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**PROFESSIONAL PREPARATION:**

2004	Ph.D.	Coastal Engineering	University of Florida
1998	M.Sc.	Oceanography	Oregon State University
1996	B.S., B.A.	Oceanography, Mathematics	Humboldt State University

**RESEARCH AND PROFESSIONAL POSITIONS HELD:**

2020 - Present	Chair, Department of Civil and Environmental Engineering
2017 - Present	Professor, University of Delaware, Department of Civil and Environmental Engineering
2017 - 2020	Associate Chair, Department of Civil and Environmental Engineering
2017 - 2020	Director, Center for Applied Coastal Research
2016 - Present	Intermittent Faculty Member, Civil Engineer, Naval Research Laboratory
2010 - 2017	Associate Professor, University of Delaware, Department of Civil and Environmental Engineering
2011-2012	US-UK Fulbright Scholar, United Kingdom
2011-2012	Visiting Professor, Plymouth University, United Kingdom
2004 - 2010	Assistant Professor, University of Delaware, Department of Civil and Environmental Engineering
1998-2004	Oceanographer, Naval Research Laboratory

**PEER-REVIEWED PUBLICATIONS: (\* indicates published with student)**

Total Citations: 3421  
 h-index: 31 (h-index: 21 since 2017)  
 i10-index: 66 (i10-index: 50 since 2017)

95. Pontiki, M., **J.A. Puleo**, H. Bond, M. Wengrove, R.A. Feagin, T.-J. Hsu, T. Huff. Submitted, Geomorphic response of a coastal berm to storm surge and the importance of sheet flow dynamics, *Journal of Geophysical Research – Earth Surface*.
94. \*Cristaudo, D., B. Gross and **J.A. Puleo**. In Review. Field observations of munitions in the swash zone: long-term behavior and force balance analysis, *Journal of Marine Science and Engineering*
93. Bond, H., M. Wengrove, **J.A. Puleo**, M. Pontiki, M. Evans, and R. Feagin. In Review. Beach and dune subsurface hydrodynamics and their influence on the formation of dune scarps, *Journal of Geophysical Research – Earth Surface*.
92. Song, Y.K., J. Figlus, P. Chardon-Maldonado, and **J.A. Puleo**. In Revision. Process-based numerical simulation of beach recovery via swash bar and trough system dynamics, *Earth Surfaces Process and Landforms*.
91. Turner, C.L., O. Williams, E. Ruggiero, M. Larner, R. Schaeffer, F. Shi., M. Malej, J. Bruck, and **J.A. Puleo**. Accepted. Ship wake forcing and performance of a living shoreline segment on an estuarine shoreline, *Frontiers in Built Environment – Coastal and Offshore Engineering*.
90. Torres-Freyermuth, A. G. Medellin, G.U. Martin and **J.A. Puleo**. 2022. A virtual laboratory for conducting “hands-on” experiments on coastal processes. *Continental Shelf Research*, 243, <https://doi.org/10.1016/j.csr.2022.104760>.
89. **Puleo, J.A** and H. Malladi. Accepted. Making waves in the classroom: Engaging students in STEM through hands-on coastal engineering and oceanography. *Continental Shelf Research*.
88. Rafati, Y., T.-J Hsu, J. Calantoni, and **J.A. Puleo**. Accepted. Entrainment and transport of well-sorted and mixed sediment under wave motion, *Journal of Geophysical Research – Oceans*.
87. Rutten, J., A. Torres-Freyermuth, and **J.A. Puleo**. 2021. Uncertainty in runup predictions on natural beaches with a phase-resolving model, *Coastal Engineering*, 166, <https://doi.org/10.1016/j.coastaleng.2021.103869>.
86. \*Innocenti, R.A., R. A. Feagin, B. R. Charbonneau, J. Figlus, M. Wengrove, P. Lomonaco, **J. A. Puleo**, T. P. Huff, Y. Rafati, T.-J Hsu, B. Tsai, T. Boutton, M. Pontiki, J. Smith, and M. V. Moragues. 2021. Effects of plant structure and fluid properties on the physical response of coastal dune plants to wind and wave run-up, *Estuarine, Coastal and Shelf Science*, 261, <https://doi.org/10.1016/j.ecss.2021.107556>.

85. Pintado-Patiño, J.C., **J.A. Puleo**, D. Krafft, A. Torres-Freyermuth. 2021. Hydrodynamics and sediment transport under a dam break-driven swash: An experimental study, *Coastal Engineering*, <https://doi.org/10.1016/j.coastaleng.2021.103986>
84. Heiss, J.W., H. A. Michael, and **J.A. Puleo**. 2020. Groundwater-surface water exchange in the intertidal zone detected by hydrologic and coastal oceanographic measurements, *Hydrological Processes*, <https://doi.org/10.1002/hyp.13825>.
83. **Puleo, J.A.**, D. Cristaudo, A. Torres-Freyermuth and G. Masselink. 2020. The role of alongshore flows on inner surf and swash zone hydrodynamics on a dissipative beach, *Continental Shelf Research*, <https://doi.org/10.1016/j.csr.2020.104134>
82. **Puleo, J.A.** and P. Chardon-Maldonado. 2020. Bundlecuss: Cable entanglement lessons learned from a nor'easter field deployment, *Journal of Coastal Research*, 101(sp1), 359-362.
81. **Puleo, J.A.** 2020. A design-based fluids mechanics laboratory, *Global Journal of Engineering Education*, 22(1), 26-31.
80. \*Cristaudo, D. and **J.A. Puleo**. 2020. Observation of migration and burial of munitions in the swash zone, *Ocean Engineering*, <https://doi.org/10.1016/j.oceaneng.2020.107322>.
79. Roberts-Briggs, T., J. Figlus, A. Torres Freyermuth, **J.A. Puleo**, W. Warren and T. Alrushaid. 2020. Variability in onshore sediment transport on a natural beach during a Central American cold surge event, *Journal of Coastal Research*, 36(3), 487-497.
78. Torres-Freyermuth, A., J.C. Pintado-Patino, A. Pedrozo-Acuna, **J.A. Puleo** and T.E. Baldock. 2019. Runup uncertainty on planar beaches, *Ocean Dynamics*, <https://doi.org/10.1007/s10236-019-01305-y>
77. \*Borrell, S. and **J.A. Puleo**, 2019. In situ hydrodynamic and morphodynamics measurements during extreme events, *Shore & Beach*, 87(4), 23-30. <http://doi.org/10.34237/1008743>.
76. Coogan, J.S., B.M. Webb, S. Smallegan, and **J.A. Puleo**. 2019. Geomorphic changes measured on Dauphin Island, AL during Hurricane Nate, *Shore & Beach*, 87(4), 16-22. <http://doi.org/10.34237/1008742>.
75. Howe, D., C.E. Blenkinsopp, I.L. Turner, T.E. Baldock, and **J.A. Puleo**. 2019. Direct measurements of bed shear stress under swash flows on steep laboratory slopes at medium to prototype scales, *Journal of Marine Science and Engineering*, 7(10), 358; <https://doi.org/10.3390/jmse7100358>.
74. \*Kim, Y., R.S. Mieras, Z. Cheng, D. T.–J. Hsu, **J.A. Puleo**, D. Cox. 2019. A numerical study of sheet flow driven by velocity and acceleration skewed near-breaking waves on a sandbar using SedWaveFoam, *Coastal Engineering*, 152, <https://doi.org/10.1016/j.coastaleng.2019.103526>.
73. \*Doelp, M., **J.A. Puleo** and N.G. Plant. 2019. Predicting Surf Zone Injuries along the Delaware Coast Using a Bayesian Network, *Natural Hazards*, <https://doi.org/10.1007/s11069-019-03697-y>

72. \*Mieras, R.S., **J.A. Puleo**, D. Anderson, T-J. Hsu, D. Cox and J. Calantoni. 2019. Relative contributions of bed load and suspended load to sediment transport on a sandbar, *Journal of Geophysical Research*, <https://doi.org/10.1029/2018JC014564>.
71. Fromant, G., R.S. Mieras, T. Revil-Baudard, **J.A. Puleo**, D. Hurther, J. Chauchat. 2018. On Bedload and Suspended Load Measurement Performances in Sheet Flows Using Acoustic and Conductivity Profilers, *Journal of Geophysical Research – Earth Surface*, 123 (10), 2546-2562.
70. \*Bruder, B., D. Cristaudo, and **J.A. Puleo**. 2018. Smart surrogate munitions for nearshore unexploded ordnance mobility/burial studies, *IEEE Journal of Oceanic Engineering*, 99, 1-20 (<https://doi.org/10.1109/JOE.2018.2871227>).
69. Figlus, J., Y-K. Song, P. Chardon-Maldonado, **J.A. Puleo**. 2018. Numerical simulation of post-storm recovery and time-averaged swash velocity on an engineered beach with ridge-runnel system, *International Journal of Offshore and Polar Engineering*, 28(2), 143-153 (<https://doi.org/10.17736/ijope.2018.ak25>).
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67. \*Torres-Freyermuth, A., **J. A. Puleo**, N. DiCosmo, M.E. Allende-Arandia, P. Chardon-Maldonado, J. Lopez, B. Figueroa-Espinoza, A. Ruiz de Alegria Arzaburu, J. Figlus, T. M. Roberts and J. Candela. 2017. Nearshore circulation on a sea breeze dominated beach during intense wind events, *Continental Shelf Research*, 151, 40-52 (<https://doi.org/10.1016/j.csr.2017.10.008>).
66. \***Puleo, J.A.**, D. Krafft, J.C. Pintado-Patiño, and B. Bruder. 2017. Video-derived near bed and sheet flow sediment particle velocities in dam-break-driven swash, *Coastal Engineering*, 126, 27-36 (<https://doi.org/10.1016/j.coastaleng.2017.04.008>).
65. \*Martins, K., C. E. Blenkinsopp, H. E. Power, B. Bruder, **J. A. Puleo**, and E. W. J. Bergsma. 2017. High-resolution monitoring of wave transformation in the surf zone using a LiDAR scanner array, *Coastal Engineering*, 128, 37-43 (<https://doi.org/10.1016/j.coastaleng.2017.07.007>).
64. \*Anderson, D., D.T. Cox, R. Mieras, **J.A. Puleo** and T-J. Hsu. 2017. Observations of wave-induced pore pressure gradients and bed level response on a surf zone sandbar, *Journal of Geophysical Research*, 122, 5169-5193, [10.1002/2016JC012557](http://onlinelibrary.wiley.com/doi/10.1002/2016JC012557) (<http://onlinelibrary.wiley.com/doi/10.1002/2016JC012557/epdf>).
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- within a tidal saltmarsh. *Estuarine, Coastal and Shelf Science*, 192, 29-41 (<https://doi.org/10.1016/j.ecss.2017.04.028>)
61. \*Mieras, R., **J.A. Puleo**, D. Anderson, D.T. Cox and T-J. Hsu. 2017. Large-scale experimental observations of sheet flow on a sandbar under skewed-asymmetric waves, *Journal of Geophysical Research*, 122, 5022-5045, 10.1002/2016JC012438 (<http://onlinelibrary.wiley.com/doi/10.1002/2016JC012438/epdf>).
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  55. Ruju, A., D. Conley, G. Masselink, M. Austin, **J.A. Puleo**, T. Lanckriet and D. Foster. 2015. Boundary layer dynamics in the swash zone under large-scale laboratory conditions, *Coastal Engineering*, doi:10.1016/j.coastaleng.2015.08.001 (<https://doi.org/10.1016/j.coastaleng.2015.08.001>).
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  53. \*Heiss, J.W., **J.A. Puleo**, W.J. Ullman and H.A. Michael. 2015. Coupled surface-subsurface hydrologic measurements reveal recharge and discharge dynamics across the swash zone of a sandy beach, *Water Resources Research*, 10.1002/2015WR017395 (<http://onlinelibrary.wiley.com/doi/10.1002/2015WR017395/epdf>).
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50. \*Pieterse, A., **J.A. Puleo** and T.E. McKenna. 2015. Near-bed shear stress, turbulence production and dissipation in a shallow and narrow tidal channel, *Earth Surface Processes and Landforms*, 40(15), 2059-2070, doi: 10.1002/esp.3782 (<http://onlinelibrary.wiley.com/doi/10.1002/esp.3782/epdf>).
49. \*Brinkkemper, J.A. T. Lanckriet, F. Grasso, **J.A. Puleo** and B.G. Ruessink. 2015. Observations of turbulence within the surf and swash zone of a field-scale sandy laboratory beach, *Coastal Engineering*, doi:10.1016/j.coastaleng.2015.07.006 (<https://doi.org/10.1016/j.coastaleng.2015.07.006>).
48. \***Puleo, J.A.**, T. Lanckriet, D. Conley and D. Foster. 2015. Sediment transport partitioning in the swash zone of a large-scale laboratory beach, *Coastal Engineering*, doi:10.1016/j.coastaleng.2015.11.001 (<https://doi.org/10.1016/j.coastaleng.2015.11.001>).
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46. \***Puleo, J.A.** A. Pieterse and T.E. McKenna. 2015. Quantifying tidal mud flat elevations from fixed-platform long-wave infrared imagery, *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*, 8 (3), 199-1207 (<http://ieeexplore.ieee.org/document/7008498/?reload=true>).
45. \*Inch, K., G. Masselink, J.A. Puleo, P. Russell and D. Conley. 2015. Vertical structure of near-bed cross-shore flow velocities in the swash zone of a dissipative beach, *Continental Shelf Research*, dx.doi.org/10.1016/j.csr.2015.04.006 (<https://doi.org/10.1016/j.csr.2015.04.006>).
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43. \*Keshtpoor, M., **J.A. Puleo** and F. Shi. 2014. Downdrift beach erosion adjacent to Indian River Inlet, Delaware, USA. *Shore & Beach*, 82(1), 31-41 (Best student paper award at ASBPA conference).
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35. \*Lanckriet, T. **J.A. Puleo**, and N. Waite. 2013. A conductivity concentration profiler for sheet flow sediment transport, *IEEE Journal of Oceanic Engineering*, 38, 55-70, (<http://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=6363485>).
34. \*Keshtpoor, M. **J.A. Puleo**, J. Gebert and N.G. Plant. 2013. Beach response to a sand bypassing system, *Coastal Engineering*, 73, 28-42, (<https://doi.org/10.1016/j.coastaleng.2012.09.006>).
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12. **Puleo, J.A.**, T. Butt and N.G. Plant. 2005. Instantaneous energetics sediment transport model calibrations, *Coastal Engineering*, 52, 647-653, (<https://doi.org/10.1016/j.coastaleng.2005.03.002>).
11. Plant, N.G., **J.A. Puleo** and K.T. Holland. 2004. Prediction skill of nearshore profile evolution models, *Journal of Geophysical Research*, 109, C01006, 10.1029/2003JC001995, (<http://onlinelibrary.wiley.com/doi/10.1029/2003JC001995/epdf>).
10. **Puleo, J.A.**, O. Mouraenko and D.M. Hanes. 2004. One-dimensional wave bottom boundary layer model comparison: Specific eddy viscosity and turbulence closure models, *Journal of Waterway, Port, Coastal and Ocean Engineering*, 130, 322-325, (<https://ascelibrary.org/doi/abs/10.1061/%28ASCE%290733-950X%282004%29130%3A6%28322%29>).
9. Butt, T., P. Russell, **J.A. Puleo**, J. Miles and G. Masselink. 2004. The influence of bore turbulence on sediment transport in the swash and inner surf zones, *Continental Shelf Research*, 24, 757-771, (<https://doi.org/10.1016/j.csr.2004.02.002>).
8. **Puleo, J.A.**, T.N. Kooney and R.V. Johnson. 2004. Laboratory air bubble generation of various size distributions, *Review of Scientific Instruments*, 75, 4558-4563, (<https://aip.scitation.org/doi/abs/10.1063/1.1805013>).
7. **Puleo, J.A.**, K.T. Holland, N.G. Plant, D.N. Slinn and D.M. Hanes. 2003. Fluid acceleration effects on suspended sediment transport in the swash zone, *Journal of Geophysical Research*, 108, 3350, 10.1029/2003JC001943, (<http://onlinelibrary.wiley.com/doi/10.1029/2003JC001943/epdf>).

