Technology, $60,176, 2009.
3. “Physical Model Testing for Lightweight Modular Causeway System, Phase 2,” US Army Corps of Engineers, $28,818, 2009.
4. “Physical Model Testing of Sealift Cargo Movement Technology (SCMT),” Oceaneering, $62,495, 2009.
5. “Physical Model Testing for Northstar Renewal Project,” PND Engineers / BP, $549,900, 2008.
6. “Physical Model Study of Hyperion Outfall”, Parsons/E2 Engineers, $40,360, 2007.
7. “Physical Model Testing for Hurricane Impact on Dune Protection,” US Army Corps of Engineers – ERDC, $60,000, 2006.
8. “Physical Model Testing for Dune Scarping and Overwash,” Oregon Sea Grant, $19,000, 2006.
9. “Physical Model Testing for Lightweight Modular Causeway,” US Army Corps of Engineers, $30,000, 2006.
10. “Physical Model Testing for Riprap Stability and Impact Pressure, Santee Cooper Slope Protection Project, Phase II,” Paul C. Rizzo Associates, Inc., $59,280, 2006.
11. “Physical Model Testing for Riprap Stability and Impact Pressure, Santee Cooper Slope Protection Project,” Paul C. Rizzo Associates, Inc., $83,206, 2006.
12. “Physical Model Study of Stability, Runup and Overtopping for Oooguruk Production Island,” Coastal Frontiers Corporation, $57,880, 2005.

13. “Physical model testing for swash dynamics as part of the Cross-shore Sediment Transport Experiment (CROSSTEX) project,” Philip Liu (Cornell U.), Edwin Cowen (Cornell U.), $30,000, 2005.
14. “Physical model testing for Bar Migration as part of the Cross-shore Sediment Transport Experiment (CROSSTEX) project,” Tuba Ozkan-Haller, Merrick Haller, James Kirby (Univ. Delaware), $50,000, 2005.
15. “Physical model testing for Wave Breaking as part of the Cross-shore Sediment Transport Experiment (CROSSTEX) project,” D. Cox, Tom Hsu (U. Fla), Diane Foster (Ohio State), Tim Stanton (NPGS), John Trowbridge (WHOI), Don Slinn (U. Fla), $40,000, 2005
16. “Physical Model Testing for Jetty Extension at Keystone Harbor, WA, Phase II,” Coast and Harbor Engineering, $70,000, 2005.
17. “Physical Model Study of Wave Runup and Overtopping for El Sauzal Graving Dock Breakwater” Coastal Frontiers Corporation, $60,124, 2004
18. “Physical Model Testing for Jetty Extension at Keystone Harbor, WA, Phase I,” Coast and Harbor Engineering, $139,986, 2004.
19. “Landslide generated tsunami, Phase 3,” Fredric Raichlen, California Institute of Technology, $20,000, 2004.
20. “Model testing for Phase 3 (Defender) floating breakwater,” Coast & Harbor Engineering, $15,205, 2003.
21. “Model testing for a floating breakwater at Bremerton, WA. Phase 1 and 2” Coast & Harbor Engineering, $27,850, 2003.
22. “Scale model tests of instrument tripod for the Mouth of the Columbia River,” USACE – Portland District, $6,000, 2003.
23. “Landslide generated tsunami, Phase 2,” Fredric Raichlen, California Institute of Technology, $19,000, 2003.
24. “Testing Agreement Between TEES and Pacific International Engineering,” Pacific International Engineering, Inc., $15,000, 1999.
25. “Shoreline Protection for Dredge Island: Physical Model Testing,” Aluminum Company of America, Point Comfort Operations, (B. Edge, PI), $169,535, 1996.

9. Collaborators, Graduate and Undergraduate Research Students, and Advisor

9.1 Graduate students (* expected date of graduation)

1. Benjamin Hunter, MS, 2016
2. William Short, MS, 2016
3. Hyoungsu Park, Ph.D., 2016
4. Wei Chen Wu, Ph.D., 2015
5. Jason Kiel, M.E., 2015
6. Harrison Ko, M.Sc., 2013
7. Dane Weibe, M.Sc., 2013
8. Philip Blackmar, M.Sc., 2013
9. Hendrick Schoeman, M.Sc., 2012
10. Hyung Doug Yoon, Ph.D., 2011
11. Kerri Bridges, M.Sc., 2011
12. Seth Thomas, M.Sc., 2011

