

AMY C. CLEMENT

Professional Preparation.

Columbia College, Columbia University	Physics	B.A. 1993
Columbia University	Physical Oceanography	M.A. 1995
Columbia University	Physical Oceanography	M. Phil. 1996
Columbia University	Climate Dynamics	Ph.D. 1999
University of Paris (Post-doctorate)	Climate Dynamics	1998 – 2000

Appointments.

Professor. Department of Atmospheric Science, Rosenstiel School of Marine and Atmospheric Science, University of Miami. June 2011 to present.

Adjunct Research Scientist. Lamont-Doherty Earth Observatory, Columbia University. March 2001 to present.

Narrative of research experience

I conduct experiments with climate models of varying complexity that allow me to deconstruct the mechanisms of climate change and understand their basic processes. This has led to revisions in our understanding of the role of the ocean and clouds in climate variability. My most recent work has focused on Atlantic climate variability and predictability, including sea level rise and changes in extreme heat and rainfall. While my research expertise and main teaching and mentoring is on the physical aspects of climate, I have developed multi-disciplinary curricula on 'Climate and Society,' and have co-taught a graduate course on this topic since 2002. Most recently, I have been engaged in leading research and action on climate change adaptation in South Florida as principal investigator on several interdisciplinary projects, and through my role as co-founder and co-director of the Resilient 305 Collaborative, member of the Board of Directors of Miami Waterkeeper, and Vice Chair of the City of Miami's Climate Resilience advisory board.

Short list of key publications

- Harrison, Tyler R., Angela Clark, Amy Clement, Joanna Lombard, Gina Maranto, Abraham Parrish, Sam Purkis, Marcus Reamer, Olivia Collins, Caroline Lewis, Mayra Cruz, Anaruth Solache, Advancing a HyperLocal Approach to Community Engagement in Climate Adaptation: Results from a South Florida Pilot Study in Two Communities. In press in *PLOS Climate*.
- Troxler, T., A. Clement, M Bhat, J Bolson, C Caban-Aleman, A Dodd, S Evans, A Fleming, C Genatios, J Gilbert, C Holder, M Ilcheva, J Lombard, Katharine Mach, J Murley, A Knowles, J Obeysekera, J Posner, A Sarwat, J Stuart, M Sukop, E Wheaton, S Wdowski, 2021: A System for Resilience Learning: Developing a community-driven, multi-sector research approach for greater preparedness and resilience to shocks and stresses in the Miami metropolitan region. *Journal of Extreme Events* <https://doi.org/10.1142/S2345737621500196>.
- Klavans, J.M., Cane, M.A., Clement, A.C. et al. NAO predictability from external forcing in the late 20th century. *npj Clim Atmos Sci* 4, 22 (2021). <https://doi.org/10.1038/s41612-021-00177-8>
- Murphy, L., J. Klavans, A. Clement, M. Cane, 2020: Investigating the roles of external forcing and ocean circulation on the Atlantic Multidecadal Variability in a large ensemble climate model hierarchy. *Journal of Climate* 34, 12; 10.1175/JCLI-D-20-0167.1

- Klavans, J. M., Clement, A. C., Murphy, L. N., & Zhang, H. (2020). Identifying the externally forced Atlantic Multidecadal Variability signal through Florida rainfall. *Geophysical Research Letters*, 47, e2020GL088361. <https://doi.org/10.1029/2020GL088361>
- Clement, A., K. Bellomo*, L. N. Murphy, Ma. A. Cane, G. Rädcl, B. Stevens, T. Mauritsen, 2015: The Atlantic Multidecadal Oscillation Without a Role for Ocean Circulation. *Science*, 350, 320-324.

Synergistic activities:

- Member, AGU Atmospheric Science Section awards canvassing committee (Fall 1029present); AGU Fellows selection committee (Jan 2015- 2019)
- Chair, Atmospheric Research Awards Committee, American Meteorological Society (2016-2019)
- Chair, Grove 2030 Parks and public spaces committee (Jan 2017-Dec 2019)
- Member, Resilient Great Miami and the Beaches, Living with Water working group (2018)
- Member, Board of Directors of Miami Waterkeeper (2017-present)
- Vice Chair, City of Miami Climate Resilience Committee (2020-present)
- Co-Director, Resilient 305 Research Collaborative (2020- present)
- Editor, *Journal of Climate* (2017-2020)

Awards and Honors:

- University of Miami SEEDS You Choose Leadership Award (2019, 2017, 2018, 2019, 2020)
- University of Miami Provost's award for Scholarly Activity (2019)
- Michio Yanai Distinguished Lecture, UCLA Department of Atmospheric Science (2018)
- Rosenstiel School Outstanding Faculty Mentor Award (2015)
- Fellow of the American Meteorological Society (2015)
- Fellow of the American Geophysical Union (2007)
- American Geophysical Union James B. Macelwane Medal (2007)
- American Meteorological Society Clarence Leroy Meisinger Award (2007)
- Most cited paper 2003-2007 Award, *Paleogeography, Palaeoclimatology, Paleoecology*, Elsevier.
- NSF CAREER Award (2002-2008)
- Ph.D. Awarded with Distinction, Columbia University (1998)
- Lamont-Doherty Earth Observatory Bruce Heezen Prize for outstanding record and contributions as a graduate student (1996)