6. **Puleo, J.A.**, G. Farquharson, S. Frasier and K.T. Holland. 2003. Comparison of optical and radar measurements of surf and swash zone velocity fields, *Journal of Geophysical Research*, 108, 3100, doi:10.1029/2002JC001483, (<http://onlinelibrary.wiley.com/doi/10.1029/2002JC001483/epdf>).
5. Plant, N.G., K.T. Holland and **J.A. Puleo**. 2002. Analysis of the scale of errors in nearshore bathymetric data, *Marine Geology*, 191, 71-86, ([https://doi.org/10.1016/S0025-3227\(02\)00497-8](https://doi.org/10.1016/S0025-3227(02)00497-8)).
4. **Puleo, J.A.** and K.T. Holland. 2001. Estimating swash zone friction coefficients on a sandy beach, *Coastal Engineering*, 43(1), 25-40, ([https://doi.org/10.1016/S0378-3839\(01\)00004-7](https://doi.org/10.1016/S0378-3839(01)00004-7)).
3. Holland K.T. and **J.A. Puleo**. 2001. Variable swash motions associated with foreshore profile change, *Journal of Geophysical Research*, 106(C3), 4613-4623, (<http://onlinelibrary.wiley.com/doi/10.1029/1999JC000172/epdf>).
2. Holland, K.T., **J.A. Puleo** and T.N. Kooney. 2001. Quantification of swash flows using video-based particle image velocimetry, *Coastal Engineering*, 44, 65-77, ([https://doi.org/10.1016/S0378-3839\(01\)00022-9](https://doi.org/10.1016/S0378-3839(01)00022-9)).
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**NON-REFEREED PUBLICATIONS:** (\* indicates published with student)

27. \*Borrell, S. and **J.A. Puleo**. 2019. In situ hydrodynamic and morphodynamics measurements during extreme storm events. Shoreline, Florida Shore and Beach Preservation Association.
26. \*Gross, B. and **J.A. Puleo**. 2019. Mobility of unexploded ordnance using spherical surrogates on the beach face. Shoreline, Florida Shore and Beach Preservation Association.
25. \*Cristaudo, D., B. Bruder and **J.A. Puleo**. 2017. Instrumented surrogate munitions for nearshore unexploded ordnance studies – design and measurement capabilities. Proceedings of the MTS/IEEE Oceans Conference, Anchorage, Alaska.
24. \*Figlus, J., Y.-K. Song, P. Chardon-Maldonado, and **J.A. Puleo**. 2017. Ridge-Runnel and Swash Dynamics Field Experiment on a Steep Meso-Tidal Engineered Beach: Numerical Model Simulation of Ridge Accretion. Proceedings of International Society of Ocean and Polar Engineers (ISOPE) Conference, San Francisco, CA.
23. \*Kim, Y., Z. Cheng, T. Hsu, R. Mieras and **J.A. Puleo**. 2017. A numerical investigation of sheet flow under non-breaking and breaking waves, *Proceedings 8<sup>th</sup> International Conference on Coastal Dynamics*, Helsingor, Denmark.
22. \*Mieras, R., **J.A. Puleo**, D. Anderson, D.T. Cox and T. Hsu. 2017. Large-scale experimental observations of wave-induced sediment transport over a surf zone

- sand bar, *Proceedings 8<sup>th</sup> International Conference on Coastal Dynamics*, Helsingor, Denmark.
21. \*Keshtpoor, M., **J.A. Puleo** and F. Shi. 2013. Downdrift beach erosion adjacent to the Indian River Inlet, Delaware, USA., NSBPA Conference, The Richard Stockton College of New Jersey, Galloway, New Jersey. Best Student Paper Award.
  20. Foster, D., E. Carlson, D. Conley and **J.A. Puleo**. 2013. Observations of fluid accelerations within individual swash events, *Proceedings Coastal Dynamics*, Arcachon, France.
  19. \*Lanckriet, T., **J.A. Puleo**, G. Masselink, I.L. Turner, D. Conley, C. Blenkinsopp and P. Russell. 2012. Field measurements of sheet flow sediment transport in the swash zone, *Proceedings of the 33rd International Conference on Coastal Engineering*, Santander, Spain.
  18. \***Puleo, J.A.**, C. Blenkinsopp, D. Conley, G. Masselink, I.L. Turner, P. Russell, D. Buscombe, D. Howe, T. Lanckriet, R. McCall and T. Poate. 2012. Comprehensive study of swash-zone hydrodynamics and sediment transport, *Proceedings of the 33rd International Conference on Coastal Engineering*, Santander, Spain.
  17. \***Puleo, J.A.** and T. Lanckriet. 2011. Acoustic measurement of swash-zone velocity profiles on a natural beach. *Journal of Ocean Technology, Underwater Acoustics*, 6(2), 60-61.
  16. Han, B., P.T. Imhoff, V. Scicchitano, M.A. O’Neal, **J.A. Puleo** and D.A. Fluman. 2010. Airborne measurements for quantifying methane emissions from landfills. *Proceedings of the 6<sup>th</sup> International Landfill Research Symposium*, Hokkaido, Japan.
  15. \*Hicks, B., N. Kobayashi, **J.A. Puleo** and A. Farhadzadeh. 2010. Cross-shore transport on gravel beaches. *Proceedings of the 32nd International Conference on Coastal Engineering*, Shanghai, China.
  14. Zhao, Q., Kirby, J.T. and **J.A. Puleo**. 2010. Modeling onshore sediment transport using energetic models. *Proceedings of the 32nd International Conference on Coastal Engineering*, Shanghai, China.
  13. \***Puleo, J.A.** and J.T. Hayden. 2009. A near real-time scour monitoring system at Indian River Inlet, Delaware, USA, MTS/IEEE Oceans ’09 Conference, Biloxi, MS.
  12. \*Hayden, J.T., **J.A. Puleo** and J.H. MacMahan. 2008. Scour monitoring at Indian River Inlet, Delaware, USA. *Proceedings of the 31<sup>st</sup> International Conference on Coastal Engineering*, Hamburg, Germany.
  11. \*Farhadzadeh, A. **J.A. Puleo** and N. Kobayashi. 2006. Fluid acceleration in the swash zone. *Proceedings of the 30<sup>th</sup> International Conference on Coastal Engineering*, San Diego, CA, USA.
  10. \*Schmied, L., N. Kobayashi, **J.A. Puleo** and Q. Zhao. 2006. Cross-shore suspended sand transport on beaches. *Proceedings of the 30<sup>th</sup> International Conference on Coastal Engineering*, San Diego, CA, USA.

9. \*He. L. and **J.A. Puleo**. 2006. Video-based particle image velocimetry of laboratory rip current. *Proceedings of the 30<sup>th</sup> International Conference on Coastal Engineering*, San Diego, CA, USA.
8. **Puleo, J.A.** 2004. Hydrodynamics and sediment transport in the inner surf and swash zones, Ph.D. Dissertation, University of Florida.
7. **Puleo, J.A.** and D.N. Slinn. 2004. Numerical investigation of swash zone shear stresses. *Proceedings of the 29<sup>th</sup> International Conference on Coastal Engineering*, ASCE, Lisbon, Portugal.
6. **Puleo, J.A.** and K.T. Holland. 2003. Swash zone flows and sediment suspension in relation to acceleration, Clearwater Beach, Florida, Coastal Sediments '03.
5. Holland, K.T., **J.A. Puleo**, N.G. Plant, and J.M. Kaihatu. 2002. Littoral environmental nowcasting system (LENS), Oceans 2002 MTS/IEEE, Biloxi, Mississippi.
4. \***Puleo, J.A.** K.T. Holland, and D.N. Slinn, E. Smith and B.M. Webb. 2002. Numerical modeling of swash zone hydrodynamics, *Proceedings of the 28<sup>th</sup> International Conference on Coastal Engineering*, ASCE, Cardiff, Wales.
3. **Puleo, J.A.**, K.T. Holland, T.N. Kooney and A.H. Sallenger, Jr. Field observations of swash zone flow patterns and three-dimensional morphodynamics. 2000. *Proceedings of the 27<sup>th</sup> International Conference on Coastal Engineering*, ASCE, Sydney, Australia.
2. Holland, K.T., **J.A. Puleo**, T.N. Kooney, R.A. Holman and J.S. Stanley. 2000. Video-based sensing of surf zone environmental processes, Oceanic Imaging Conference.
1. **Puleo, J.A.** 1998. Swash zone sediment suspension and transport, M.S. Thesis, Oregon State University.

**INVITED LECTURES:** (\* indicates with student)

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33. \*Pontiki, M., **J.A. Puleo**, H. Bond, S.-B. Lee, M. Wengrove, R.A. Feagin, and R. Innocenti. Simulating Mantoloking Dune Erosion Under Hydrodynamics Driven by Hurricane Sandy. 2021 Fall Meeting, American Geophysical Union. New Orleans, LA, USA.
  32. **Puleo, J.A.** 2021. Academic Perspective on Sediment Transport Processes, Coastal R&D Seminar, United States Army Corps of Engineers, Duck, NC.
  31. **Puleo, J.A.** 2019. Near Bed Sediment Transport in the Surf and Swash Zones. Two-Phase Modeling for Sediment Dynamics Conference, Newark, DE.
  30. **Puleo, J.A.** 2019. Academic Perspective: Sediment Transport Processes Capabilities, Gaps and Way Forward, Coastal Engineering Research Board, United States Army Corps of Engineers, Detroit, MI
  29. **Puleo, J.A.** 2018. Nearbed sediment transport in the surf and swash zones. 8<sup>th</sup> International Symposium on Environmental Hydraulics. University of Notre Dame, IN.

28. **Puleo, J.A.** and S. Borrell. 2018. Rapid response deployments to measure intra-storm processes. Storm Processes and Impacts Workshop, St. Petersburg, FL
27. **Puleo, J.A.** 2017. Sheet flow in the surf and swash zones. LEGI, University of Grenoble, Grenoble, France.
26. **Puleo, J.A.** 2016. Keynote: Surf zone injuries: Environmental and human factors. National Board of Directors Meeting, US Lifesaving Association, Denver, Colorado.
25. **Puleo, J.A.** 2016. Keynote: Investigating, understanding, and educating about surf-zone injuries. Mid-Atlantic Marine Education Association meeting, Dewey Beach, DE.
24. **Puleo, J.A.,** P. Cowan, W. Carey, M. Arford-Granholm and K. McKenna. 2016. Surf Zone Injuries in Delaware, Delaware Sea Grant Advisory Council Meeting, Dover, DE.
23. **Puleo, J.A.** 2016. Measurements of sheet flow in the surf and swash zones. United States Geological Survey, St. Petersburg, FL.
22. **Puleo, J.A.** 2016. Sheet flow in the swash and surf zones. University of Maryland.
21. **Puleo, J.A.,** P. Cowan, W. Carey, M. Arford-Granholm and K. McKenna. 2015. Delaware surf zone injuries and associated environmental conditions. Mid-Atlantic Rip Current and Surf Zone Safety Workshop, Lewes, DE.
20. **Puleo, J.A.** 2015. Hydrodynamic and sediment transport measurements in the swash zone, Oregon State University.
19. **Puleo, J.A.** 2014. Measuring hydrodynamics and sediment transport in the swash zone, EP41D-01, 2014 Fall Meeting, AGU, San Francisco, CA.
18. **Puleo, J.A.** 2014. Measurements of near-bed hydrodynamics and sediment transport processes in the swash zone, Department of Geological Sciences, University of Delaware.
17. **Puleo, J.A.** 2013. Matlab for coastal processes and beach monitoring: 6-hour Matlab short course, Richard Stockton, College, NJ.
16. **Puleo, J.A.** 2013. Velocity, near-bed sediment concentration and morphological change in the swash zone, Instituto de Ingenieria y Procesos Costeros, Universidad Nacional Autonoma de Mexico, Sisal, Yucatan, Mexico.
15. **Puleo, J.A.** 2012. Measuring sheet flow concentrations and near bed velocity profiles on the beach face, CCOSE seminar, Plymouth University, United Kingdom.
14. **Puleo, J.A.** 2012. Swash and inner surf zone velocity profiles and bed stress on a natural beach, University of Aberdeen, United Kingdom.
13. **Puleo, J.A.** 2012. Estimating surface velocities in rivers from thermal imagery, University of Aberdeen, United Kingdom.
12. **Puleo, J.A.** 2011. Riverine Surface velocity estimation, Plymouth University, United Kingdom
11. **Puleo, J.A.** and T.E. McKenna. 2011. Quantifying riverine surface velocities using thermal imagery, Rutgers University.

10. \***Puleo, J.A.** and C.A. Lindemer. 2008. Morphodynamics at Cape Henlopen, DE. United States Geological Survey, St. Petersburg, FL
9. **Puleo, J.A.** 2007. Beach response to sea level rise. Workshop on Sea Level Rise Impacts in Delaware. Dover, DE. Sponsored by the Delaware Department of Natural Resources and Environmental Control and NOAA.
8. **Puleo, J.A.** 2006. Quantifying nearshore processes with video. Conference on saving Korea's sandy coasts, Kwandong University, South Korea.
7. \***Puleo, J.A.**, J. MacMahan, J.T. Hayden and J. McConnell. 2006. Monitoring scour hole and tidal currents in Indian River Inlet, Delaware. Delaware Department of Transportation (DelDOT).
6. McKenna, T.E. and **J.A. Puleo**. 2006. Influence of the subsurface thermal environment and ground-water discharge on horseshoe crab spawning and early development: Ground-based remote sensing and field observations. Division of Fish and Wildlife, Delaware Department of Natural Resources and Environmental Control.
5. **Puleo, J.A.** 2005. Center for Applied Coastal Research efforts on rip current studies, NOAA Coastal Communities Rip Current Workshop, Lewes, DE.
4. **Puleo, J.A.** 2002. Extracting hydrodynamic and morphodynamic information from video imagery, Beach and Inlet Observation and Prediction System (BIOPS) workshop at the University of Florida.
3. **Puleo, J.A.** and K.T. Holland. 2000. The use of fixed and aerial video platforms for littoral environmental reconnaissance, MCCDC meeting in Washington DC
2. **Puleo, J.A.** 2000. Overview of the foreshore sediment transport program at the Naval Research Laboratory, Florida Atlantic University.
1. **Puleo, J.A.** 2000. Use of video imagery to monitor littoral processes, Louisiana State University.

**PRESENTATIONS:** (\* indicates with student)

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210. Zhang, J., A. Mathieu, T.-J. Hsu, N. Stark, **J.A. Puleo**, M. Wengrove XBeach Modeling of Cross-shore Hydrodynamics and Morphodynamics in a Shallow Surf Zone 2022 Fall Meeting, American Geophysical Union, Chicago, Illinois, USA.
209. Tsai, B., A. Mathieu, T.-J. Hsu, **J.A. Puleo**, M. Wengrove, J. Chauchat. 2022. Large-Eddy Simulations for Two Nearshore Applications. 2022 Fall Meeting, American Geophysical Union, Chicago, Illinois, USA.
208. Gangadharan, M K., C. Olney, and **J.A. Puleo**. 2022. Simulating a controlled swash-swash interaction (double dam break) using DualSPHysics, DualSPHysics Workshop, Universitat Politècnica de Catalunya - BarcelonaTech, in Barcelona, Spain.

