

# Georgy E Manucharyan

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- EDUCATION**
- Ph.D.*, Atmosphere Ocean and Climate Dynamics, 2014  
Department of Geology & Geophysics, Yale University, New Haven, CT, USA
  - B.S.* with *Honors* in Applied Physics and Mathematics, 2007  
Department of Aerophysics and Space Research,  
Moscow Institute of Physics and Technology, Dolgoprudny, Russia.
- RESEARCH EXPERIENCE**
- Weston Howland Jr. Postdoctoral Scholar, WHOI 2014-present  
Research topics: “*Arctic Ocean Halocline*” and “*Marginal-Ice-Zone Eddy Formation*”
  - Graduate Research Fellow, Yale University 2008–2014  
PhD thesis: “*The Role of Upper-Ocean Mixing in Large-Scale Ocean and Climate Dynamics*”.  
M. Phil thesis: “*Ocean’s Response to Tropical Cyclones*”.
  - CLIVAR Carbon and Hydrographic Oceanography Cruise, R/V Melville (PO2) 2013  
Research topic: “*Oceanic Quasi-Geostrophic Currents and Mixed Layer Turbulence*”.
  - Yale School of Engineering and Applied Science, Yale University 2012  
Research Topic: “*Markov Chain Representation of Chaotic Dynamical Systems*”.
  - Geophysical Fluid Dynamics Independent Research Group 2010–2013  
Depts of Applied Mathematics and Geology & Geophysics, Yale University.  
Research topic: “*Steady rotating density currents on a slope*”.
  - Geophysical Fluid Dynamics Summer School at WHOI – Fellow 2010  
Research topic: “*Dynamics of the Mixed Layers in Stratified Sheared Flows*”.
  - Shirshov Institute of Oceanology, Moscow, Russia - Research Assistant 2005–2007  
Research topic: “*Ocean Data Assimilation Techniques*”.
- PUBLICATIONS**
- Manucharyan G.E. & A.V. Fedorov (2014), Robust ENSO across a wide range of climates, *Journal of Climate* 27, 5836–5850.
  - Manucharyan G.E., W. Moon, F. Sévellec, A.J. Wells, J.-Q. Zhong, & J.S. Wettlaufer (2014), Steady turbulent density currents on a slope in a rotating fluid, *Journal of Fluid Mechanics*, Vol 746, pp 405–436.
  - Manucharyan G.E. & M.-L. Timmermans (2013), Generation and separation of mesoscale eddies from surface ocean fronts, *Journal of Physical Oceanography*, 43, 2545–2562.
  - Manucharyan G.E., C.M. Brierley, & A.V. Fedorov (2011), Climate impacts of intermittent upper ocean mixing induced by tropical cyclones, *Journal of Geophysical Research*, 116, C11038.
  - Manucharyan G.E. (2010), Dynamics of the Mixed Layers in Stratified Shear Flows, WHOI GFD Summer School, Ann. Proc. Vol. 2010, pp 240–259.  
*Submitted (drafts available upon request)*
  - Manucharyan G.E. & C.P. Caulfield, Entrainment and mixed-layer dynamics of a surface-stress-driven stratified fluid, *Journal of Fluid Mechanics* (in review).  
*In preparation (drafts available upon request)*
  - Manucharyan G.E. & A.V. Fedorov, Impacts of tropical cyclones’ vorticity forcing on large-scale oceanic circulation (in preparation)
  - Manucharyan G.E. & A.V. Fedorov, Walker circulation response to east-west SST gradients (in preparation).

<b>TEACHING EXPERIENCE</b>	<i>Yale University</i>	
	• Physical Oceanography – Teaching Assistant, Guest Lecturer	2010,11,13,14
	• Introduction to Concepts in Geology & Geophysics – Guest Lecturer	2013
	• Asymptotic Methods – Guest Lecturer	2012
	• Physics of Weather and Climate – Teaching Assistant.	2012
	• Atmosphere, Ocean, and Environmental Change – Laboratory Instructor.	2009
	<i>Physics &amp; Technology Evening High School, Dolgoprudny, Russia</i>	
• Advanced Mathematics – Lecturer.	2007–2008	
• Physics, Mathematics – Teaching Assistant.	2004–2005	
<b>FELLOWSHIPS &amp; AWARDS</b>	Weston Howland Jr. Postdoctoral Scholar, Woods Hole Oceanographic Institution	2014
	Philip M. Orville Prize <i>“For recognition of outstanding research and scholarship in the Earth Sciences”</i> , Yale University	2014
	Elias Loomis Prize for <i>“Excellence in Studies of Physics of the Earth”</i> , Department of Geology and Geophysics, Yale University.	2011
	Charlton Dows Cooksey Jr. Memorial Fellowship, Yale University.	2010–2012
	Geophysical Fluid Dynamics Fellowship, WHOI	Summer 2010
	Bateman Fellowship, Yale University.	2008
	Full Undergraduate Scholarship Moscow Institute of Physics and Technology, Dolgoprudny, Russia	2003-2007
	<b>CONFERENCES &amp; WORKSHOPS</b>	
Geophysical Fluid Dynamics Summer School, WHOI, Woods Hole, MA.	2009–12,14	
Conference on Atmospheric and Oceanic Fluid Dynamics, Newport, RI Title: <i>“Generation and Separation of Mesoscale Eddies from Surface Ocean Fronts”</i> .	2013	
65 <sup>th</sup> annual meeting of APS, Division of Fluid Dynamics, San Diego, CA Titles: <i>“Entrainment and Mixing Dynamics of Surface-Stress-Driven Linearly Stratified Flow in a Cylinder”</i> ; <i>“Steady Rotating Density Currents on a Slope”</i> .	2012	
American Geophysical Union Fall Meeting, San Francisco, CA Title: <i>“Global Impacts of Intermittent Mixing Induced by Tropical Cyclones”</i> .	2011	
Ocean Science Meeting, Portland, OR.	2010	
Fundamental Problems in Climate Dynamics, PCTS, Princeton, NJ.	2009	
<b>SEMINARS</b>	• <i>“Generation and separation of mesoscale eddies from surface ocean fronts”</i> University of Washington, Applied Physics Laboratory	03/2014
	Woods Hole Oceanographic Institution, Physical Oceanography Department	10/2013
	Courant Institute for Mathematical Sciences, CAOS	09/2013
	University of Miami, Rosenstiel School of Marine and Atmospheric Science	11/2012
	• <i>“Persistent ENSO in climates with reduced climatological SST gradients”</i> Columbia University, Lamont-Doherty Earth Observatory	01/2014
	Princeton University, Program in Atmospheric and Oceanic Sciences	10/2013
	• <i>“The influence of hurricanes on the large-scale oceanic circulation”</i> MIT-WHOI Joint Program Student Seminar	10/2014
	Yale University, Department of Geology & Geophysics	10/2011
<b>COLLABORATORS</b>	Alexey Fedorov (Yale), Mary-Louise Timmermans (Yale), Andrew Wells (Oxford), John Wettlaufer (Yale, Oxford), Colm-cille Caulfield (Cambridge), Jin-Qiang Zhong (Tongji U.), Woosok Moon (Cambridge), Florian Sévellec (U. Southampton), Chris Brierley (U. College London), Michael Spall (WHOI).	