

Tal Ezer

Old Dominion University
Center for Coastal Physical Oceanography
4111 Monarch Way, Norfolk, VA 23508

(Email: tezer@odu.edu, Web: <http://www.ccpo.odu.edu/Facstaff/faculty/tezer/ezer.html>)

Education:

1989 Ph.D. *Physical Oceanography*, Florida State University, USA
1984 M.Sc. *Atmospheric Sciences*, Hebrew University, Israel
1981 B.Sc. *Physics and Mathematics*, Hebrew University, Israel

Professional Experience:

2009-present *Professor*, Old Dominion Univ., Dept. of Ocean & Earth Sciences, Norfolk, VA
9/2014-12/2014 *Visiting Professor*, National Oceanography Center & Univ. of Southampton, UK
2007-2009 *Associate Professor*, Old Dominion University, Ocean & Earth Sciences
1989-2007 *Research Staff/Scholar*, Princeton University, Atmospheric & Oceanic Sciences
1985-1989 *Research Assistant*, Florida State University, Oceanography Dept., Tallahassee, FL
1981-1985 *Research Scientist*, Israel Oceanographic & Limnological Research Institute
1974-1978 *Officer*, Air Force

Honors and Awards:

2020 Stanford University World Ranking of Scientists (top 2% most-cited scientists in different fields)
2019 National Council of Nominators, 25th Annual Heinz Award in Environment
2018 MIT SOLVE Competition, winning team for Coastal Community Resilience (Green Stream team)
2017 College of Sciences Distinguished Research Award
2016 Paper on sea level rise was most cited paper of *JGR-Oceans* 2013-2016.
2014-2019 Two "Highly Cited Papers" (top 1% in field), 1 in Geosciences 1 in Plants & Animal Sci.
2013 Editors' Citation for Excellence in Refereeing for Geophysical Research Letters
2007 AGU Outstanding Student Paper Award (co-author with advisee student)
2002 National Ocean Partnership Program (NOPP), Excellence in Partnering Award
2001 Distinguished Visiting Professor, Academia Mexicana de Ciencias
1999- Listing: Who's Who in Science and Engineering
1987 The Honor Society of Phi Kappa Phi
1985-1988 Israel Oceanographic and Limnological Research Scholarship
1984 The Hebrew University's Gershon Meirbaum Scholarship
1983 The Hebrew University's Shindel Prize
1982 Israel Maritime League Award

Other Professional Activities:

Editor, International Workshop on Modeling the Ocean, 12 Special Issues, Springer-Nature Publ. (IWMO-2009 to IWMO-2019).

Co-Editor, Special Issue of Ocean Modelling on Coupled Models, Elsevier Publ. (2017-2019)

Co-Editor (2001-present), *Ocean Dynamics* (responsible editor for over 80 papers)

Convener/session chair various international meetings (WPGM2006, Beijing; PICES2008, Dalian, China; IWMO2009, Taipei, Taiwan; IWMO2010, Norfolk, VA; IWMO2011, Qingdao, China; IWMO2012, Yokohama, Japan; IWMO2013, Bergen, Norway; IWMO2014, Halifax, Canada; IWMO2015, Canberra, Australia; IWMO2016, Bologna, Italy; IWMO2018, Brazil; IWMO2019, Wuxi, China)

Organizer, workshops of terrain-following ocean model users (1996-2003)

Organizer and lecturer, summer coastal modeling training courses

Manager, Princeton Ocean Model (POM) Users Group (~6000 users; 70 countries)

Review Panel, national funding agencies.

2017 Chesapeake Bay Program- review panel of the CB Climate Change Assessment

2013, 2018 Maryland Sea Level Rise Projection, Climate Change Commission

Consultant to the *World Bank's* international project: The Red Sea- Dead Sea Conveyer Study
2014/15 Validation Test Panel for NRL model development, The Naval Oceanographic Office
Gulf of Mexico Research Initiative (BP Oil Spill Response)

Recent Publications (last 4 years)

- Over 130 total refereed publications (65% as first/single author; in 30 different journals; 6 book chapters)
- Google Scholar Citations~6000 (H-Index~41, I10 Index ~71)
- Over 70 invited presentations and seminars

Ezer, T., X. Fanghua, Z. Liu, E. Stanev, S. Wang and J. Wei (2021), The 11th International Workshop on Modeling the Ocean (IWMO 2019) in Wuxi, China, June 17-20, 2019, *Ocean Dynamics*, 71(4), 471-474, doi:10.1007/s10236-021-01448-x.

Dangendorf, S., T. Frederikse, L. Chafik, J. Klinck, **T. Ezer**, and B. Hamlington, (2021) Data-driven reconstruction reveals large-scale ocean circulation control on coastal sea level, *Nature Climate Change*, in press.