207. \*Pontiki, M., **J.A. Puleo**, H. Bond, M. Wengrove, R.A. Feagin, and S.-B. Lee. Linkages between dune morpho-sedimentary processes and erosive hydrodynamics. 2021 Fall Meeting, American Geophysical Union. New Orleans, LA, USA
206. \*Chapman, E., T.E. Idowu, M. Gangadharan, and **J.A. Puleo**. 2022. Migration and burial of variable density munitions in the nearshore, AGU Ocean Sciences Meeting, Honolulu, HI.
205. Feagin, R.A., R.A. Innocenti, H. Bond, M. Wengrove, T.P. Huff, P. Lomanaco, V.C. Ceron, R. Silva, B. Tsai, J. Figlus, M. Pontiki, **J.A. Puleo**, T. -J. Hsu. 2022. Does coastal dune vegetation accelerate wave erosion during extreme events?, AGU Ocean Sciences Meeting, Honolulu, HI.
204. \*Williams, O., C. Everett, E. Ruggiero, F. Shi, J. Bruck, **J.A. Puleo**, and M. Malej. 2022. Funwave ship wake simulations near a living shoreline installment, AGU Ocean Sciences Meeting, Honolulu, HI.
203. \*Idowu, T., M. Gangadharan, E. Chapman, and **J.A. Puleo**. 2022. Quantification of the mobility and burial of variable density munitions under single event forcing, AGU Ocean Sciences Meeting, Honolulu, HI.
202. \*Mazur, E., O. Amante, **J.A. Puleo**, F. Shi, S. Smallegan and B. Webb. 2022. Urban coastal flooding pathways during storm events, AGU Ocean Sciences Meeting, Honolulu, HI.
201. \*Olney, C., **J.A. Puleo** and A. Torres-Freyermuth. 2022. Validating and modeling hydrodynamics under double dam break driven swash using Reynolds-averaged Navier-Stokes equations, AGU Ocean Sciences Meeting, Honolulu, HI.
200. \*Gangadharan, M.K., J.K. Paskoski, W.E. Wengrove and **J.A. Puleo**. 2022. Comparative analysis of three LiDAR systems for estimating wave transformation and morphodynamics under the influence of a double dam break, AGU Ocean Sciences Meeting, Honolulu, HI.
199. Lashley, C.H., **J.A. Puleo** and F. Shi. 2022. The contribution of wave setup and infragravity waves to coastal flooding at Norfolk (VA, USA) during extreme events, AGU Ocean Sciences Meeting, Honolulu, HI.
198. **Puleo, J.A.** and H. Malladi. 2022. Making waves: high school coastal processes education using small-scale wave flumes, AGU Ocean Sciences Meeting, Honolulu, HI.
197. Calantoni, J., T. -J. Hsu, and **J.A. Puleo**. 2022. On the scaling of sediments in laboratory experiments and numerical simulations, AGU Ocean Sciences Meeting, Honolulu, HI.
196. Torres-Freyermuth, A., G. Medellin, G.U. Martin, and **J.A. Puleo**. 2022. A Virtual laboratory for teaching water wave mechanics, AGU Ocean Sciences Meeting, Honolulu, HI.
195. \*Horney, B., M. Gangadharan, T. Idowu, E. Chapman, **J.A. Puleo**, and R. Mieras. 2021. Comparing a low-cost 2D LIDAR to solid-state lidar by scanning bed evolution under double dam break driven swash, 7<sup>th</sup> Young Coastal Scientists and Engineers Conference Americas, Myrtle Beach, South Carolina.
194. \*Idowu, T., M. Gangadharan, E. Chapman, **J.A. Puleo**, J. Stolle, D. Pham van Bang, and R. Mulligan, 2021. Impact of varying bulk densities on munitions mobility, burial and exposure under single event forcing in nearshore environments, SERDP/ESTCP Symposium, Washington, DC
193. \*Gangadharan, M., T. Idowu, E. Chapman, and **J.A. Puleo**. 2021. Simulating the motion of UXOs under the influence of double dam break forcing using Dual SPHysics, SERDP/ESTCP Symposium, Washington, DC.

192. **Puleo, J.A.**, F. Shi, C. Lashley, C. Dietrich, A. van Dongeren, K. Nederhoff, S. Smallegan, J. Figlus, C. Storlazzi. 2021. Comparative assessment of total water levels for coastal military facility readiness and resilience using numerical models, SERDP/ESTCP Symposium, Washington, DC.
191. **\*Puleo, J.A.**, T. Idowu, M. Gangadharan, E. Chapman, J. Stolle, D. Pham van Bang, and R. Mulligan. 2021. Mobility and Burial of Variable Density Munitions in the Inner Surf and Swash Zones during Controlled Extreme Forcing, SERDP/ESTCP Symposium, Washington, DC.
190. **\*Idowu, T.**, M. Gangadharan, E. Chapman, and **J.A. Puleo**. 2021. Quantifying the migration and burial of variable density munitions in the nearshore under controlled extreme forcing, 7<sup>th</sup> Young Coastal Scientists and Engineers Conference Americas, Myrtle Beach, South Carolina.
189. **\*Pontiki, M.**, and **J.A. Puleo**. 2021. Sediment transport dynamics across a coupled berm-dune system, 7<sup>th</sup> Young Coastal Scientists and Engineers Conference Americas, Myrtle Beach, South Carolina.
188. **\*Amante, O.**, E. Mazur, **J.A. Puleo**, S. Smallegan and B. Webb. **2021**. Measurement and Modeling of Intra-Event Processes, 7<sup>th</sup> Young Coastal Scientists and Engineers Conference Americas, Myrtle Beach, South Carolina.
187. **\*Williams, O.**, C. Everett, E. Ruggiero, **J.A. Puleo**, J. Bruck, and F. Shi. 2021. Funwave ship wake simulations near a living shoreline installment, 7<sup>th</sup> Young Coastal Scientists and Engineers Conference Americas, Myrtle Beach, South Carolina.
186. **\*Gangadharan, M.**, C. Olney, E. Chapman, T. Idowu, **J.A. Puleo**, and A. Torres-Freyermuth. 2021. Simulating swash zone dynamics under the influence of a double dam break, 7<sup>th</sup> Young Coastal Scientists and Engineers Conference Americas, Myrtle Beach, South Carolina.
185. **\*Mazur, E.**, O. Amante, **J.A. Puleo**, F. Shi, S. Smallegan and B. Webb. 2021. Urban coastal flooding pathways during storm events, 7<sup>th</sup> Young Coastal Scientists and Engineers Conference Americas, Myrtle Beach, South Carolina.
184. **\*Olney, C.**, **J.A. Puleo** and A. Torres-Freyermuth. 2021. Modeling hydrodynamics under double dam break driven swash using Reynolds-averaged Navier-Stokes equations, 7<sup>th</sup> Young Coastal Scientists and Engineers Conference Americas, Myrtle Beach, South Carolina.
183. **\*Eley, M.**, E. Chapman, T. Idowu, M. Gangadharan, and **J.A. Puleo**. 2021. Horizontal and vertical pore pressure gradients and sediment response under double dam break driven swash event, 7<sup>th</sup> Young Coastal Scientists and Engineers Conference Americas, Myrtle Beach, South Carolina.
182. **\*Pontiki, M.**, **J.A. Puleo**, H. Bond, S.B. Lee., M. Wengrove, R. Innocenti, R. Feagin. 2021. Simulating Mantoloking dune erosion under hydrodynamics driven by Hurricane Sandy, AGU Fall Meeting, New Orleans, LA.
181. **\*Pontiki, M.**, **J.A. Puleo**, H. Bond, S.B. Lee., M. Wengrove, R. Innocenti, R. Feagin. 2021. Linkages between dune morphodynamic processes and erosive hydrodynamics, AGU Fall Meeting, New Orleans, LA.
180. **\*Chapman, E.**, T. Idowu, M. Gangadharan, and **J.A. Puleo**. 2021. Variable density munitions motion in the swash zone, 7<sup>th</sup> Young Coastal Scientists and Engineers Conference Americas, Myrtle Beach, South Carolina.



179. \*Gangadharan, M., and **J.A. Puleo**. 2021. Dual Physics as a tool for simulating swash zone dynamics under the influence of a double dam break, ASBPA National Conference, New Orleans, LA.
178. \*Idowu, T., M. Gangadharan, E. Chapman, **J.A. Puleo**, J. Stolle, D. Pham van Bang, and R. Mulligan. 2021. Experimental framework for observing the physical behavior of variable density munitions in swash and inner surf zones under extreme storm events, ASBPA National Conference, New Orleans, LA.
177. \*Amante, O. E. Mazur, **J.A. Puleo**, B. Webb, S. Smallegan. 2021. Measurement and modeling of intra-event processes, ASBPA National Conference, New Orleans, LA.
176. \*Mazur, E., O Amante, R. Martin, and **J.A. Puleo**. 2021. Instantaneous bed level sensor for intrawave monitoring on a beach, ASBPA National Conference, New Orleans, LA.
175. \*Olney, C. and **J.A. Puleo**. 2021. Pressure gradients under double dam break driven swash, ASBPA National Conference, New Orleans, LA.
174. **Puleo, J.A.** and H. Malladi. 2021. High school STEM engagement using portable wave flumes, ASBPA National Conference, New Orleans, LA.
173. \***Puleo, J.A.**, H. Malladi, K. Rumaker, E. Noe. 2021. Making waves in the classroom; Engaging high school STEM students in coastal dynamics using portable wave flumes, Coastal Dynamics '21, Delft, The Netherlands.
172. \*Mazur, E., O. Amante, **J.A. Puleo**, F. Shi, S. Smallegan, B. Webb. 2010. Urban coastal flooding pathways during storm events, Coastal Dynamics '21, Delft, The Netherlands.
171. \*Olney, C., **J.A. Puleo** and A. Torres-Freyermuth. 2021. Pressure gradients under dam break driven swash, Coastal Dynamics '21, Delft, The Netherlands.
170. \*Amante, O., E. Mazur, **J.A. Puleo**, S. Smallegan and B. Webb. 2021. Measurement and modeling of intra-event processes on a steep beach, Coastal Dynamics '21, Delft, The Netherlands.
169. \*Pontiki, M., **J.A. Puleo**, S.-B. Lee, M. E. Wengrove, T. Huff, R. Feagin, Y. Rafati, and T.-J. Hsu, Sediment flux variability in the proximity of dunes, Coastal Dynamics '21, Delft, The Netherlands.
168. Wengrove, M.E., H. Bond., M. Pontiki, and **J.A. Puleo**. 2021. Beach dune subsurface hydrodynamics and the formation of dune scarps, Coastal Dynamics '21, Delft, The Netherlands.
167. \*Rafati, Y., B. Tsai, T.-J. Hsu, M. Pontiki, **J.A. Puleo**, S.-B. Lee, M. E. Wengrove and D. Cox. 2021. Phase-resolving simulation of waves, currents and sediment fluxes in a large flume under storm waves scenarios, Coastal Dynamics '21, Delft, The Netherlands.
166. \*Tsai, B., Y. Rafati, T.-J. Hsu, M. Pontiki, **J.A. Puleo**, S.-B. Lee, M. E. Wengrove and D. Cox. Large eddy simulation of cross-shore hydrodynamics under random waves in the surf and swash zones. 2021. Coastal Dynamics '21, Delft, The Netherlands.
165. \*Lee, S.-B., M. E. Wengrove, D. Cox, M. Pontiki, **J.A. Puleo**, T.-J. Hsu, and Y. Rafati. 2021. Large-scale laboratory observations of sandbar formation, offshore migration, and growth during a dune scarping event, Coastal Dynamics '21, Delft, The Netherlands.
164. \*Larner, M., **J.A. Puleo**, F. Shi and R. Schaefer. 2020. Relative impacts of wind- and ship-generated waves on an estuarine island. American Shore & Beach Preservation Association National Coastal Conference: Navigating Stormy Times, Oct 13-16.
163. \*Rumaker, K., **J.A. Puleo**, J. Figlus, Y. Song, and J. Faries, 2020, Assessing morphodynamics and dredged sand placement effectiveness north of Indian

- River Inlet DE, American Shore & Beach Preservation Association National Coastal Conference: Navigating Stormy Times, Oct 13-16.
162. \*Pontiki, M., **J.A. Puleo**, R.A. Feagin, M. Wengrove, T.-J. Hsu and D. Cox. 2020. Laboratory Study of Swash-zone Dynamics on Dune Erosion. International Conference on Coastal Engineering.
161. \*Pontiki, M., H. Bond, R. Innocenti, **J.A. Puleo**, M. Wengrove, and R.A. Feagin. 2020. Swash Zone Berm Nourishment Morphodynamics in a Physical Model. American Shore & Beach Preservation Association National Coastal Conference: Navigating Stormy Times, Oct 13-16.
160. Rutten, J., A. Torres-Freyermuth, **J.A. Puleo**. 2020. Assessing uncertainty in the modeling of runup and swash morphodynamics using XBeach. vICCE.
159. \*Bond, H., M. Wengrove, M. Pontiki, **J.A. Puleo**, R. Feagin. 2020. Beach dune subsurface hydrodynamics and the formation of dune scarps. American Geophysical Union Fall Meeting.
158. \*Pontiki, M., Bond, H., Lee, S.B., **J.A. Puleo**., M. Wengrove, R. Feagin. 2020. Quantifying Sediment Transport Across a Rapidly Eroding Berm. American Geophysical Union Fall Meeting.
157. \*Pontiki, M., Bond, H., Lee, S.B., **J.A. Puleo**., M. Wengrove, R. Feagin. 2020. Physical Modeling on Dune Erosion: Design, Instrumentation and Experimental Observations. American Geophysical Union Fall Meeting.
156. \*Larner, M., **J.A. Puleo**, F. Shi, M. Malej. 2020. Analysis of Ship-Generated Hydrodynamic Characteristics in the Delaware River. American Geophysical Union Fall Meeting.
155. **Puleo, J.A.** 2020. Making Waves in the Classroom – Engaging Students in STEM through Hands-on Coastal Oceanography and Engineering. AGU Ocean Sciences Meeting, San Diego, CA.
154. Rutten, J., A. Torres-Freyermuth, **J.A. Puleo**. 2020. Assessing uncertainty in the modeling of runup and swash morphodynamics using XBeach. 37<sup>th</sup> International Conference on Coastal Engineering, virtual.
153. Webb, B.M., J. Coogan, S. Smallegan, **J.A. Puleo**. 2020. Observations of storm tides, waves, and erosion on a low-lying barrier island during Hurricane Nate. AGU Ocean Sciences Meeting, San Diego, CA.
152. \*Bond, H., M. Wengrove, **J.A. Puleo**, R. Feagin, and B. Montoya. 2020. Observations of water content and fluid pressure within the interior of an eroding beach dune. AGU Ocean Sciences Meeting, San Diego, CA.
151. Rutten, J., A. Torres-Freyermuth, and **J.A. Puleo**. 2020. Uncertainty in phase-resolving numerical modeling of coastal flooding and erosion. AGU Ocean Sciences Meeting, San Diego, CA.
150. \*Pontiki, M., **J.A. Puleo**. 2020. Laboratory study of swash-zone dynamics on dune erosion. 37<sup>th</sup> International Conference on Coastal Engineering, virtual.
149. \*Antonio, S.D., J. van der Werf, B. Vermeulen, I. Caceres, J. Alsina, M. Larner, **J.A. Puleo** and S. Hulscher. 2020. Cross-shore Sediment Transport in the Swash