13. Mary Beth Oshnack, M.Oc.E., 2010
14. David Newborn, M.Oc.E., 2009
15. Grady Donovan, M.Sc., 2008
16. Christopher Bradner, M.Oc.E., 2008
17. Charles Bisgard, M.Sc., 2006
18. Shingo Ichikawa, M.Oc.E., 2006
19. Christopher Scott, M.Oc.E., 2005
20. Sungwon Shin, Ph.D., 2005
21. Eileen Crawford, M.Sc., 2005
22. Brady Richmond, M.Oc.E., 2005
23. Joel Darnell, M.Oc.E., 2004
24. Young-Joo Nam, M.S., 2002
25. Gregory Guannel, M.S., 2001
26. Francis Way, M.S., 2000
27. Ashok Sukumaran, M.S., 2000
28. William Hobensack, M.S., 1999
29. Victor Ginting, M.S., 1998
30. Olga Pattipawaej, M.S., 1998
31. Joel Rathbun, M.S., 1998 (Co-advisor)
32. Douglas Kennedy, M.S., 1998
33. Luis Moreno, M.E., 1997 (Co-Adviser)
34. Brad Schwichtenberg, M.E., 1997 (Co-advisor)

9.2 Undergraduate research students

1. Amy Salisbury, CEE SURF Program, 2017
2. Tim Flowerday, CEE SURF Program, 2017
3. Anna Tsai, NHERI REU, 2017
4. Diego Delgado, CEE SURF Program, 2016
5. Kevin Cueto, CCE SURF Program, 2016
6. Nanami Noguchi, Japan exchange student, 2015
7. Narumi Kon-no, Japan exchange student, 2015
8. Yuya Hanai, Japan exchange student, 2014
9. Saki Kawano, Japan exchange student, 2014
10. Masahiro Sagehashi, Japan exchange student, 2013
11. Taihei Akatsuka, Japan exchange student, 2013
12. Koutaro Anahara, Japan exchange student, 2013
13. Jasmine Pahukula, NSF REU, 2013
14. Emily Flock, NSF REU EISI Site, 2012
15. Sarah Vallejo, NSF REU EISI Site, 2012
16. Latifa Salih, NSF REU EISI Site, 2012
17. Amy Kordosky, OSU Honors, 2012-13, NSF REU Supplement, 2012
18. Patrick Basal, NSF REU NEES Site, 2012
19. Manuel Garcia Castano, 2012
20. Matt Rueben, OSU Honors, 2011-13
21. Brittany Snyder, OSU Honors, 2010-11, Sea Grant, 2007
22. Sean Lagunas, NSF REU EISI Site, 2010
23. Hayden Ausland, NSF REU EISI Site, 2010
24. Jose Lonzano, NSF NEES project, 2010
25. Lindsay Croghan, NSF REU Supplement, 2009
26. Francisco Galan, NSF REU NEES Site, 2009

27. Manuel Guerra, NSF NEES project, 2009
28. Sarah E. Criswell, NSF REU HWRL Site, 2005
29. Meghan Irving, NSF REU HWRL Site, 2005
30. James Lynch, NSF REU HWRL Site, 2005
31. Christie Mills, NSF REU HWRL Site, 2004
32. Erin Lucas, NSF REU HWRL Site, 2004
33. James Galloway, NSF REU HWRL Site, 2004
34. William Boylston, NSF REU HWRL Site, 2004
35. Nathan Papini, NSF REU HWRL Site, 2003
36. Neil Clayton, NSF REU HWRL Site, 2003
37. Adrojan Spencer, NSF Summer REU Program, 2001
38. Jose Alberto Ortega, EPO Summer Research, 2000
39. Joel Darnell, NSF REU Program, 2000
40. Josh Carter, NSF REU Program, 1999
41. Christopher Scott, NSF REU Program, 1999
42. Hunter Taylor, NSF REU Program, 1998
43. Josh Carter, NSF REU Program, 1997
44. Douglas Kennedy, NSF REU Program, 1996

9.3 High School Teacher research assistants

1. Michael Patterson, Junipero Serra HS, San Mateo, CA, RET Supplement, 2012
2. Dave Tolle, Sweet Home HS, Sweet Home, OR, RET Supplement, 2009
3. Ann Knight, Sweet Home HS, Sweet Home, OR, RET Supplement, 2009