

## John M. Klinck

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### Professional Preparation:

Clemson University	Clemson, SC	Physics	B.S., 1972
University of North Carolina	Chapel Hill, NC	Physics	M.S., 1975
North Carolina State University	Raleigh, NC	Marine Science	Ph.D., 1980
Florida State University	Tallahassee, FL	Oceanography	PostDoc, 1979-81

### Appointments

1996-present	Professor	Old Dominion University
1989-1996	Associate Professor	Old Dominion University
June-Dec. 1987	Visiting Professor	Old Dominion University
1983-1989	Assistant Professor	Texas A&M University
Jan-May 1982	Visiting Assistant Professor	Texas A&M University
1981-1983	Assistant Research Scientist	Texas A&M University
1979-1981	Postdoctoral Research Associate	Florida State University

### Relevant publications:

- (Full list of references: <https://scholar.google.com/citations?user=WvCEZrQAAAAJ&hl=en>)
- Dangendorf, S., Frederikse, T., Chafik, L., Klinck, J. M., Ezer, T., & Hamlington, B. D., 2021. Data-driven reconstruction reveals large-scale ocean circulation control on coastal sea level. *Nature Climate Change*, 11(6), 514-520.
- Mack, S.L., M.S. Dinniman, J.M. Klinck, D.J. McGillicuddy, Jr., L. Padman, 2019. Modeling ocean eddies on Antarctica's cold water continental shelves and their effects on ice shelf basal melting. *J Geophys. Res.*, 124(7), 5067-508. doi: 10.1029/2018JC014688
- Mack, S.L., M.S. Dinniman, D.J. McGillicuddy, P.N. Sedwick, and J.M. Klinck, 2017. Dissolved iron transport pathways in the Ross Sea: Influence of tides and horizontal resolution in a regional ocean model. *J. Marine Sys.*, 166, 73-86, doi: 10.1016/j.jmarsys.2016.10.008.
- Dinniman, M.S., J.M. Klinck, L.-S. Bai, D.H. Bromwich, K.M. Hines and D.M. Holland, 2015. The effect of atmospheric forcing resolution on delivery of ocean heat to the Antarctic floating ice shelves. *J. Climate*, 28(15), 6067-6085, doi:10.1175/JCLI-D-14-00374.1
- Smith Jr., W.O., M.S. Dinniman, E.E. Hofmann and J.M. Klinck, 2014. The effects of changing winds and temperatures on the oceanography of the Ross Sea in the 21st century. *Geophys. Res. Lett.*, doi: 10.1002/2014GL059311
- Dinniman, M.S., J.M. Klinck and W.O. Smith, Jr., 2010. A model study of Circumpolar Deep Water on the west Antarctic Peninsula and Ross Sea continental shelves. *Deep-Sea Res. II*, 58, 1508-1523, doi: 10.1016/j.dsr2.2010.11.013.
- Dinniman, M.S., J.M. Klinck and W.O. Smith, Jr., 2007. The influence of sea ice cover and icebergs on circulation and water mass formation in a numerical circulation model of the Ross Sea, Antarctica. *J. Geophys. Res.*, 112(C11), C11013, doi: 10.1029/2006JC004036.

- Graham, J.A., M.S. Dinniman, and J.M. Klinck, 2016. Impact of model resolution for on-shelf heat transport along the West Antarctic Peninsula. *J. Geophys. Res.*, 121, 7880-7897, doi:10.1002/2016JC011875.
- St-Laurent, P., J.M. Klinck, and M.S. Dinniman, 2016. Impact of local winter cooling on the melt of Pine Island Glacier, Antarctica. *J. Geophys. Res.*, **120**, 6718-6732. doi: 10.1002/2915JC010709.
- Mack, S., L. Padman, J.M. Klinck, 2013. Extracting tidal variability of sea ice concentration from AMSR-E passive microwave single-swath data: a case study of the Ross Sea. *Geophys. Res. Lett.*, **40**, doi: 10.1002/grl.50128.
- St-Laurent, P., J.M. Klinck, and M.S. Dinniman, 2013. On the Role of Coastal Troughs in the Circulation of Warm Circumpolar Deep Water on Antarctic Shelves. *J. Phys. Ocean.*, **43**(1), 51-64. doi: 10.1175/JPO-D-11-0237.1
- Dinniman, M.S., J.M. Klinck and E.E. Hofmann, 2012. Sensitivity of Circumpolar Deep Water transport and ice shelf basal melt along the west Antarctic Peninsula to changes in the winds. *J. Climate*, **25**, 4799-4816.

### **Synergistic Activities**

Teach graduate classes in GFD, simulation methods for ocean circulation, and dynamics of large scale circulation. Participant in a senior field based undergrad class for oceanography majors. Reviewer for journals (JGR, J Mar Sys, Nature, Eco Apps, J Coast Res) and for funding agencies (NSF, NERC, NSERC).

*Research Interests and Expertise:* Analytical and numerical modelling of physical and biological processes in oceanic, coastal and estuarine environments.