- Zone: Large-Scale Laboratory Experiments. 37<sup>th</sup> International Conference on Coastal Engineering, Sydney, Australia.
148. \*Pontiki, M., **J.A. Puleo**, R. Feagin, M. Wengrove, T. -J. Hsu, and D. Cox. 2020. Wave-induced sediment transport in a coupled berm-dune system: a near prototype experiment. AGU Ocean Sciences Meeting, San Diego, CA.
  147. **Puleo, J.A.** 2019. Intra-storm Erosion Processes on Steep Beaches and Dunes. ASBPA National Conference, Myrtle Beach, South Carolina.
  146. \***Puleo, J.A.** and D. Cristaudo. 2019. Mobility of Instrumented Unexploded Ordnance in the Nearshore Environment. SERDP/ESTCP Symposium, Washington, DC.
  145. Kim, Y., R. S. Mieras, Z. Cheng, D. Anderson, T.-J. Hsu, J. Chauchat, **J. A. Puleo**, and D. Cox. 2019. A free-surface resolving Eulerian two-phase model and its application to sheet flow driven by surface waves. Two-Phase Modeling for Sediment Dynamics Conference, Newark, DE
  144. \*Innocenti, R., R. Feagin, B. Charbonneau, T. Huff, J. Figlus, **J. A. Puleo**, M. Wengrove, D. Cox, and T. Hsu. 2019. Relating dune grass structure to wind- and wave-induced lift forces and drag moments, and the propensity to uproot during extreme events. 6<sup>th</sup> Young Coastal Scientists and Engineers Conference – Americas, Corvallis, Oregon.
  143. \*Pontiki, M., R. Innocenti, H. Bond, T. Huff, **J.A. Puleo**, R. Feagin, M. Wengrove, and D. Cox. 2019. Experimental Investigation of The Response of Vegetated Dunes to Extreme Wave Conditions. 6<sup>th</sup> Young Coastal Scientists and Engineers Conference – Americas, Corvallis, Oregon.
  142. \*Cargill, S and **J.A. Puleo**. 2019. Quantifying Beach Profile Change Using Passive Photocell Sensors. 6<sup>th</sup> Young Coastal Scientists and Engineers Conference – Americas, Corvallis, Oregon.
  141. Rutten, J., A. Torres-Freyermuth, and **J.A. Puleo**. 2019. Uncertainty in the prediction of coastal flooding and erosion. International Conference on Coastal Resilience, Merida, Mexico.
  140. \*Borrell, S. and **J.A. Puleo**. 2019. In-situ Hydrodynamic and Morphodynamic Measurements During Extreme Storm Events. Delaware Applied Coastal Research Symposium, Newark, DE.
  139. \* Pontiki, M., B. Tsai, **J.A. Puleo** and T. Hsu. 2019. Near Prototype Experimental Study of Dune Erosion Physics (DUNE3). Delaware Applied Coastal Research Symposium, Newark, DE.
  138. \*Borrell, S. and **J.A. Puleo**. 2019. In Situ Hydrodynamic and Morphodynamic Measurements During Extreme Storm Events. National Conference on Beach Preservation Technology, Florida Shore and Beach Preservation Association, St. Augustine, FL.
  137. \*Gross, B.M. and **J.A. Puleo**. 2019. Mobility of Unexploded Ordnance using Spherical Surrogates on the Beach Face. National Conference on Beach Preservation Technology, Florida Shore and Beach Preservation Association, St. Augustine, FL.

136. **Puleo, J.A.** 2019. Nearly forty years of excellence at the Center for Applied Coastal Research. National Conference on Beach Preservation Technology, Florida Shore and Beach Preservation Association, St. Augustine, FL.
135. \*Cristaudo, D. and **J.A. Puleo**. 2018. Mobility of Instrumented Unexploded Ordnance in the Nearshore Environment. American Geophysical Union Fall Meeting, Washington, DC.
134. \*Gross, B., D. Cristaudo, and **J.A. Puleo**. 2018. Mobility of Unexploded Ordnance using Spherical Surrogates in the Swash Zone. American Geophysical Union Fall Meeting, Washington, DC.
133. \*Borrell, S. and **J.A. Puleo**. 2018. In situ hydrodynamic and morphodynamic measurements during extreme storm events. American Geophysical Union Fall Meeting, Washington, DC.
132. \*Cristaudo, D. and **J.A. Puleo**. 2018. Analysis of the transport of instrumented surrogate munitions deployed in the swash zone of a large-scale laboratory beach. European Geophysical Union, Vienna Austria.
131. \*Gross, B., **J.A. Puleo** and D. Cristaudo. 2018. Mobility of Unexploded Ordnance using Spherical Surrogates in the Swash Zone. SERDP/ESTCP Symposium, Washington, DC.
130. \***Puleo, J.A.**, D. Cristaudo, B. Gross. 2018. Mobility of Instrumented Unexploded Ordnance in the Nearshore Environment. SERDP/ESTCP Symposium, Washington, DC.
129. \*Borrell, S. and **J.A. Puleo**. 2018. In situ hydrodynamic and morphodynamic measurements during extreme storm events. Young Coastal Scientists and Engineers Conference – Americas, Merida, Yucatan, Mexico.
128. \*Cristaudo, D. and **J.A. Puleo**. 2018. Long term behavior of unexploded ordnance in the nearshore environment. Young Coastal Scientists and Engineers Conference – Americas, Merida, Yucatan, Mexico.
127. \*Gross, B. and **J.A. Puleo**. 2018. Mobility of Unexploded Ordnance using Spherical Surrogates in the Swash Zone. Young Coastal Scientists and Engineers Conference – Americas, Merida, Yucatan, Mexico.
126. \*Kim, Y., T. –J Hsu, R.S. Mieras, Z. Cheng and **J.A. Puleo**. 2018. Modeling sheet flow under breaking waves on a surf zone sandbar. International Conference on Coastal Engineering. Baltimore, MD.
125. \*Mieras, R.S., **J.A. Puleo**, D. Anderson, D. Cox and T.-J Hsu. 2018. Observations of horizontal and vertical sediment fluxes on a sandbar in the suspended and sheet flow layers. International Conference on Coastal Engineering. Baltimore, MD.
124. Fromant, G., T. Revil-Baudar, R.S. Mieras, D. Hurther, J. Chauchat and **J.A. Puleo**. 2018. On bedload measurements performances of high-resolution acoustic (ACVP) and conductivity (CCP) profilers. RiverFlows. Lyon, France.
123. \*Kim, Y., R. Mieras, Z. Cheng, T.-J Hsu, and **J.A. Puleo**. 2018. An Eulerian two-phase simulation of wave-induced sediment transport on a surf zone sandbar. AGU Ocean Sciences Meeting, Portland, OR.

122. \***Puleo, J.A.** and D. Cristaudo. 2017. Nearshore unexploded ordnance studies using instrumented surrogate munitions. SERDP/ESTCP Symposium, Washington, DC.
121. \*Cristaudo, D. **J.A. Puleo**, and B. Bruder. 2017. Instrumented surrogate munitions for nearshore unexploded ordnance mobility studies - design and measurement capabilities. IEEE/MTS Oceans Conference, Anchorage, Alaska.
120. \*Mieras, R.S., **J.A. Puleo**, D. Anderson, D.T. Cox and T.-J. Hsu. 2017. Large-scale experimental observations of wave-induced sediment transport over a surf zone sandbar. Young Coastal Scientists and Engineers Conference - Americas, Dauphin Island, AL.
119. \*Kim, Y., Z. Cheng, T.-J. Hsu, R. Mieras and **J.A. Puleo**. 2017. An Eulerian three-phase model of sheet flow under breaking waves. Young Coastal Scientists and Engineers Conference - Americas, Dauphin Island, AL.
118. \*Cristaudo, D., B. Bruder and **J.A. Puleo**. 2017. Preliminary results of a munitions mobility study in the swash zone. Young Coastal Scientists and Engineers Conference - Americas, Dauphin Island, AL.
117. Song, Y.K., J. Figlus, **J.A. Puleo** and P. Chardon-Maldonado. 2017. Inner Surf/ Swash Zone Morphodynamic Numerical Model Simulation of an Accreting Ridge during Low-Energy Wave Conditions. European General Assembly, Vienna, Austria.
116. \*Bruder, B., D. Cristaudo and **J.A. Puleo**. 2016. Observing migration and burial of unexploded ordnance in the nearshore environment with instrumented surrogates. AGU Fall Meeting, San Francisco, CA.
115. \*Anderson, D.L., D.T. Cox, R. Mieras, **J.A. Puleo** and T.J. Hsu. 2016. Instantaneous sediment bed level response to wave-induced pore-pressure gradients on a surfzone sandbar. AGU Fall Meeting, San Francisco, CA.
114. \*Cristaudo, D., B. Bruder and **J.A. Puleo**. 2016. Quantification of hydrodynamic forcing on smart munitions on the beach face – design of smart munitions. AGU Fall Meeting, San Francisco, CA.
113. \***Puleo, J.A.**, J.C. Pintado-Patino, D. Krafft and B. Bruder. 2016. Sediment particle velocities in the sheet layer of dam break driven swash. AGU Fall Meeting, San Francisco, CA.
112. \*Krafft, D. and **J.A. Puleo**. 2016. Drifter study of circulation near Indian River Inlet, DE. AGU Fall Meeting, San Francisco, CA.
111. \*Kim, Y., Z. Cheng, T.J. Hsu, R. Mieras, and **J.A. Puleo**. 2016. A numerical study of wave-induced sediment transport - coupling sedFoam and waves2Foam. AGU Fall Meeting, San Francisco, CA.
110. Mieras, R., **J.A. Puleo**, D. Anderson, D.T. Cox, and T.J. Hsu. 2016. From the sand bed to the free surface: an experimental study of wave-induced sediment transport over a sandbar. AGU Fall Meeting, San Francisco, CA.
109. Doelp, M., **J.A. Puleo**, P. Cowan, W. Carey, and M. Arford-Granholm. 2016. Surf Zone Injuries and Beach Safety along the Delaware Coast: Associated

- Hydrodynamic and Morphological Factors. AGU Fall Meeting, San Francisco, CA.
108. \*Mieras, R., **J.A. Puleo**, D. Anderson, D.T. Cox and T.-J. Hsu. 2016. Wave-induced sheet flow on a sandbar: roles of the pressure gradient and bed shear stress. Society of Engineering Science Conference, University of Maryland, College Park, MD.
  107. \*Cristaudo, D., B. Bruder and **J.A. Puleo**. 2016. Quantification of hydrodynamic forcing on smart munitions in a large wave flume – experimental plan and design of smart munitions. Young Coastal Scientists and Engineers Conference - Americas, Kingston, Ontario, Canada.
  106. \*Murshid, S., **J.A. Puleo** and D.L. Kriebel. 2016. Impacts of beach nourishment on surf zone wave characteristics and morphology. Young Coastal Scientists and Engineers Conference - Americas, Kingston, Ontario, Canada.
  105. \*Chardon-Maldonado, P., **J.A. Puleo** and A. Torres-Freyermuth. 2016. Inner-surf and swash-zone dynamics on a sea-breeze dominated beach. Young Coastal Scientists and Engineers Conference - Americas, Kingston, Ontario, Canada.
  104. \*Belivanis, D., **J.A. Puleo** and D.L. Kriebel. 2016. Modeling of beach morphology evolution under storm condition for different beach fill scenarios. Young Coastal Scientists and Engineers Conference - Americas, Kingston, Ontario, Canada.
  103. \*Doelp, M. and **J.A. Puleo**. 2016. Surf zone injuries and beach safety along the Delaware coast: associated hydrodynamic and morphological factors. Young Coastal Scientists and Engineers Conference - Americas, Kingston, Ontario, Canada.
  102. \*Krafft, D. and **J. A. Puleo**. 2016. Drifter study of circulation near Indian River Inlet, DE. Young Coastal Scientists and Engineers Conference - Americas, Kingston, Ontario, Canada.
  101. \*Kim, Y., T.J. Hsu, Z. Zhou, and **J.A. Puleo**. 2016. Modeling dam-break driven swash using a large-eddy simulation. Young Coastal Scientists and Engineers Conference - Americas, Kingston, Ontario, Canada.
  100. \*Mieras, R., **J.A. Puleo**, D. Anderson, D.T. Cox and T.J. Hsu. 2016. Large-scale experimental observations of wave-induced sheet flow on a sandbar: roles of bed shear stress and pressure gradient. Young Coastal Scientists and Engineers Conference - Americas, Kingston, Ontario, Canada.
  99. \*Kim, Y., Z. Zhou, T. –J. Hsu and **J.A. Puleo**. 2016. Turbulent coherent structure under dam-break driven swash – A 3D numerical study. EC12A-03. AGU Ocean Sciences Meeting, New Orleans, LA.
  98. \*Alrushaid, T., J. Figlus, A. Torres-Freyermuth, **J.A. Puleo** and T. Dellapenna. 2016. Surf Zone Sediment Size Variation, Morphodynamics, and hydrodynamics during sea/land breeze and El-Norte storm in Sisal, Yucatan, Mexico. EC24B-1098. AGU Ocean Sciences Meeting, New Orleans, LA.

97. \*Krafft, D., **J.A. Puleo**, and J.C. Pintado-Patino. 2016. Quantification of swash-zone velocities in the sheet flow layer using particle image velocimetry. EC14C-1002. AGU Ocean Sciences Meeting, New Orleans, LA.
96. \*Bruder, B., D. Cristaudo and **J.A. Puleo**. 2016. Quantification of hydrodynamic forcing on spherical objects in the swash zone. EC14C-0997. AGU Ocean Sciences Meeting, New Orleans, LA.
95. \*Pintado-Patino, J., A. Torres-Freyermuth and **J.A. Puleo**. 2016. On the role of swash-swash interaction in swash zone dynamics. EC11A-03. AGU Ocean Sciences Meeting, New Orleans, LA.
94. \*Torres-Freyermuth, A., **J.A. Puleo**, N. DiCosmo, J. de la Roza, B. Figueroa, A. Ruiz de Alegria-Arzaburu, J. Lopez-Gonzalez, and M.E. Allenda-Arandia. 2016. Nearshore coastal dynamics during intense winds: Local and synoptic scale events. EC11A-08. AGU Ocean Sciences Meeting, New Orleans, LA.
93. \*Chardon-Maldonado, P., **J.A. Puleo** and A. Torres-Freyermuth. 2016. Field observations of swash-zone dynamics on a sea-breeze dominated beach at the Yucatán Peninsula, México. EC14C-1001. AGU Ocean Sciences Meeting, New Orleans, LA.
92. \*J. Lopez-Casillejos, A.R. de Alegria-Arzaburu, A. Torres-Freyermuth, **J.A. Puleo**, H. Garcia-Nava and R. Guardado-France. 2015. Morfodinamica de brisas sumergidas durante eventos de brisa y vientos de mesoscale en una playa micromareal. UGM Annual Meeting, Puerto Vallarta, Jalisco, Mexico.
91. \*Pintado-Patino, J.C., A. Torres-Freyermuth, **J.A. Puleo** and D. Pokrajac. 2015. Sobre el rol de la infiltracion en la dinamica de la zona de swash. UGM Annual Meeting, Puerto Vallarta, Jalisco, Mexico.
90. Torres-Freyermuth, A., **J.A. Puleo**, DiCosmo, N., J. de la Roza and B. Figueroa. 2015. Dinamica costera en una playa micro-mareal dominado por brisas marinas, Parte 1. Hidrodinamica costera. UGM Annual Meeting, Puerto Vallarta, Jalisco, Mexico.
89. \*Heiss, J.W., **J.A. Puleo**, W. J. Ullman and H.A. Michael. 2015. Temporal and spatial variability of sediment saturation and groundwater-surface water exchange patterns at swash and tidal time scales in the intertidal zone. AGU Fall Meeting, San Francisco, CA.
88. \*Belivanis, D., **J.A. Puleo** and D. Kriebel. 2015. Evolution of beach profiles and sediment grain distribution following beach nourishment. ASBPA National Conference 15, New Orleans, LA.
87. \*Murshid, S., **J.A. Puleo** and D. Kriebel. 2015. Assessment of beach and surf zone modifications due to beach nourishment practices on the Delaware coast. ASBPA National Conference 15, New Orleans, LA.
86. \*DiCosmo, N. and **J.A. Puleo**. 2015. Hydrodynamics offshore of the downdrift beach of Indian River Inlet, DE. Young Coastal Scientists and Engineers Conference- North America, Newark, DE.

