

## **Matthew R. Mazloff**

### **Professional Preparation:**

University of Vermont	Physics	B.S., 2000
University of Vermont	Physics	M.S. 2002
MIT-WHOI Joint Program	Physical Oceanography	S.M., 2006
MIT-WHOI Joint Program	Physical Oceanography	Ph.D., 2008
SIO-UCSD	Physical Oceanography	2008 - present

### **Appointments:**

Jan. 2011 - present      Programmer/Analyst IV, Scripps Institution of Oceanography  
Aug. 2008 - Dec. 2010    Postdoctoral Researcher, Scripps Institution of Oceanography  
June 2002 - July 2008    Research Assistant, Massachusetts Institute of Technology  
May 1999 - June 2002    Research Assistant, University of Vermont

### **Five Most Pertinent Publications:**

- [1] I. Cerovecki, L.D. Talley, and M.R. Mazloff. A comparison of southern ocean air-sea buoyancy flux from an ocean state estimate with five other products. *Journal of Climate*, 2011, <http://dx.doi.org/10.1175/2011JCLI3858.1>
- [2] M.R. Mazloff. On the sensitivity of the Drake Passage transport to air-sea momentum flux. *Journal of Climate*, 2011, <http://dx.doi.org/10.1175/JCLI-D-11-00030.1>
- [3] M. Woloszyn, M. Mazloff, and T. Ito. Testing an eddy-permitting model of the southern ocean carbon cycle against observations. *Ocean Modelling*, 39(1-2):170182, 2011, <http://dx.doi.org/10.1016/j.ocemod.2010.12.004>
- [4] T. Ito, M. Ragsdale, and M.R. Mazloff. Anthropogenic carbon dioxide transport in the Southern Ocean driven by Ekman flow. *Nature*, 463:8083, 2010, <http://dx.doi.org/10.1038/nature08687>
- [5] M.R. Mazloff, P. Heimbach, and C. Wunsch. An eddy-permitting Southern Ocean state estimate. *Journal of Physical Oceanography*, 40(5):880899, 2010, <http://dx.doi.org/10.1175/2009jpo4236.1>

### **Five Additional Pertinent Publications:**

- [1] Y. L. Firing, T. K. Chereskin, and M.R. Mazloff. Vertical structure and transport of the Antarctic Circumpolar Current in Drake Passage from direct velocity observations. *Journal of Geophysical Research*, 116, 2011, <http://dx.doi.org/10.1029/2011JC006999>
- [2] A. Griesel, M.R. Mazloff, and S. T. Gille. Mean Dynamic Topography in the Southern Ocean: Evaluating Antarctic Circumpolar Current Transport. *Journal of Geophysical Research*, 2011, <http://dx.doi.org/10.1029/2011JC007573>
- [3] R.E. Todd, D.L. Rudnick, M.R. Mazloff, R.E. Davis, and B.D. Cornuelle. Poleward flows in the southern California Current System: Glider observations and numerical simulation. *Journal of Geophysical Research*, 116(C2), 02 2011, <http://dx.doi.org/10.1029/2010JC006536>

[4] R. Abernathey, J. Marshall, M.R. Mazloff, and E. Shuckburgh. Enhancement of mesoscale eddy stirring at steering levels in the Southern Ocean. *Journal of Physical Oceanography*, 40(1):170184, 2010 <http://dx.doi.org/10.1175/2009JPO4201.1>

[5] Mazloff, M. R. The Dynamics of the Southern Ocean Meridional Overturning Circulation as Diagnosed from an Eddy Permitting State Estimate, Ph.D. thesis, Massachusetts Institute of Technology and the Woods Hole Oceanographic Institution, Cambridge, Massachusetts, 2008

### **Synergistic Activities:**

- Produced two regional ocean state estimates and made them available via server (sos.ucsd.edu)
- Participated in the CLIVAR/CliC/SCAR Southern Ocean Regional Panel (2009 & 2011)
- Participated in a TeraGrid planning process workshop (2008): <http://www.teragridfuture.org/>
- Participated in the CLIVAR/GSOP Velocity Workshop (2007)
- Guest lecturer on oceanography at two Massachusetts public schools (2005-2007): Cambridge Rindge and Latin School (Cambridge, MA) and the Rita Edwards Miller School (Westford, MA)

### **Collaborators & Other Affiliations:**

#### **Recent Collaborators and Co-Editors:**

R. Abernathey (MIT), J. Campin (MIT), I. Cerovecki (SIO), T. Chereskin (SIO), B. Cornuelle (SIO), R.E. Davis (SIO), R. Ferrari (MIT), Y. L. Firing (SIO), G. Forget (MIT), S. Gille (SIO), A. Griesel (ZMAW), P. Heimbach (MIT), C. Hill (MIT), T. Ito (CSU), M. Losch (MIT), J. Marshall (MIT), D. Menemenlis (JPL), R. Ponte (AER), M. Ragsdale (CSU), D.L. Rudnick (SIO), E. Shuckburgh (BAS), L. Talley (SIO), R.E. Todd (SIO), S. Vinogradov (AER), C. Wunsch (MIT)

#### **Graduate Advisors and Postdoctoral Sponsors**

Jie Yang (UVM), Carl Wunsch (MIT), Teresa Chereskin (SIO), Bruce Cornuelle (SIO)