

JESSICA MASICH

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EDUCATION

Scripps Institution of Oceanography

University of California, San Diego

M.S., Physical Oceanography

Ph.D., Physical Oceanography

2010 - Present

January 2014

expected September 2017

The University of Chicago

B.A., Physics with general honors, minor in Environmental Studies

2004-2008

June 2017

WORK EXPERIENCE

Scripps Institution of Oceanography, San Diego, CA

Postdoctoral Researcher

Ph.D. Candidate

Graduate Student Researcher

2010-present

Sept 2017 - Jan 2018

Jan 2014 - Sept 2017

Jul 2010 - Dec 2013

- Dissertation: analyzed high-resolution, basin-scale model of the Southern Ocean and observational data from the Drake Passage to map the momentum balance in the Southern Ocean
- Field work: instrument deployment and recovery cruise in the Drake Passage, Nov 2011
- Teaching: ran weekly discussion sections, exam reviews, and labs as teaching assistant for graduate-level Introduction to Physical Oceanography

Environmental Protection Agency, Region 5, Chicago, IL

Environmental Scientist and Clean Water Act Enforcement Officer

2008 - 2010

- Led and assisted on surprise inspections of wastewater treatment plants, sand and gravel manufacturing plants, and industrial farms in the upper Midwest
- Worked on small teams of EPA scientists and Department of Justice attorneys on nine to 15 enforcement cases at a time, including negotiations and litigation actions
- Received Bronze Medal for Exceptional Service, 2009, for developing an algorithm to prioritize industrial farms for Clean Water Act inspections based on fly-over aerial photographs of un-inspected industrial farms across three states

TECHNICAL SKILLS

Computer Languages

MATLAB, some python

Software & Tools

L^AT_EX, some Mayavi, Adobe Illustrator, MS office suite

Operating Systems

macOS, Unix, Windows

HONORS AND FELLOWSHIPS

Department of Defense National Defense Science and Engineering Graduate Fellowship:
tuition and stipend for Sept 2011 - Sept 2014

University of California Regents Graduate Fellowship: tuition and stipend for Sept 2010 - Sept 2011

Honorable mention, National Science Foundation Graduate Research Fellowship Program, 2011

Environmental Protection Agency Bronze Medal for Exceptional Service, 2009

Woods Hole Oceanographic Institution Summer Student Fellowship, 2007

PUBLICATIONS

Masich, J., T. K. Chereskin, and M. R. Mazloff (2015), *Topographic form stress in the Southern Ocean State Estimate*, J. Geophys. Res. Oceans, 120, 79197933, doi:10.1002/2015JC011143.

MANUSCRIPTS IN PREPARATION

Masich, J., M. Mazloff, and T. K. Chereskin. *Interfacial form stress in the Southern Ocean*. In revision, J. Geophys. Res. Oceans.

Masich, J., T. K. Chereskin, and M. Mazloff. *Observational estimates of interfacial form stress in the Drake Passage*. In prep.

PRESENTATIONS

Masich, J., M. R. Mazloff, and T. K. Chereskin. *Interfacial form stress in the Southern Ocean State Estimate*. Poster presentation at the Southern Ocean workshop, Boulder, CO, Apr 2017.

Masich, J., T. K. Chereskin, and M. R. Mazloff. *Momentum balance in the Southern Ocean*. PC14D2091, 2016. Poster presentation at Ocean Sciences Meeting, New Orleans, LA, Feb 2016.

Millar, J. J., T. K. Chereskin, and D. R. Watts. *Four-year observations of interfacial form stress in the northern Drake Passage*. 14505, 2014. Poster presentation at Ocean Sciences Meeting, Honolulu, HI, Feb 2014.

Millar, J. J., T. K. Chereskin, and M. Mazloff. *Exploring the Southern Ocean State Estimate in the Drake Passage: Assimilation and Analysis of an Inverted Echo Sounder Array*. Oral and poster presentation at C-SOBOM NSF Science and Technology Center review Student and Postdoc Symposium, Princeton NJ, Oct 2012.

Millar, J. J., S. T. Gille, J. Sprintall, and M. Frantz. *Assessing XCTD fall-rate errors using concurrent XCTD and CTD profiles in the Southern Ocean*. OS21F-1565, 2010. Poster presentation at American Geophysical Union Fall Meeting, San Francisco CA, Dec 2010.

Millar, J. J. and R. W. Schmitt. *Parameterizing the mixing due to salt fingers*. 873, 2008. Poster presentation at Ocean Sciences Meeting, Orlando FL, Feb 2008.

Millar, J. J., C. Orellana, and N. Mujica. *Experimental characterization of supercritical bifurcation in the presence of noise*. Poster presentation at the Southern Workshop on Granular Materials, Vina del Mar, Chile, 2006.

OTHER INTERESTS

Open-water and U.S. Masters swimming