85. \*Chardon-Maldonado, P., **J.A. Puleo** and J. Figlus. 2015. Near-bed turbulence dissipation and suspended sediment measurements in the swash zone. Young Coastal Scientists and Engineers Conference- North America, Newark, DE.
84. \*Mieras, R. and **J.A. Puleo**. 2015. Near-bed sediment transport over a sandbar under breaking waves. Young Coastal Scientists and Engineers Conference- North America, Newark, DE.
83. \*Krafft, D. and **J.A. Puleo**. 2015. Quantification of swash-zone velocities in the sheet flow layer using particle image velocimetry. Young Coastal Scientists and Engineers Conference- North America, Newark, DE.
82. \*Murshid, S.M., **J.A. Puleo** and D. Kriebel. 2015. A Numerical approach to understand the impacts of beach and surf zone modifications due to beach nourishment practices in Bethany Beach, Delaware. Young Coastal Scientists and Engineers Conference- North America, Newark, DE.
81. \*Belivanis, D., **J.A. Puleo** and D. Kriebel. 2015. Evolution of beach profiles and sediment grain distribution following beach nourishment. Young Coastal Scientists and Engineers Conference- North America, Newark, DE.
80. \*Pieterse, A., **J.A. Puleo** and T. E. McKenna. 2015. Flow velocity, shear stress, and turbulence in man-made channels within a tidal wetland. Young Coastal Scientists and Engineers Conference- North America, Newark, DE.
79. McKenna, T.E., **J.A. Puleo** and A. Pieterse. 2014. Thermal imaging of hydrologic processes in streams and wetlands in the Delaware Estuary Watershed, Delaware and Pennsylvania. Delaware Estuary Conference.
78. Ojeda Casillas, E., E.T. Mendoza Ponce, A. Torres-Freyermuth and **J.A. Puleo**. 2014. Mediciones del remonte del oleaje en la playa de sisal (Yucatan) a partir de imagenes de video. Unión Geofísica Mexicana.
77. Calantoni, J., M.L. Palmsten, J. Simeonov, D.W. Dobson, K.Zarske, **J.A. Puleo** and K.T. Holland. 2014. Combining remote sensing with in situ measurements for riverine characterization, EP44B-08, 2014 Fall Meeting, AGU, San Francisco, Calif.
76. \*Pintado-Patino, J.C., A. Torres-Freyermuth, **J.A. Puleo** and D. Pokrajac. 2014. Numerical and laboratory investigation of turbulence dissipation in the swash zone, OS11A-1263, 2014 Fall Meeting, AGU, San Francisco, Calif.
75. Allis, M., C.E. Blenkinsopp, I.L. Turner, T.E. Baldock and **J.A. Puleo**. 2014. Investigation of the logarithmic model applied to bed shear stresses in the swash zone, OS21E-07, 2014 Fall Meeting, AGU, San Francisco, Calif.
74. \*O'Neill, B., S. Marks, Skalak, K. **J.A. Puleo**, Wilcock, P.R. and J.E. Pizzuto. 2014. Evolution of fine-grained channel margin deposits behind large woody debris in an experimental gravel-bed flume, EP13A-3503, 2014 Fall Meeting, AGU, San Francisco, Calif.
73. \*Chardon-Maldonado, P., **J.A. Puleo** and J. Figlus. 2014. In-situ observations of swash zone flow velocities and sediment transport on a steep beach, OS23B-1185, 2014 Fall Meeting, AGU, San Francisco, Calif.



72. \*Pieterse, A., **J.A. Puleo** and T.E. McKenna. 2014. Shear stress, turbulence production and dissipation in small tidal channels intersecting a tidal flat, OS23B-1198, 2014 Fall Meeting, AGU, San Francisco, Calif.
71. \*DiCosmo, N.R. and **J.A. Puleo**. 2014. Hydrodynamics offshore of the north beach of Indian River Inlet, DE, OS13B-02, 2014 Fall Meeting, AGU, San Francisco, Calif.
70. \*Torres-Freyermuth, A., **J.A. Puleo**, A. Ruiz de Alegría-Arzaburu, J. Figlus, T. Mendoza, J.C. Pintado-Patino, A. Pieterse, P. Chardon-Maldonado, N.R. DiCosmo, N. Wellman, H. Garcia-Nava, L. Palemón-Arcos, T. Roberts, J. López-González, M. Bravo<sup>1</sup>, E. Ojeda, G. Medellín, C. Mario Appendini, B. Figueroa, Ma. González-Leija, C. Enriquez, A. Pedrozo-Acuña and P. Salles. 2014. Nearshore coastal dynamics on a sea-breeze dominated micro-tidal beach (NCSAL), OS11A-1266, 2014 Fall Meeting, AGU, San Francisco, Calif.
69. DiCosmo N. and **J.A. Puleo**. 2014. Hydrodynamics along the north beach of Indian River Inlet, Delaware. ASBPA National Conference 14, Virginia Beach, VA.
68. \*Chardon-Maldonado, P., **J.A. Puleo** and J. Figlus. 2014. Field study of swash-zone dynamics at South Bethany Beach, Delaware. ASBPA National Coastal Conference, Virginia Beach, VA.
67. \*Pintado-Patino, J.C., A. Torres-Freyermuth, **J.A. Puleo** and D. Pokrajac. 2014. Modeling bottom boundary layer dynamics in the swash zone. T4-03. Young Coastal Scientists and Engineers Conference- North America.
66. \*Heiss, J.W., **J.A. Puleo** and H.A. Michael. 2014. The effects of wave runup on moisture dynamics and groundwater flow in the saturated and unsaturated zones of a beach aquifer. T7-05. Young Coastal Scientists and Engineers Conference- North America.
65. \*Keshtpoor, M., **J.A. Puleo**, F. Shi, and G. Ma. 2014. Modeling of scour hole evolution inside the Indian River Inlet, DE, USA. P1-01. Young Coastal Scientists and Engineers Conference- North America.
64. \*Pieterse, A., **J.A. Puleo** and T.E. McKenna. 2014. Shear stress, turbulence production and dissipation in a tidal saltmarsh in Kent County, Delaware. T7-02. Young Coastal Scientists and Engineers Conference- North America.
63. \*DiCosmo, N. and **J.A. Puleo**. 2014. Hydrodynamics near Indian River Inlet, DE. T7-06. Young Coastal Scientists and Engineers Conference- North America.
62. \*Chardon-Maldonado, P., **J.A. Puleo** and J. Figlus. 2014. Field observations of the swash zone hydrodynamics and morphodynamic change. T7-07, Young Coastal Scientists and Engineers Conference- North America.
62. \*Pieterse, A., **J.A. Puleo**, and T.E. McKenna, 2013. Near-bed turbulent kinetic energy and dissipation in a small tidal channel. GSA Annual Meeting, Denver, CO.
61. \***Puleo, J.A.**, T. Lanckriet, C. Blenkinsopp, 2013. Bed level fluctuations on a dissipative beach, EP13A-0851, presented at the 2011 Fall Meeting, AGU, San Francisco, Calif.

60. \*Pieterse, A., **J.A. Puleo**, T.E. McKenna, 2013. Hydrodynamics and inundation of a tidal saltmarsh in Kent County, Delaware, EP13A-0850, 2011 Fall Meeting, AGU, San Francisco, Calif.
59. \*Lanckriet, T., **J.A. Puleo**. and D.L. Foster. 2013. Large-scale laboratory measurements of sheet flow sediment transport in the swash zone, EP21A-04, presented at the 2011 Fall Meeting, AGU, San Francisco, Calif.
58. \*Keshtpoor, M., **J.A. Puleo** and F. Shi. 2013. Numerical simulation of alongshore variation of sediment transport rate downdrift of a tidal inlet, EP21A-06, 2011 Fall Meeting, AGU, San Francisco, Calif.
57. \*Keshtpoor M., **J.A. Puleo** and F. Shi. 2013. Downdrift beach erosion adjacent to the Indian River Inlet, Delaware, USA., NSBPA Conference, The Richard Stockton College of New Jersey, Galloway, New Jersey.
56. \*Pieterse, A., **J.A. Puleo** and T. McKenna. 2013. Hydrodynamics of a small tidal channel in Kent County, Delaware. Amtrak Club Conference, Baltimore, MD.
55. \*Keshtpoor M., **J.A. Puleo** and F. Shi. 2012. Sediment transport modeling within a tidal inlet., Soil to Sea Geomorphology, Amtrak Club Conference, Philadelphia, PA.
54. Lanckriet, T., **J.A. Puleo**, G. Masselink, I.L. Turner, P. Russell, D. Conley, C. Blenkinsopp and N. Waite. 2012. Sheet flow sediment concentrations on a natural beach. Amtrak Club Conference, Philadelphia, PA.
53. **Puleo, J.A.** and T. Lanckriet. 2011. Swash zone velocity profiles and bed stress on a natural beach, Nortek Technical Symposium, Newport, Rhode Island.
52. \*McKenna, T.E., T.M. Sliwinski and **J.A. Puleo**. 2011. Transforming ground-based oblique thermal images to enable quantitative analysis of coupled heat and fluid flow in the critical zone, H41D-1067, 2011 Fall Meeting, AGU, San Francisco, Calif.
51. Torres-Freyermuth, A., **J.A. Puleo**, D. Pokrajac, and P. Salles. 2011. RANS modeling of swash zone hydrodynamics, EGU2011-8891, European Geophysical Union Meeting, EGU, Vienna, Austria.
50. \*Sliwinski, T., T.E. McKenna, **J.A. Puleo** and C.L. Meehan. 2010. Ground-based thermal imaging of coastal and riverine sediments, Abstract OS51B-1278, 2010 Fall Meeting, AGU, San Francisco, Calif., 13-17 Dec.
49. \*Kidwell, A., **J.A. Puleo** and A. Torres-Freyermuth. 2010. Pressure gradients in the inner surf and outer swash zone, Abstract OS51B-1316, 2010 Fall Meeting, AGU, San Francisco, Calif., 13-17 Dec.
48. \***Puleo, J.A.**, T.M. Lanckriet and P. Wang. 2010. Swash-zone velocity profiles and bed stress on a natural beach, Abstract OS51B-1318, 2010 Fall Meeting, AGU, San Francisco, Calif., 13-17 Dec.
47. \*Sutkowski, C.M., **J.A. Puleo** and T.E. McKenna. 2010. Quantifying riverine surface velocities using thermal infrared PIV, Abstract OS51B-1277, 2010 Fall Meeting, AGU, San Francisco, Calif., 13-17 Dec.

46. \*Lanckriet, T.M. and **J.A. Puleo**. 2010. Spatially dense kinematic maps in the swash zone using a continuity-based imaging technique, Abstract OS51B-1317, 2010 Fall Meeting, AGU, San Francisco, Calif., 13-17 Dec.
45. \*Keshtpoor, M., **J.A. Puleo** and N. Kraus. 2010. Numerical simulation of flow and sediment transport patterns in Indian River Inlet, DE, USA, Abstract OS51B-1280, 2010 Fall Meeting, AGU, San Francisco, Calif., 13-17 Dec.
44. \* Hicks, B., N. Kobayashi and **J.A. Puleo**. 2010. Cross-shore transport of coarse grained sediment. *Eos. Trans. AGU*, 84(52), Ocean Sci. Meet. Suppl., Abstract PO25C-24.
43. \*Lindemer, C.A. and **J.A. Puleo**. 2010. Quantifying short-term morphologic evolution and alongshore sediment transport rates using remote sensing and GPS-equipped vehicles. *Eos. Trans. AGU*, 84(52), Ocean Sci. Meet. Suppl., Abstract PO25C-11.
42. \*Kidwell, A., **J.A. Puleo** and A. Torres-Freyermuth. 2010. Pressure gradients in the swash zone. *Eos. Trans. AGU*, 84(52), Ocean Sci. Meet. Suppl., Abstract PO15E-01.
41. \*Lanckriet, T., **J.A. Puleo** and J.W. Faries. 2010. Nearbed sediment concentration profile measurements in the swash zone. *Eos. Trans. AGU*, 84(52), Ocean Sci. Meet. Suppl., Abstract PO14B-06.
40. \*Sliwinski, T., M. Stewart, T.E. McKenna, **J.A. Puleo**, and C. Meehan. 2010. Experimental examination of the factors affecting ground-based thermal imaging of intertidal sediments. *Eos. Trans. AGU*, 84(52), Ocean Sci. Meet. Suppl., Abstract IT25E-11.
40. \*Lindemer, C.A., N.G. Plant, J.A. Puleo and D. Thompson. 2009. Numerically simulating morphological change at the Chandeleur Islands during hurricane Katrina using XBeach. ASBPA National Conference, St. Petersburg, FL.
39. \*Keshtpoor, M. and **J.A. Puleo**. 2010. The Effect of a sand bypassing system on morphologic variability at Indian River Inlet, DE. *Eos. Trans. AGU*, 84(52), Ocean Sci. Meet. Suppl., Abstract G025A-13.
38. \*Hayden, J.T., **J.A. Puleo** and J.H. MacMahan. 2008. Advanced scour monitoring at Indian River Inlet, Delaware. *EOS Trans. AGU*, 89(53), Fall Meet. Suppl., Abstract OS23A-1243.
37. \*Faries, J. and **J.A. Puleo**. 2008. Nearbed sediment transport in swash zone laboratory beaches. *EOS Trans. AGU*, 89(53), Fall Meet. Suppl., Abstract OS12B-04.
36. \*Lindemer, C.A., N.G. Plant, **J.A. Puleo** and D. Thompson. 2008. Modeling wave overtopping on the Chandeleur Islands during hurricane Katrina using XBeach. *EOS Trans. AGU*, 89(53), Fall Meet. Suppl., Abstract OS34A-05.
35. **Puleo, J.A.**, M.A. O'Neal, T.E. McKenna, T. White, 2008. A remote-control airship for coastal and environmental research. *EOS Trans. AGU*, 89(53), Fall Meet. Suppl., Abstract OS12D-1220.

