## Anna C. Savage

Contact

Keck Hall

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RESEARCH Interests Internal gravity waves, internal tides, near inertial waves, ocean mixing, geophysical fluid dynamics, and tidal aliasing in satellite altimetry

EDUCATION

University of Michigan, Ann Arbor, MI

Ph.D., Applied Physics Program, Advisor: Brian Arbic

Thesis: Sea surface height signatures of internal gravity waves 2011-2017

Kalamazoo College, Kalamazoo, MI

B.A., Physics Major with Applied Math and Studio Art Minors

Thesis: Analysis of chaotic network dynamics

to determine the physical connectivity within neuronal networks-honors 2007-2011

Université de Strasbourg, Strasbourg, France

Study Abroad 2009-2010

RESEARCH AND FIELD EXPERIENCE

• Post-doctoral scholar (current)

Co-advised by Jen MacKinnon, Amy Waterhouse, Sam Kelly Scripps Institution of Oceanography, San Diego, CA

2017-present

• NASA Earth and Space Science Fellowship

Graduate research fellow with Brian Arbic University of Michigan, Ann Arbor, MI

2016-2017

**April** 2016

• Inner shelf cruise (R/V Sally Ride): part of

Office of Naval Research Inner Shelf Direct Research Initiative

internal waves, headland eddies, Californian coastal dynamics

September 2017

• Gulf of Mexico Cruise (R/V Pelican): associated with

Consortium for Coastal and River-Dominated Ecosystems (CONCORDE),

river plume surveys, wind-driven mixing, tidal-driven mixing

• Equatorial Pacific Cruise (R/V Oceanus): tropical

instability waves, Equatorial undercurrent, hydrothermic ventilation, Equatorial cold tongue

November 2014

• NSF Research Experience for Undergraduates

Biophysics Department

University of Michigan, Ann Arbor, MI

Summer 2010

## Publications

 Warner, S. J., R. M. Holmes, E. H. M. Hawkins, M. Hoecker-Martinez, A. C. Savage, J. N. Moum (2018) Buoyant gravity currents released from tropical instability waves, Journal of Physical Oceanography, doi:10.1175/JPO-D-17-0144.1.

- Savage, A. C., B. K. Arbic, J. G. Richman, J. F. Shriver, M. H. Alford, M. C. Buijsman, J. T. Farrar, H. Sharma, G. Voet, A. J. Wallcraft, and L. Zamudio (2017), Frequency content of sea surface height variability from internal gravity waves to mesoscale eddies, *J. Geophys. Res. Oceans*, 122, doi:10.1002/2016JC012331.
- Savage, A. C., B. K. Arbic, M. H. Alford, J. K. Ansong, J. T. Farrar, D. Menemenlis, A. K. O'Rourke, J. G. Richman, J. F. Shriver, G. Voet, A. J. Wallcraft, and L. Zamudio (2017), Spectral decomposition of internal gravity wave sea surface height in global models, *J. Geophys. Res. Oceans*, doi:10.1002/2017JC013009.

## POSTERS AND PRESENTATIONS

• Noncoherence of low mode internal tides in the Tasman Sea (invited) AGU Ocean Sciences Meeting, Portland, OR	February 2018
• Sea surface height signatures of internal gravity waves and implications for swath altimetry AGU Ocean Sciences Meeting, Portland, OR	February 2018
• Sea surface signatures of internal gravity waves CASPO Seminar, Scripps Institution of Oceanography, San Diego, CA	March 2017
• Sea surface height variability from internal gravity waves to mesoscale eddies and effects on satellite altimetry. Physical Oceanography Dissertation Symposium, Honolulu, HI	October 2016
• Sea surface height signatures of internal gravity waves POA Seminar, Oregon State University, Corvallis, OR	October 2016
• Internal gravity wave contributions to sea-surface variability. AGU Ocean Sciences Meeting, New Orleans, LA	February 2016
<ul> <li>Wavenumber Spectral Exercises with HYCOM and the SWOT Ocean Simulator.</li> <li>SWOT Science Definition Team Meeting, Toulouse, France</li> </ul>	July 2015
• High Frequency Tests in the Surface Water and Ocean Topography (SWOT) Ocean Simulator. SWOT Science Definition Team Meeting, La Jolla, California	January 2015
<ul> <li>Analysis of tidal aliasing using tide gauges and an eddying global ocean model with embedded tides (poster).</li> <li>AGU Ocean Sciences Meeting, Honolulu, HI</li> </ul>	February 2014
• Comparison of sea surface height in tide gauges and	

## TEACHING AND OUTREACH

• Graduate Student Instructor University of Michigan Physics Department University of Michigan, Ann Arbor, MI

Winter 2016

June 2013

 Organizing committee member APS Conference for Undergraduate Women in Physics University of Michigan, Ann Arbor, MI

high-resolution ocean simulations with embedded tides.

Layered Ocean Model Meeting, Ann Arbor, MI

January 2015

• Lead organizer for Society for Women in Physics Demo Day Slauson Middle School, Ann Arbor, MI

February 2014

• Calculus and physics teaching assistant Mathematics and Physics Departments Kalamazoo College, Kalamazoo, MI

2008-2011

• Student community organizer Vine Neighborhood Association Kalamazoo, MI

Spring 2008