Qiao, F., **T. Ezer**, K. Fennel, I. Ginis, J. McWilliams (Eds.) (2021) Coupled Models, Special Issue of Ocean Modelling, 2019-2021, Elsevier Pbl., <https://www.sciencedirect.com/journal/ocean-modelling/special-issue/109681JX5X0/>.

Ezer, T. (2020), The long-term and far-reaching impact of hurricane Dorian (2019) on the Gulf Stream and the coast, *Journal of Marine Systems*, 208, doi:10.1016/j.jmarsys.2020.103370.

Ezer, T., (2020), Analysis of the changing patterns of seasonal flooding along the U.S. East Coast, *Ocean Dynamics*, 70(2), 241-255, doi:10.1007/s10236-019-01326-7

- Ezer, T.** and S. Dangendorf (2020), Global sea level reconstruction for 1900-2015 reveals regional variability in ocean dynamics and an unprecedented long weakening in the Gulf Stream flow since the 1990s, *Ocean Science*, 16(4), 997-1016, doi:10.5194/os-16-997-2020.
- Ezer, T.,** R. de Camargo, C. A. S. Tanajura, F. Xu, and H. Xue (2020), The 10th International Workshop on Modeling the Ocean (IWMO 2018) in Santos, Brazil, June 25-28, 2018, *Ocean Dynamics*, 70(6), 839-841, doi:10.1007/s10236-020-01374-4
- Bruciaferri, D., G. Shapiro, S. Stanichny, A. Zatsepin, **T. Ezer**, F. Wobus, X. Francis and D. Hilton (2020), The development of a 3D computational mesh to improve the representation of dynamic processes: The Black Sea test case, *Ocean Modelling*, 146(2020), doi:10.1016/j.ocemod.2019.101534.
- Oey, L.Y., Y. Noh, J. Berntsen, S.Y. Kim, H. Mitsudera and **T. Ezer** (2020), The 9th International Workshop on Modeling the Ocean (IWMO 2017) in Seoul, Korea, July 3-6, 2017, *Ocean Dynamics*, 70(1), 163-164, doi:10.1007/s10236-019-01322-x.
- Han, W., D. Stammer, P. Thompson, **T. Ezer**, H. Palanisamy, X. Zhang, C. Domingues, L. Zhang and D. Yuan, (2020), Impact of basin-scale climate modes on coastal sea level: a review, Chap. 9, pp. 247-295, In: Ponte et al. (Eds.), *Relationships Between Coastal Sea Level and Large Scale Ocean Circulation*, Space Sci. Ser. ISSI Vol. 75, 978-3-030-45633-7, Springer Nature, Switzerland.
- Lawson, G., M. Sosonkina, **T. Ezer** and Y. Shen, (2020), Applying EMD/HHT analysis to power traces of applications executed on systems with Intel Xeon Phi, *International Journal of High Performance Computing Applications*, 34(2), 187-198, doi:10.1177/1094342017731612.
- Ezer, T.,** (2019), Regional differences in sea level rise between the Mid-Atlantic Bight and the South Atlantic Bight: Is the Gulf Stream to blame?, *Earth's Future*, 7(7), 771-783, doi:10.1029/2019EF001174.
- Ezer, T.,** (2019), Hurricanes and the Gulf Stream: A double whammy impact on coastal flooding, *CCPO Circulation*, Vol. 24, No. 2, 1-2.
- Ezer, T.,** (2019), Numerical modeling of the impact of hurricanes on ocean dynamics: sensitivity of the Gulf Stream response to storm's track, *Ocean Dynamics*, 69(9), 1053-1066, doi: 10.1007/s10236-019-01289-9.
- Ponte, R. M. et al (**T. Ezer** and 53 co-authors) (2019), Towards comprehensive observing and forecasting systems for monitoring and predicting regional to coastal sea level, *OceanObs19, Frontiers in Marine Science*, section Coastal Ocean Processes, doi:10.3389/fmars.2019.00437.
- Han, W., D. Stammer, C. Domingues, **T. Ezer**, H. Palanisamy, P. Thompson, X. Zhang, L. Zhang and D. Yuan, (2019), Impact of natural internal climate modes on coastal sea level: a review, *Surveys in Geophysics*, doi:10.1007/s10712-019-09562-8.
- Ezer, T.,** (2018), On the interaction between a hurricane, the Gulf Stream and coastal sea level, *Ocean Dynamics*, 68, 1259-1272, doi:10.1007/s10236-018-1193-1.
- Ezer, T.,** (2018), The increased risk of flooding in Hampton Roads: On the roles of sea level rise, storm surges, hurricanes and the Gulf Stream. In: *The Hampton Roads Sea Level Rise Preparedness and Resilience Intergovernmental Pilot Project*, Toll, R. and G. F. Kuska (Eds.), *Marine Technology Society Journal*, 52(2), 34-44, doi:10.4031/MTSJ.52.2.6.
- Ezer, T.,** L.-Y. Oey, H. Xue, M. Zavatarelli, G. Sannino, R. de Camargo (2018), Editorial - The 8th International Workshop on Modeling the Ocean (IWMO 2016) in Bologna, Italy, June 7-10, 2016, *Ocean Dynamics*, 68(1), 153-156, doi:10.1007/s10236-017-1123-7.
- Boesch, D.F., W.C. Boicourt, R.I. Cullather, **T. Ezer**, G.E. Galloway, Jr., Z.P. Johnson, K.H. Kilbourne, M.L. Kirwan, R.E. Kopp, S. Land, M. Li, W. Nardin, C.K. Sommerfield, W.V. Sweet. (2018), *Sea-level Rise Projections for Maryland 2018*, University of Maryland Center for Environmental Science, Cambridge, MD, 28pp.