34. \*Faries, J. Hicks, B. and **J.A. Puleo**. 2008. Preliminary study of swash zone bedload concentration using a resistivity profiler. *Eos. Trans. AGU*, 84(52), Ocean Sci. Meet. Suppl., Abstract 2096.
33. \*Hayden, J.T., **J.A. Puleo** and J.H. MacMahan. 2008. Tidal current variability over deep scour holes at Indian River Inlet, Delaware. *Eos. Trans. AGU*, 84(52), Ocean Sci. Meet. Suppl., Abstract 2086.
32. \*Pietro, L. M.A. O’Neal and **J.A. Puleo**. 2008. Developing terrestrial-LIDAR-based digital elevation models for monitoring beach nourishment performance. *Eos. Trans. AGU*, 84(52), Ocean Sci. Meet. Suppl., Abstract 2504.
31. \*Pearre, N.S., **J.A. Puleo**. 2008. Automated large-scale shoreline variability analysis from video. *Eos. Trans. AGU*, 84(52), Ocean Sci. Meet. Suppl., Abstract 2060.
30. \*Lindemer, C.A. and **J. A. Puleo**. 2008. Coastal imaging at Cape May, NJ. University of Delaware Research Foundation Symposium, University of Delaware.
29. \*Pietro, L. M.A. O’Neal, **J.A. Puleo** and D. R. Legates. 2007. Large-scale, high-fidelity surface models of Rehoboth Beach, DE. Association of American Geographers Meeting, San Francisco, Ca.
28. \*Pearre, N.S. and **J.A. Puleo**. 2006. Automated large-scale shoreline variability analysis from video. *Eos Trans. AGU*, 87 (52), Fall Meet. Suppl., Abstract OS41C-0625.
27. **Puleo, J.A.** and T. Butt. 2006. Outcomes from the 1<sup>st</sup> international workshop on swash zone processes, *Eos. Trans. AGU*, 84 (52), Ocean Sci. Meet. Suppl.
26. **Puleo, J.A.** and T. Butt. 2006. Status of the integrated study of swash zone processes, Presented to the field experiment team in Honolulu, HI.
25. **Puleo, J.A.** 2005. Video imaging for nearshore processes analysis: NOT another surf cam, Presented to the Division of Soil and Water Conservation, Shoreline and Waterway Management Section, Department of Natural Resources and Environmental Control, State of Delaware.
24. **Puleo, J.A.** and R. Johnson. 2004. The effect of bubbles on optical backscatter sensors, *Eos Trans. AGU*, 85 (47), Fall Meet. Suppl., Abstract OS21B-1219.
23. Calantoni, J.C. and **J.A. Puleo**. 2004. Using a Navier-Stokes solver to drive a discrete particle model for sediment transport in the swash zone, *Eos Trans. AGU*, 85 (47), Fall Meet. Suppl., Abstract OS24A-03.
22. Calantoni, J.C. and **J.A. Puleo**. 2004. Discrete particle model of sediment transport in the swash zone, The 1st International Workshop on Swash Zone Processes.
21. Masselink, G. and **J.A. Puleo**. 2004. Sediment transport and morphological change in the swash zone, The 1st International Workshop on Swash Zone Processes.
20. Russell, P. T. Butt, J. Miles, **J.A. Puleo** and D. A. Huntley. 2004. The role of swash in nearshore dynamics, The 1st International Workshop on Swash Zone Processes.

19. **Puleo, J.A.** and T. Butt. 2004. The 1st international workshop on swash zone processes: Why we are here, The 1st International Workshop on Swash Zone Processes.
18. Plant, N.G. K.T. Holland, **J.A. Puleo** and E.L. Gallagher. 2004. Lessons learned from an inversion of bar migration observations, *Eos. Trans. AGU*, 84 (52), Ocean Sci. Meet. Suppl., Abstract OS32F-02.
17. Calantoni, J., **J.A. Puleo** and K.T. Holland. 2004. The effect of pressure gradients in bed load transport under waves, *Eos. Trans. AGU*, 84 (52), Ocean Sci. Meet. Suppl., Abstract OS31G-03.
16. **Puleo, J.A.**, R.V. Johnson and K.T. Holland. 2004. Laboratory investigation of the effect of bubbles on optical backscatter sensors, *Eos. Trans. AGU*, 84 (52), Ocean Sci. Meet. Suppl., Abstract OS52B-10.
15. \***Puleo, J.A.**, D.N. Slinn, K.T. Holland and B.W. Webb. 2004. A volume of fluid model for surf and swash zones, *Eos. Trans. AGU*, 83 (47), Fall Meet. Suppl., Abstract OS71A-0250.
14. **Puleo, J.A.** and K.T. Holland. 2001. VISSER: Database applicable code for argus users, Presented at the Argus Workshop in Corvallis, Oregon.
13. **Puleo, J.A.** 2001. VISSER: Video imaging system for surf zone environmental reconnaissance, Presented at the Argus Workshop in Corvallis, Oregon.
12. Slinn, D.N., K.T. Holland, **J.A. Puleo**, and D. Hanes. 2001. Modeling small-scale nearshore processes. *Trans. Amer. Geophys. Union*, 82(46).
11. **Puleo, J.A.** and K.T. Holland. 2001. VISSER: Video imaging system for surf zone environmental reconnaissance in support of Kernel Blitz '01, Presented during media day at Camp Pendleton.
10. **Puleo, J.A.**, K.T. Holland, G. Farquharson, S.J. Frasier and B. Raubenheimer. 2001. A comparison of remote sensing and in situ measurements of nearshore flows, *Trans. Amer. Geophys. Union*, 82(46).
9. **Puleo, J.A.**, K.T. Holland and T.N. Kooney. 2000. A video-based particle image velocimetry technique for nearshore flows, *Trans. Amer. Geophys. Union*, 81(46).
8. **Puleo, J.A.** and K.T. Holland. 1999. Use of video imagery to monitor and predict littoral morphodynamics, presented to representatives from National Geographic visiting the Naval Research Laboratory.
7. **Puleo, J.A.** and K.T. Holland. 1999. Creating rectified color mosaics from Argus imagery, Presented at the Argus Workshop in Corvallis, Oregon.
6. **Puleo, J.A.** and K.T. Holland. 1999. Estimating the kinematic effects of friction and percolation in the swash zone, *Trans. Amer. Geophys. Union*, 80(46).
5. Holland K.T. and **J.A. Puleo**. 1999. Foreshore profile adjustment in response to swash processes, *Trans. Amer. Geophys. Union*, 80(46).
4. de Angelis, M.A., B. Davis, G. Downey, M. Fowler, S. Grimes, M. Logan, **J. Puleo** and M. Schneider. 1999. Distribution and potential ecological significance of epibenthic woody debris on a northern California continental shelf, American Society for Limnology and Oceanography 1999 Aquatic Sciences Meeting.

3. **Puleo, J.A.**, J.S. Allen, R.A. Holman and R.A. Beach. 1998. Importance of bore-generated turbulence to swash zone sediment transport, *Trans. Amer. Geophys. Union*, 79(45).
2. **Puleo, J.A.**, R.A. Beach and R.A. Holman. 1997. Swash zone sediment transport on a steep beach, *Trans. Amer. Geophys. Union*, 78(46).
1. **Puleo, J.A.**, R.A. Beach and R.A. Holman. 1996. Swash zone sediment suspension on a steep beach, *Trans. Amer. Geophys. Union*, 77(46).

**RESEARCH AND TECHNICAL REPORTS: (\* indicates with student)**

16. \*Kidwell, A.N. and **J.A. Puleo**. 2011. Pressure Gradients in the Inner Surf and Outer Swash Zone: A Laboratory and Numerical Investigation. Center for Applied Coastal Research, University of Delaware, CACR-11-07.
15. \*Sliwinski, T., **J.A. Puleo** and T. McKenna. 2011. Experimental Examination of the Effect of Observation Geometry on Land Surface Temperature Estimates from Remotely Sensed Ground Based Thermal Imagery. Center for Applied Coastal Research, University of Delaware, CACR-11-06.
14. \*Lindemer, C. and **J.A. Puleo**. 2010. Explorations of Morphological Change at Cape Henlopen, DE Using Remote Sensing, Rapid-Response GPS-Equipped Vehicles and Numerical Modelling. Center for Applied Coastal Research, University of Delaware, CACR-10-02.
13. \*Hicks, B., J. Figlus, **J.A. Puleo** and A. Farhadzadeh. 2010. Cross-Shore Transport on Gravel Beaches. Center for Applied Coastal Research, University of Delaware, CACR-10-01.
12. \*Hayden, J.T. and **J.A. Puleo**. 2009. Indian River Inlet Bridge and Bathymetry Scour Monitoring System. Center for Applied Coastal Research, University of Delaware, CACR-09-02.
11. \*Faries, J.W.C and **J.A. Puleo**. 2009. A New Conductivity Sediment Concentration Profiler (CCP) for the Measurement of Nearbed Sediment Concentrations: Application in the Swash Zone on a Laboratory Beach. Center for Applied Coastal Research, University of Delaware, CACR-09-03.
10. \*Pearre, N.S. and **J.A. Puleo**. 2007. Sandcam at Rehoboth: Quantifying shoreline change using video. Center for Applied Coastal Research, University of Delaware, CACR-07-02.
9. \*O'Neal, M.A., **J.A. Puleo** and L.S. Pietro. 2007. Pilot Study on the Use of Terrestrial LIDAR for Rapid, High-Resolution Beach Monitoring. Delaware Department of Environmental Protection, Technical Report, 86 pp.
8. \*Schmied, L., N. Kobayashi, A. Payo, and **J.A. Puleo**. 2006. Cross Shore Sediment Transport and Beach Profile Change. Center for Applied Coastal Research, University of Delaware, CACR-06-03.
7. \*He, L. and **J.A. Puleo**. 2006. Video-Based Particle Image Velocimetry of Laboratory Rip Currents. Center for Applied Coastal Research, University of Delaware, CACR-06-05.

6. \*Puleo, J.A. and N.S. Pearre. 2006. Surf and Nearshore Dynamics Camera (SANDCam). Center for Applied Coastal Research, University of Delaware, CACR-06-06.
5. Butt, T. Coco, G. Puleo, J.A., Raubenheimer, B. Turner, I. and van Thiel de Vries, J. 2005. Planning for an Integrated Field Study of Swash Zone Processes (SWASH3D). Workshop report submitted to the Office of Naval Research Global.
4. Puleo, J.A. 2005. The effect of Bubbles on Optical Backscatter Sensors, ONR Annual Report, Coastal Geosciences Division.
3. Puleo, J.A. and O. Mouraenko. 2003. Wave Bottom Boundary Layer Models on Smooth and Rough Beds, NRL Report: NRL/FR/7440—03-10,053.
2. Puleo, J.A., K.T. Holland and T.N. Kooney. 2001. A Video-Based Particle Image Velocimetry (PIV) Technique for Nearshore Flows, NRL Review pp:162-164.
1. Holland, K.T. and J. A. Puleo. 1999. High Resolution Observations of Foreshore Morphodynamics, NRL Review, 148-149.

#### RESEARCH CONTRACTS AND GRANTS:

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Approximate Total Funds Awarded (Puleo portion): \$24,500,000 (\$13,500,000)

#### Awarded as Lead PI:

Funding Period	PIs	Award Title	Sponsor*	Amount (\$)
2022-2025	Puleo, Bruck, Bardenhagen, Head, Hale	Developing Engineering practices using Ecosystem Design Solutions for Future Army (Military DEEDS Project)	USACE	9,431,003
2022-2023	Puleo	Services Agreement – Delaware National Guard	DE National Guard	25,000
2022-2026	Puleo, Shi, van Dongeren, Smallegan, Figlus, Dietrich, Storlazzi	Comparative assessment of total water levels for coastal military facility readiness and resilience using numerical models	ESTCP	2,179,985
2020-2024	Puleo	Mobility and Burial of Variable Density Munitions in the Inner Surf and Swash Zones during Controlled Extreme Forcing	SERDP	1,795,658
2020-2022	Puleo, Bruck, Shi	Addressing Obstacles that Preclude Installation of Living Shorelines in Areas Influenced by Ship Wake	DE Sea grant	362,325

2019-2021	Puleo	Assessing morphodynamics north of Indian River Inlet from nearshore dispersal of Massey's ditch dredged sand	DNREC	240,007
2018-2020	Puleo	Intra-storm Erosion Processes on an Engineered Dune System	USCRP/USACE	107,378
2018-2021	Puleo, Hsu, Cox, Wengrove, Feagin	Collaborative Research: Physics of Dune Erosion during Extreme Surge and Wave Events	NSF	1,134,514
2018-2021	Puleo	Making Waves in the Classroom – Engaging Students in STEM through Hands-on Coastal Oceanography and Engineering	ONR	437,983
2018-2020	Puleo	Hydrodynamics and Beach Morphology <u>During</u> Extreme Events	DE Sea Grant	158,541
2016-2018	Puleo	Surf Zone Injuries and Beach Safety Along The Delaware Coast	DE Sea Grant	140,138
2016-2017	Puleo, Doelp	Surf Zone Injury and Beach Safety Awareness Campaign: Enhancing the Delaware Surf Zone Injury Study	DE Sea Grant	14,976
2014-2015	Puleo, Torres-Freyermuth, Mulligan, Palmsten	Young Coastal Scientists and Engineers Conference – North America	COPRI, DE Sea Grant, UD (7 more)	26,350
2015-2016	Puleo	Data Collection for the Delaware Surf Zone Injury Study	DE Sea Grant	14,000
2015-2019	Puleo	Quantification of Hydrodynamic Forcing and Burial, Exposure and Mobility of Munitions on the Beach Face	SERDP	1,080,359
2014-2015	Puleo	Quantifying Environmental Conditions Associated with the Delaware Surf Zone Injury Study	DE Sea Grant	50,925
2014-2017	Puleo	Drifter Study of Circulation near Indian River Inlet, DE	DNREC	256,648
2014-2016	Puleo, Kriebel	Beach Nourishment Design Practice in Delaware: Modifications to Beach and Surf Zone Characteristics	DNREC	237,281
2014	Puleo, Torres-Freyermuth	Visiting Scientist Proposal: Alec Torres-Freyermuth, Universidad Nacional Autonoma de Mexico	ONR Global	5,022
2014-2016	Puleo, McKenna	Quantifying Inundation and Hydrodynamics in an Anthropogenically-Altered Tidal Wetland	DE Sea Grant	172,594



2013-2014	Puleo, Torres-Freyermuth, Pedrozo-Acuna, Mulligan, Ozkan-Haller	Young Coastal Scientists and Engineers Conference – North America	COPRI, DE Sea Grant, UD (8 more)	20,400
2013-2016	Puleo, Figlus	Collaborative Research: Ridge-Runnel, Post-Storm Beach Recovery	NSF	345,223
2013-2016	Puleo	In Situ and Modeling Efforts of Hydrodynamics and Morphology near Indian River Inlet, DE	DNREC	284,185
2012-2014	Puleo, McKenna	Quantifying Spatio-Temporal Variability in Hydrodynamics and Inundation of a Tidal Saltmarsh (Brockonbridge Marsh, Kent County, Delaware)	DE Sea Grant	186,290
2010-2012	Puleo	Near Real-Time Monitoring of Indian River Inlet Scour Hole Edge Evolution Seaward of the Bridge Piers: Phase II	DeIDOT/FHWA	192,511
2010-2012	Puleo, Wang	Investigating Gravel Distributions from Rehoboth Beach to Cape Henlopen	DNREC	78,917
2010-2011	Puleo, McKenna, Meehan	Characterizing Riverine Environments Through Remote Sensing	ONR	25,612
2009-2015	Puleo	Swash Zone Sediment Transport	NSF CAREER	444,229
2009-2010	Puleo	SANDCam at Rehoboth Beach	DNREC	35,856
2009-2012	Puleo	Quantifying Short-Term Morphologic Evolution and Alongshore Sediment Transport Rates at Cape Henlopen, DE Using Remote Sensing and Rapid-Response GPS-Equipped Vehicles	DE Sea Grant	345,540
2008	Puleo	Bathymetry Collection in Support of SANDCam	UDRF - REU	3,500
2007-2010	Puleo, McConnell, MacMahan, Chajes	Near Real-Time Monitoring of the Indian River Inlet Scour Hole Edge Evolution Seaward of the Bridge Piers: Phase I	DeIDOT/FHWA	842,398
2007-2009	Puleo	SANDCam at Rehoboth Beach	DNREC	30,019
2007-2008	Puleo, Shenton	Feasibility in Using a Calibrated Video System for Traffic Speed and Vehicle Identification	DeIDOT	20,016
2007-2008	Puleo	Quantifying Storm and Seasonal Morphologic Variability of Delaware Bay Capes	UDRF	24,981

2007	Puleo, McKenna, Meehan	Characterizing Morphology and Geotechnical Properties of a Macrotidal Muddy Coast using Multi-Spectral Ground-Based Remote Sensing (Gyeonggi Bay Tidal Flat, South Korea)– PHASE I – Planning Meetings	ONR	23,733
2005-2006	Puleo	Hands-On Model of Beach Processes	DE Sea Grant	8,989
2005-2007	Puleo	Nearshore Video Imaging Analysis System At Rehoboth Beach	DNREC	135,508
2005	Puleo	ONRG Science and Technology Engagement Program (STEP): Support Request for International Collaboration on Plan Development for an Integrated Swash Zone Field Study	ONR	10,647
2004-2005	Puleo	The Effect of Bubbles on Optical Backscatter Sensors	ONR	12,269
2004	Puleo	The Effect of Bubbles on Optical Backscatter Sensors	ONR	37,303

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**Awarded as co-PI:**

<b>Funding Period</b>	<b>PIs</b>	<b>Award Title</b>	<b>Sponsor</b>	<b>Amount (\$)</b>
2022-2025	Pujara, Puleo, Chardon-Maldonado	Collaborative Research: Swash Zone Dynamics Driven by Obliquely Incident Waves	NSF	654,897
2022-2025	Van Buren, Matthaeus, Prasad, Puleo, Veron	Turbulence Decay of a Bubble/ Sediment-Laden Liquid in ISS Microgravity	NASA EPSCoR	99,520
2020-2023	Mieras, Puleo	MRI Consortium: Development of CCPflex – A multi-function, modular platform for next-generation Conductivity Concentration Profilers	NSF	924,974
2020-2023	Webb, Smallegan, Puleo, Elko	Barrier Island Hydrodynamics and Morphodynamics DURING an Extreme Event	USACE	500,000
2019	Hsu, Puleo, Kirby	A symposium on sediment dynamics in geophysical flows using two-phase flow methodology	NSF	21,649
2014-2015	Torres-Freyermuth, Puleo	Nearshore Coastal Dynamics on a Sea-Breeze Dominated Micro-Tidal Beach	UNAM	30,000

2014-2017	Cox, Puleo, Hsu	Collaborative Research: Large-scale Laboratory Investigation and Numerical Modeling of Sheet Flow Sediment Transport Dynamics across a Surf Zone Sand Bar	NSF	452,129
2012-2014	Masselink, Turner, Conley, Ruessink, Matias, Castelle, Puleo, Blenkinsopp	Barrier Dynamics Experiment (BARDEX II) HydraLab IV	Seventh Framework Programme, European Union	395,550
2010-2011	McKenna, Puleo, Meehan	Temporal Imaging of the Intertidal Critical Zone	NASA EPSCoR	49,459
2009-2010	McKenna, Puleo, Meehan	Temporal Imaging of the Intertidal Critical Zone	NASA EPSCoR	44,186
2008-2009	Imhoff, O'Neal, Puleo, Meehan, Dentel	Quantifying Reductions in Greenhouse Gas Emissions with Airship-Based Measurements	UDRF	45,000
2008-2010	Nordstrom, Jackson, Puleo	Evaluation of Wind and Wave Processes Critical in Sustaining Beach Backshore Environments	NJ Sea Grant	289,863
2008-2011	Johnston, Smith, Puleo	Selective Detection and Characterization of Nanoparticles from Motor Vehicles	HEI	330,327
2007-2009	McKenna, Puleo, O'Neal	Temporal Remote Sensing of Salt Marsh Inundation at Webbs Marsh in the Murderkill River Estuary, Delaware	Kent County, DE	17,379
2007-2008	O'Neal, Puleo	Low Altitude Environmental Analysis Dirigible (LEAD)	Private donor	150,000
2006-2007	Righman, Puleo, MacMahan, Chajes	Scour Monitoring of the Indian River Inlet Bridge: Pilot Study	DelDOT	50,112
2005-2006	O'Neal, Puleo, Trembanis	Pilot Study on the Use of Terrestrial LIDAR for Rapid, High-Resolution Beach Monitoring	DNREC	77,764

\*COPRI (Coasts, Oceans, Rivers and Ports Institute), DelDOT (Delaware Department of Transportation), DNREC (Delaware Department of natural Resources and Environmental Control), FHWA (Federal Highway Administration), HEI (Health Effects Institute), NASA EPSCoR (National Aeronautics and Space Administration Experimental Program to Stimulate Competitive Research), NSF (National Science Foundation), ONR (Office of Naval Research), SERDP (Strategic Environmental Research and Development Program), UD (University of Delaware), UDRF (University of Delaware Research Foundation), UNAM (Universidad Nacional Autonoma de Mexico).

## HONORS AND AWARDS:

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2021	University of Delaware, College of Engineering Award for Staff/Faculty Partnership
2019	<b>University of Delaware Excellence in Teaching Award</b>
2018	The Robert G. Dean Coastal Academic Award
2018	SERDP project of the year award
2018	DAAD short-term research award from German Academic Exchange Service
2018	Nominated for the University of Delaware Study Abroad Faculty Director of the Year Award for 2017-2018
2017	Nominated for the University of Delaware Excellence in Undergraduate Academic Advising and Mentoring Award
2016	Outstanding Reviewer, Coastal Engineering
2012	Best paper award at the 2012 ICCE conference, Puleo et al.
2012	Best paper award at the 2012 ICCE conference, Lanckriet et al.
2012-2015	Selected as a US/UK Fulbright proposal panel reviewer
2012	Chi Epsilon Cumberland District Faculty Advisor Award
2012	British Fulbright Scholars Association Occasional Lecture Award
2011-2012	Fulbright Scholar, United Kingdom
2011	Finalist (top 3) for College of Engineering Excellence in Teaching Award
2009	National Science Foundation CAREER Award
2007	<b>University of Delaware Excellence in Teaching Award</b>
2007	College of Engineering Slocomb Excellence in Teaching Award
2007	ASCE ExCEED New Faculty Excellence in Teaching Award
2005-2020(excluding 2007, 2011, 2019)	Nominated for the University of Delaware Excellence in Teaching Award
2005	ASCE Excellence in Civil Engineering Education Teaching Fellowship

2004	Department of the Navy Alan Berman Research Publication Award
2003	Department of the Navy Alan Berman Research Publication Award
1999	Department of the Navy On-The-Spot Award

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**RESEARCH ADVISING:**

POST-DOCTORAL RESEARCHERS

<b>Time Frame</b>	<b>Name</b>	<b>Place of Employment</b>
2021 -	Chris Lashley	
2021 -	Manoj Gangadharan	
2015 - 2017	Brittany Bruder	USACE

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Ph.D. STUDENTS (\* indicates co-advisor; † indicates committee member):

<b>Time Frame</b>	<b>Name and Dissertation Title</b>	<b>Place of Employment</b>
2022 -	†Sadegh Nouri	Current student at UD
2022 -	†Jiaye Zhang	Current student at UD
2022 -	Gaby Salgado-Dominguez	Current student at UD
2022 -	Sahar Asrari	Current student at UD
2021-	*Martha Ryan	Current student at UD
2020 -	Temitope Idowu	Current student at UD
2018 -	†Kaitlyn McPherran	Current student at UD
2018 -	Maro Pontiki	Current student at UD
2018 -	†Jirat Laksanalamai	Current student at UD

2017 -	†Benjamin Tsai	Current student at UD
2016 - 2021	†Yashar Rafati	Environmental Science Associates
2015 - 2020	Demetra Cristaudo; “Experimental Study of Burial and Mobility of Unexploded Ordnance in the Swash Zone”	JBA
2016 – 2021	†Stephanie Dohner	
2014 - 2019	†Yeulwoo Kim	PKNU
2013 - 2016	†Zhen Cheng	MIT
2012 - 2016	†Babak Tehranirad	USGS
2014 - 2017	Ryan Mieras; “Sheet Flow and Suspended Sediment Transport Processes on a Surf Zone Sandbar”	University of North Carolina at Wilmington
2012 - 2017	*Jose Carlos Pintado-Patino; “Procesos Dinámicos en la Zona de Swash : un estudio integral”	UNAM
2013 - 2016	Patricia Chardon-Maldonado; “Inner Surf and Swash Zone Hydrodynamics and Sediment Transport Processes during Accretive Conditions and Local Wind Forcing”	CARICOOS, University Puerto Rico
2012 - 2016	Aline Pieterse; “Near-bed Hydrodynamics and Sediment Transport in Tidal Channels and on Tidal Flats”	IMDC
2012 - 2016	†Jun Cheng	Kean University
2008 - 2013	*Tiffany Roberts; “Natural and Anthropogenic Influences on the Morphodynamics of Sandy and Mixed Sand and Gravel Beaches”	Florida Atlantic U.
2009 - 2014	Thijs Lanckriet; “Near-bed Sediment Transport and Hydrodynamics in the Swash Zone”	IMDC

2009 - 2014	Mohammad Keshtpoor; “Modeling Hydrodynamics and Sediment Transport in an Inlet-Beach System”	AIR Worldwide
2007 - 2008	Nat Pearre (switched to Marine Policy)	Natural Resources Canada
2005 - 2009	†Ali Farhadzadeh	SUNY Stonybrook
2006 - 2010	†Jens Figlus	TAMU Galveston
2003 - 2007	†Wen Long	NOAA
2001 - 2006	†Jen Irish	VT

MASTERS STUDENTS (\* indicates co-advisor; † indicates committee member):

<b>Time Frame</b>	<b>Name and Dissertation Title</b>	<b>Place of Employment</b>
2021 -	Emily Chapman	Current student at UD
2020 - 2022	Evan Mazur, “Urban Coastal Flood Pathways During Extreme Events”	Bayland
2020 - 2022	Olivia Amante; “Modeling Intra-Event Process on a Barrier Beach During an Extreme Event”	RPS
2020 - 2022	Oscar Williams; “Evaluating Living Shoreline Performance and Vessel Wake Using the Ship Wake Module of FUNWAVE-TVD”	Seattle DOT
2020 - 2022	Courtney Olney; “Horizontal Pressure Gradient and Bed Shear Stress Under Double Dm-break Driven Swash and Validation of a Reynolds-Averaged Navier-Stokes Equations Based Model”	Cummins Cederburg
2020 - 2022	Cassie Turner; “Performance of a Living Shoreline Under Ship Wake Forcing on an Estuarine Shoreline”	USACE
2019 - 2021	Erika Beddings; “Assessing Morphodynamics North of Indian River Inlet from Offshore Dispersal of Massey Ditch Dredged Sand”	

2019 - 2021	Mike Lerner; “Relative Significance of Shear Stress and Horizontal Pressure Gradients on Sediment Mobility in the Inner Surf and Swash Zone”	Applied Coastal Research
2019 - 2021	†Emma Ruggiero; “Assessing Living Shoreline Feasibility at a Remote Site Influenced by Ship Wake”	Current PhD student at UD
2018 - 2019	Rory O’Boyle; “Sea Mine Burial Prediction for Naval Mine Countermeasures Mission Planning”	United States Navy
2017 - 2019	Ben Gross; “Mobility of Unexploded Ordnance using Spherical Surrogates in the Swash Zone”	Olsen Associates
2017 - 2019	Stan Borrell; “In situ Hydrodynamic and Morphodynamic Measurements During Extreme Storm Events”	Moffatt and Nichol
2016 - 2018	Matt Doelp; “Surf Zone Injury Study along Delaware Atlantic-Fronting Beaches: Quantification, Prediction and Directed Awareness”	Applied Coastal Research
2016 - 2017	Douglas Krafft; “Drifter Study of Circulation Near Indian River Inlet, DE”	USACE
2015 - 2016	Shamim Murshid; “Assessment of Beach and Surf Zone Modifications Due to Intermittent Beach Nourishment on the Delaware Atlantic Coast”	Current student at LSU
2015 - 2016	Dimitris Belivanis; ”Beach Nourishment Impacts on the Beach Profile”	Current student at Stanford
2013 - 2015	†Bridget O’Neill	
2013 - 2015	Nick DiCosmo; “Hydrodynamics Offshore of the Downdrift Beach and Southern Ebb Shoal of Indian River Inlet”	Remington and Vernick
2009 - 2011	Autumn Kidwell; “Pressure Gradients in the Inner Surf and Outer Swash Zone: A Laboratory and Numerical Investigation”	Applied Research Laboratories



2009 - 2011	Tim Sliwinski; “Experimental Examination of the Effect of Observation Geometry on Land Surface Temperature Estimates from Remotely Sensed Ground Based Thermal Imagery”	Bechtel
2008 - 2010	*Betsy Hicks; “Cross-Shore Transport on Gravel Beaches”	URS
2008 - 2010	Christina Lindemer; “Explorations of Morphological Change at Cape Henlopen, DE using Remote Sensing, Rapid-Response GPS-equipped vehicles and Numerical Modeling”	FEMA
2007 - 2009	Joe Faries; “A New Conductivity Sediment Concentration Profiler (CCP) for the Measurement of Nearbed Sediment Concentrations: Application in the Swash Zone on a Laboratory Beach”	DNREC
2006 - 2009	Jesse Hayden; “Indian River Inlet Bridge and Bathymetry Scour Monitoring System”	DNREC
2005 - 2007	Nat Pearre; “SANDCam at Rehoboth: Quantifying Shoreline Change Using Video”	Natural Resources Canada
2004 - 2006	Liang He; “Video-Based Particle Image Velocimetry of Laboratory Rip Currents”	Jacobs

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SENIOR THESIS

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<b>Time Frame</b>	<b>Name and Dissertation Title</b>	<b>Place of Employment</b>
2022	Maya Eley; “Vertical pressure gradients on the beach face under double dam-break flows”	PhD student at Stanford
2021	Emily Chapman; “Horizontal pressure gradient and sediment response under double dam-break flows in the swash zone”	MCE student at UD

2021	Taira Baldauf; “Quantifying the effect of ship wake on commonly used living shoreline treatments”	
2021	Kyle Rumaker; “Modeling dredge disposal near Indian River Inlet”	MCE at University South Alabama
2019	Sydney Cargill; “Beach Profile Evolution during Extreme Events”	
2018	Rachel Schaefer; “Investigating Impact of Pea Patch Island Vegetation on Waves”	PhD student at MIT
2018	Michael Lerner; “Boat Wake Erosion at Pea Patch Island”	Applied Coastal
2017	Emily Robison; “Hydrodynamics and Beach Erosion during Storms on Delaware Beaches”	Whitman, Requardt and Associates
2015	Katie Hutschenreuter; “Surf Zone Injuries and Forcing Conditions along the Delaware Coast”	MRD Associates
2015	Douglas Krafft; “PIV Velocities in the Swash Zone from an In Situ Bed Camera”	USACE
2014	Adam DeJean; “Image-Derived Velocities and Turbulence at a Tidal Channel Confluence”	Ryan Homes
2014	Veronica Citerone; “Grain Size and Geomorphic Co-Variability across the Inner Surf and Swash Zones”	Roux Associates
2011	Christine Sutkowski; ”Quantifying Riverine Surface Currents using Thermal Imagery and PIV”	RK&K
2010	Rebecca Aiken; “Spatio-Temporal Hydrodynamic Variability in a Tidal Channel”	URS
2010	Melissa Stewart; ”Effect of Angle on Thermal Imager Response to Surface Temperature”	U. Colorado