- Atkinson, L. and **T. Ezer**. (2018), Norfolk, Virginia: A city dealing with increased flooding, Chapter 9.1, pp. 322-326, In: Climate Change and Cities, Second Assessment Report of the Urban Climate Change Research Network, Editors: Rosenzweig, C., W. D. Solecki, P. Romero-Lankao, S. Mehrotra, S. Dhakal and S. A. Ibrahim, Cambridge University Press.
- Hermann, M., S. Doney, T. **Ezer**, K. Gedan, P. Morefield, B. Muhling, D. Pirhalla, S. Shaw, (2018) Scientific and Technical Advisory Committee Review of the Chesapeake Bay Program Partnership's Climate Change Assessment Framework and Programmatic Integration and Response Efforts. STAC Publication Number 18-001, Edgewater, MD., 32pp.
- Rueda-Roa, D., T. **Ezer** and F. Muller-Karger (2018), Description and mechanisms of the mid-year upwelling in the southern Caribbean Sea from remote sensing and local data, *Journal of Marine Science and Engineering*, 6(2), 36, doi:10.3390/jmse6020036.
- Lawson, G., M. Sosonkina, T. **Ezer** and Y. Shen, (2018), Applicability of the Empirical Mode Decomposition for power traces of large-scale applications, In: Wyrzykowski R., Dongarra J., Deelman E., Karczewski K. (eds) *Parallel Processing and Applied Mathematics*. PPAM 2017, 10778, 71-80, Springer, doi:10.1007/978-3-319-78054-2-7.
- Ezer**, T., L. P. Atkinson and R. Tuleya (2017), Observations and operational model simulations reveal the impact of Hurricane Matthew (2016) on the Gulf Stream and coastal sea level, *Dynamics of Atmospheres & Oceans*, 80, 124-138. doi:10.1016/j.dynatmoce.2017.10.006.
- Ezer**, T. and L. P. Atkinson (2017), On the predictability of high water level along the U.S. East Coast: can the Florida Current measurement be an indicator for flooding caused by remote forcing?, *Ocean Dynamics*, 67(6), 751-766, doi:10.1007/s10236-017-1057-0.
- Ezer**, T. (2017), A modeling study of the role that bottom topography plays in Gulf Stream dynamics and in influencing the tilt of mean sea level along the U.S. East Coast, *Ocean Dynamics*, 67(5), 651-664, doi:10.1007/s10236-017-1052-5.
- Cheng, Y., T. **Ezer** and L. P. Atkinson (2017), Analysis of tidal amplitude changes using the EMD method, *Continental Shelf Research*, 148, 44-52, doi:10.1016/j.csr.2017.09.009.
- Oey, L.-Y., T. **Ezer**, J. Sheng, F. Chai, J. Gan, K. Lamb and Y. Miyazawa (2017), Editorial - The 6th International Workshop on Modeling the Ocean (IWMO 2014), *Ocean Dynamics*, 67(2), 317-319, doi:10.1007/s10236-016-1028-x.
- Oey, L.-Y., X.-H. Wang, T. **Ezer**, Y. Noh, A. Hogg (2017), Editorial - The 7th International Workshop on Modeling the Ocean (IWMO 2015), *Ocean Dynamics*, 67(12), 1645-1647, doi:10.1007/s10236-017-1103-y.
- Lawson, G., M. Sosonkina, T. **Ezer** and Y. Shen, (2017), Empirical Mode Decomposition for Modeling of Parallel Applications on Intel Xeon Phi Processors, *CCGrid '17 Proceedings of the 17th IEEE/ACM International Symposium on Cluster, Cloud and Grid Computing* pp. 1000-1008, IEEE/ACM CCGRID Publ., doi:10.1109/CCGRID.2017.99.
- Ezer**, T. (2017), Comments on "Non-hydrostatic effects in the Dead Sea" by Padon and Ashkenazy, *Ocean Sci. Discuss.*, doi:10.5194/os-2017-29-RC1.