2008 Christina Lindemer; “Coastal Imaging at FEMA  
Cape May, New Jersey”

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UNDERGRADUATE RESEARCH

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<b>Time Frame</b>	<b>Name</b>
2022 -	David Bogart
2022 -	Megan Hamilton
2022 -	Lillian Gilardi
2022 -	Mackenzie Hammel
2021 - 2022	Delaney Doran
2021	Heather Fettke von Koeckritz
2021	Benjamin Horney
2019 - 2022	Maya Eley
2019 - 2020	Taira Baldauf
2019 - 2020	Brendan Green
2019 - 2020	John Mercer
2019 - 2021	Emily Chapman
2019 - 2020	Rebecca Schurr
2019 - 2020	Aidan Kedzierski
2018 - 2019	Meagan Koutsandreas
2018 - 2020	Sydney Cargill
2018 - 2021	Kyle Rumaker
2018 - 2019	Eric Noe
2018 - 2019	Janelle Skaden
2018 - 2019	Shannon Brown
2018 - 2019	Rachel Schaefer
2018 - 2019	Mike Larner

2017 - 2018	Helena Garcia
2017 - 2018	Sean Duncan
2016 - 2017	Zach Irons
2016 - 2017	Stephen Napoli
2016 - 2017	David Polakoff
2016 - 2017	Michaela Maguire
2016	Darrell Kennedy
2016	Samuel Harry
2015 - 2017	Shannon Emrich
2015 - 2018	Emily Robison
2015	Jillian McKenna
2015	Douglas Krafft
2015	Zach Nerwinski
2015	Brian Lowe
2015	Katie Hutschenreuter
2015	Ryan Dayton
2014	Hannah Billian
2013 - 2014	Veronica Citerone
2013 - 2014	Adam DeJean
2013	Kaitlyn Gisonda
2013	Jack Cardinal
2012 - 2013	Rebecca Aiken
2011	Christine Sutkowski
2011	Lauren Munoz
2011	Sam Vaughan
2010	Doug Innocent
2010	Bob McGurk

2010	Raymond Strawley
2009	Sean Davis
2009 - 2010	Melissa Stewart
2009	Justin Seeney
2009	Tim Burke
2008	Jake Voorhees
2007 - 2008	Betsy Hicks
2007 - 2008	Christina Lindemer

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### **TEACHING EXPERIENCE:**

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*Coastal Seminar* (CIEG865) Spring 2005-2009

*Fluid Mechanics* (CIEG305), Fall 2004-

*Fluid Mechanics Lab* (CIEG306), Spring 2012-2016, Fall 2017- 2020

*Advanced Fluid Mechanics* (CIEG405), Spring 2022-

*Freshman Design* (CIEG161), Spring 2008-2011, 2015

*Intro to Engineering* (EGGG101) Fall 2010

*Coastal Processes* (CIEG680), Spring 2005- (alternate years)

*Matlab for Engineering Analysis* (CIEG675), Spring 2007- (alternate years), Winter 2019, 2021, 2022, 2023

*University Studies* (UNIV401, UNIV402) Fall, Spring 2007-

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### **DEPARTMENT, COLLEGE, AND UNIVERSITY SERVICE:**

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2021- College of Engineering External Advisory Council Meetings

2021- College of Engineering Leadership Team

2020 Guiding Coalition College planning committee

2020 Hydrological Systems Modeler faculty search

2020- Blue and Golden Days and Decision Days

2019 - College of Engineering Vistage Leadership Workshops

2019 - College of Engineering Strategic Planning Committee

2018 - Mentor for junior and mid-level faculty (Jovan Tatar, Mohsin Siddiqui, Monique Head)

2018 Delaware Sea Grant Associate Director search committee

2018 - College of Earth Ocean and Environment Promotion and Tenure Committee

2018 Delaware Sea Grant Research Coordinator search committee

2017 - Associate Chair, Department of Civil and Environmental Engineering

2017 - Director, Center for Applied Coastal Research

2017, 2018 Teaching pedagogy seminar for Iraqi Fulbright Scholars

2017 Delaware Sea Grant Coastal Processes Specialist search committee

2017 Delaware Sea Grant Executive Director search committee

2016 Structures faculty search committee

2016 Interviewer for CEE Laird Fellowship candidates

2015 UD video for Fulbright recruitment

2015 Interviewer for the University Distinguished Scholars event

2015 Proposal reviewer for UD student Fulbright proposal

2014 Lecturer for US/Iraq visiting Fulbright scholars

2013 Initiation of formal collaboration between the University of Delaware and the Universidad Nacional Autonoma de Mexico

2013 UD CEE alumni awards committee member

2013 Marshall and Rhodes scholar interviews for honors program

2013 Search committee for academic advisor I position

2012 Served on two-year review committee for junior faculty member

2011 Search committee chair for Civil and Environmental Engineering CNTT position.

2010 New faculty orientation program panel member

2010, 2012-2014 Organizer for Chi Epsilon FE exam review session

2009-2013, 2015-2019	Organizer for the Graduate School Forum
2008-	Advisor for Civil Engineering honors students
2007-	Civil and Environmental Engineering Undergraduate Education Committee
2008-	Civil and Environmental Engineering ABET Committee
2009-	Advisor for Delaworld for incoming honors students
2007-	Civil and Environmental Engineering Safety Committee
2007, 2009	Blue and Gold Days
2005-2010	Faculty Senate
2004-2015	Chi Epsilon faculty advisor
2009	Environmental Engineering Faculty Search Committee
2006-	Department tours
2005, 2007, 2008	Freshman orientation
2004	Department web page committee
2004	Department recruitment video

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**PROFESSIONAL SERVICE:**

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2022-	Organizing team for ICCE 2026 conference in Galveston, TX
2022-	ASCE Civil Engineering Education Innovation Working Group
2021-2022	Guest editor for special issue on education and outreach underpinned by coastal processes in <i>Continental Shelf Research</i>
2021	Reviewer for Fondazione Cariparo; Italian funding agency
2020-2021	Organizer/Chair for the 7th Young Coastal Scientists and Engineers Conference – North America, Myrtle Beach, SC
2020-	Center for Inland Bays (Delaware) Scientific and Technical Advisory Committee
2019	Organizing committee for 4th Symposium on Two-phase Modelling for Sediment Dynamics in Geophysical Flows, Newark, DE

- 2019- USACE Coastal Hazards System Technical Oversight Committee
- 2018- Moderator for Coastal List (listserv)
- 2018 Steering committee for 5th Young Coastal Scientists and Engineers Conference – Americas, Merida, Mexico
- 2017-2018 Local organizing committee for the 36<sup>th</sup> International Conference on Coastal Engineering, Baltimore, MD
- 2017 Organizer and co-chair for the Mid-Atlantic Rip Current and Beach Safety Workshop, Lewes, DE
- 2017 Steering committee for 4th Young Coastal Scientists and Engineers Conference – Americas, Dauphin Island, AL
- 2017 Abstract reviewer for the Coastal Dynamics Conference
- 2016 Steering committee for 3<sup>rd</sup> Young Coastal Scientists and Engineers Conference – Americas, Kingston, Ontario
- 2015 Organizer/Chair for the 2<sup>nd</sup> Young Coastal Scientists and Engineers Conference – North America, Newark, DE
- 2015 Panel reviewer for National Science Foundation, OCE
- 2015 NJDEP rip current awareness and surf zone injury conference
- 2014 Organizer/Chair for the 1<sup>st</sup> Young Coastal Scientists and Engineers Conference – North America, Newark, DE
- 2014 Organizer/Chair for the 2<sup>nd</sup> International Workshop on Swash Zone Processes, University of Delaware, Newark, DE
- 2014 SERDP planning meeting (Arlington, VA)
- 2012-2014 US/UK Fulbright proposal review panel
- 2012 Organized meeting between UD, USACE and DNREC personnel regarding coastal processes at Indian River Inlet
- 2012 Chair for swash zone session at the ICCE meeting
- 2012 Abstract review committee for Coastal Sediments
- 2009-2020 Associate Editor for *Journal of Waterway, Port, Coastal and Ocean Engineering*
- 2009 Mentor for the ExCEED teaching workshop
- 2008 Session chair for AGU Ocean Sciences Meeting



- 2008 Field reviewer for the Naval Research Laboratory (NRL) Postdoctoral Fellowship
- 2007-2009 Abstract reviewer for IEEE conferences
- 2007 ONR DRI workshops in Hawaii, Korea and Washington
- 2006 Organizer of workshop on Integrated Study of Swash Zone Processes held in Honolulu, HI
- 2006 Guest editor for special issue on swash zone processes in *Continental Shelf Research*
- 2005 Organizer/Chair of workshop on Integrated Study of Swash Zone Processes held at the University of Delaware
- 2004 Organizer/Chair for the 1<sup>st</sup> International Workshop on Swash Processes, Lisbon, Portugal
- 2004- Reviewer for *Coastal Engineering, Continental Shelf Research, Estuarine, Coast and Shelf Science, Geo-Marine Letters, Geophysical Research Letters, IEEE Transactions on Geoscience and Remote Sensing, IEEE Journal of Oceanic Engineering, Journal of Coastal Research, Journal of Fluid Mechanics, Journal of Geophysical Research, Journal of Hydraulic Research, Journal of Hydraulic Engineering, Journal of Waterways, Ports, Coasts and Ocean Engineering, Marine Geodesy, Marine Geology, Ocean Engineering, Water Resources Research, European Journal of Mechanics B/Fluids, Safety Science, Earth Surface Processes and Landforms*
- 2004- Proposal reviewer for the National Science Foundation (OCE, CBET, MGG, NEES, EAR and CAREER), Ohio Sea Grant, Texas Sea Grant, Washington Sea Grant, South Carolina Sea Grant, Wisconsin Water Resources Institute, Hong Kong Research Grants Council, Fulbright, SERDP, NOAA, USACE, and the Netherlands VIDI Award, ERDC, Hudson River Foundation, Fondazione, Swiss National Science Foundation
- 2017- Reviewer for tenure and promotion cases for numerous universities
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**OTHER SERVICE:**

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- 2020-2022 Center for Inland Bays Strategic Advisory Committee
- 2019 Making Waves in the Classroom wave flume delivery and high school presentations

- 2018 Canguineering outreach with Thurgood Marshall Elementary
- 2018 Guest reader at Thurgood Marshall Elementary
- 2017 Coastal engineering presentation to Science and Engineering Apprenticeship Program (SEAP) students at Naval Surface Warfare Center, Philadelphia
- 2017- Wave tank delivery and simulations at the Naval Surface Warfare Center, Philadelphia
- 2016 Wave tank delivery and simulations for National Ocean Sciences Bowl preparation (Newark Charter High School)
- 2015 Beach safety meeting with mayoral council of Cape May City, NJ
- 2015 15-second science video for DE Sea Grant and beach safety
- 2015 5<sup>th</sup> grade science night demonstration and presentation at Newark Charter Elementary School
- 2014 Assisted with FutureCities team from Holy Angels School
- 2014-2015 Thurgood Marshall Elementary science fair judge
- 2013 Thurgood Marshall Elementary science fair mentoring for 4<sup>th</sup> grade students with Chi Epsilon members
- 2013 Thurgood Marshall Elementary school STEM night
- 2013 Portable wave flume presentations given to 4<sup>th</sup> grade students at the Make A Splash Event at the St. Jones DNERR
- 2011 Waves and Tides on Beaches session (2 hours) presented to more than fifty year 5 students at Looe Primary School, Cornwall, UK
- 2011 Organizer and faculty advisor (Chi Epsilon) for pedestrian bridge building service-learning project in hurricane Katrina damaged Oceans Springs, MS. Secured funding from University of Delaware's office of service learning to help fund project
- 2011 Sea Grant sponsored talks (lunch and learn series and science presentation) at Cape Henlopen State Park
- 2010 Organizer and faculty advisor (Chi Epsilon) for observation tower structural enhancement and wetlands restoration service-learning project in hurricane Katrina damaged Waveland, MS. Secured funding from University of Delaware's office of service learning to help fund project

- 2009- Portable wave flume modules and demonstration for science and math education at McKean, A.I. DuPont, Conrad High and Newark Charter High Schools
  - 2009 Beach erosion flume experiments with 6<sup>th</sup> grade students
  - 2008, 2009 Assisted beach erosion team for Lego League competition
  - 2008 Helped elementary school teams at the Lego Robotics competition
  - 2008 Habitat for Humanity effort with Chi Epsilon members
  - 2007, 2009 Coastal Cleanup with the University of Delaware's Chi Epsilon chapter
  - 2006 Assisted with ENGINEERING CONCEPTS TO ENHANCE MATH/SCIENCE/TECH ED CURRICULA: A Workshop for Secondary School Teachers
  - 2006 met with ECyberResearch junior high team for rip current studies
  - 2006, 2008 Developed summer science modules for middle school students (through Engineering Outreach)
  - 2005- Coast Day demonstrations
  - 2005- Demonstrations to local elementary and junior high school students describing beach processes
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**IN THE NEWS:**

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- 2020 UDaily article on NSF and SERDP projects related to sensor development and munitions mobility in the nearshore
- 2020 Delaware Beach Life article on bay swimming safety
- 2019 Sea Grant article on surf zone injuries related to publication in Natural Hazards
- 2019 UDaily article on Making Waves in the Classroom ONR project
- 2019 Story on NBC news in Florida on using the wave flume in Barron Collier high School
- 2019 Interviewed by Barron Collier School District, Naples, FL on use of wave flumes for coastal engineering education
- 2018 Interviewed by WHYY on the Pea Patch Island ship wake project

- 2018 Interviewed by the NewsJournal during winter storm regarding beach erosion
- 2017 Interviewed by WDEL radio station regarding beach safety
- 2017 Interviewed by the Cape Gazette for rip current and beach safety
- 2016 Interviewed by Philadelphia Magazine for the Surf Zone Injury project.
- 2015 UDaily article on SERDP-funded munitions project
- 2015 Interviewed by WDDE.org (Delaware NPR station) on SERDP-funded munitions project
- 2015 Interviewed by WBOC-TV regarding the 2015 surf zone injury study
- 2015 Interviewed by the News Journal in relation to the surf zone injury study along the Delaware coast
- 2015 Interviewed by Delaware Beach Life Magazine in relation to beach slope variability along the Delaware coast
- 2015 Interviewed by The Review on the use of unmanned aerial vehicles
- 2015 Interviewed by Delaware Coast Press in relation to tidal mudflat study
- 2015 UDaily article on thermal infrared imagery for tidal mud flat elevations
- 2014 UDaily article on the surf zone injury study
- 2014 Philadelphia inquirer article on surf zone injuries
- 2014 Interviewed by the Cape Gazette for research related to surf zone injuries
- 2014 WHYY radio interview on surf zone injuries
- 2014 West Hawaii newspaper article on surf zone injuries
- 2013 UDaily article on tidal flow in Kent County Delaware
- 2012 Interviewed by NewsJournal regarding Hurricane Sandy
- 2011 National Geographic Canada, BBC and roughly 30 other new agencies reporting on sediment transport study at Perranporth beach UK

2011 Interviewed by WDEL radio station regarding beach erosion  
2008 Interviewed for coastal processes section for DNREC informational video  
2006 Assisted NOAA film crew for rip current video  
2006 Interviewed by Cape Gazette in Rehoboth Beach, DE  
2005 Rip current demonstration and interview for CBS morning show  
2005 Interviewed by LA Times regarding rip currents

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**PROFESSIONAL AFFILIATIONS:**

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American Geophysical Union  
American Shore and Beach Preservation Association  
American Society of Civil Engineers  
American Society of Engineering Education  
Chi Epsilon

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