Sudip Majumder

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Research Experience

- **2014 - present :** Postdoctoral Associate, University of Miami, Cooperative Institute for Marine and Atmospheric Studies, NOAA/AOML/Physical Oceanography Division, Miami, FL
- **2009 - 2014:** Graduate Research Assistant; University of Massachusetts, North Dartmouth, MA
- **2007 - 2009:** Graduate Research Assistant; University of Massachusetts, North Dartmouth, MA

Education

- **2014: Ph.D. in Marine Science & Technology**; School for Marine Science and Technology, University of Massachusetts; North Dartmouth, Massachusetts; Supervisor: Amit Tandon
  Thesis : The Importance of Near-Inertial Motions for the Arabian Sea and the South Eastern Pacific
- **2009: M.S. in Physics**; University of Massachusetts; North Dartmouth, MA; Supervisor: Amit Tandon
  Thesis : The Transition Layer Characteristics at the Arabian Sea Mooring
- **2001:** M.Sc in Physics; Vidyasagar University; India
- **1999:** B.Sc in Physics; Vidyasagar University; India

Publications (Published)

- **Majumder, S.**, A. Tandon, D. L. Rudnick, and T. Farrar, 2015: Near-inertial kinetic energy budget of the mixed layer and shear evolution in the transition layer in the Arabian Sea during the monsoons, *J. Geophys. Res. Oceans.* doi:10.1002/2014JC010198
- Weller, R., **S. Majumder**, and A. Tandon, 2014: Diurnal restratification events in the southeast Pacific trade wind regime, *J. Phys. Oceanogr.*, **44**, 2569–2587. http://dx.doi.org/10.1175/JPO-D-14-0026.1.

Publications (Submitted/In preparation)

- **Majumder, S.**, C. Schmid, and G. Halliwell : An observation and model based analysis of meridional transports in the South Atlantic (in prep.).
- Schmid, C., and **S. Majumder** : An observations and model-based analysis of the temporal variability of the Brazil current (in prep.).

- **Majumder, S.**, J. Wang, A. Tandon, and R. Weller : Low frequency SQG dynamics at 20S, 85W (in prep.).

Other Publications

- **Majumder, S., 2014 :** The Importance of Near-Inertial Motions for the Arabian Sea and the South Eastern Pacific ; Ph. D. Dissertation, School for Marine Science and Technology, University of Massachusetts Dartmouth, North Dartmouth, MA.
- **Majumder, S., 2009 :** The Transition Layer Characteristics at the Arabian Sea Mooring ; MS. Thesis, School for Marine Science and Technology, University of Massachusetts Dartmouth, North Dartmouth, MA.

Teaching & Mentoring

- **May 2013 - August 2013:** Mentored Manita Chouksey, a graduate student visiting University of Massachusetts Dartmouth from IIT Bhubaneswar, India; guided her analysis of data from RAMA mooring at 15N in the Bay of Bengal.
- **January 2007 - April 2007:** Teaching Assistant; University of Massachusetts Dartmouth; Courses taught: Oceanography 101, PHY 103, PHY 111, PHY 182; shared responsibilities for exams, homework assignments, and grades; held office hours, led review/discussions
- **March 2004 - December 2006:** High School Physics Teacher; Sauri School; India

Technical Skills

- **Software:** MATLAB, Python, Fortran, C, Ocean Data View, Unix Shell Scripting, MS Office, LaTeX, Windows Applications; Operating Systems: Unix/Linux, Windows
- **Numerical Modeling:** Mixed Layer Modeling, PWP (Price-Weller-Pinkel mixed layer model), GOTM; 3-D Process Study Ocean Modeling
- Data analysis and visualization, expert in time series analysis
- Experience in designing Geophysical Fluid Dynamics experiments using rotating table

Awards

- Graduate Research Assistantship Award (2007-2014): School of Marine Science and Technology and Physics Department, University of Massachusetts Dartmouth
- Best Graduate R.A. (2013, 2014): Physics Department, University of Massachusetts Dartmouth

Workshop Attended

November 16-18, 2011: Bay of Bengal Monsoon Workshop on identifying the key processes in Bay of Bengal influencing Indian Monsoon, Woods Hole Oceanographic Institution, Woods Hole, MA

Conference Presentations

- February, 2014, AGU Ocean Sciences, Honolulu, Hawaii: *Diurnal Restratification Events and Near Inertial Mixing in the Subtropical Southeastern Pacific. (Poster)*
- April, 2013, University of Massachusetts Dartmouth, North Dartmouth, MA: *Eddy Generated Mixing in the Subtropical Southeastern Pacific. (Poster)*
- February, 2012, AGU Ocean Sciences, Salt Lake City, Utah: *Near-Inertial Kinetic Energy Distribution at the Arabian Sea Mooring. (Poster)*
- January, 2012, University of Massachusetts Boston, Boston, MA: *Near-Inertial Wind Work at the Upper Ocean. (Presentation)*
- June, 2011, IIT, Kharagpur, India: *Transition Layer Dynamics and the Near-Inertial Kinetic Energy Budget in the Upper Ocean. (Presentation)*
- April, 2011, SMS Colloquium, University of Massachusetts Lowell, MA: *Near-Inertial Kinetic Energy Propagation in the Upper Ocean. (Presentation)*
- September, 2010, University of Washington, Seattle, Washington, Physical Oceanography Student Meet: *Near-Inertial Transition Layer Dynamics at the Arabian Sea Mooring. (Presentation)*
- February, 2010, AGU Ocean Sciences, Portland, Oregon: *Hourly to Weekly Transition Layer Variations at the Arabian Sea Mooring. (Poster)*
- June, 2009, GRC (Coastal Ocean Circulation), Colby-Sawyer College, New London, NH: *Transition Layer Characteristics at the Arabian Sea Mooring. (Poster)*
- December, 2008, AGU Fall Meeting, San Francisco, California: *Probability density distributions and event based analyses of transition layers from Arabian Sea and Marine-Light Mixed Layer Moorings. (Poster)*

Field Experience

- 2009: Participated in oceanographic field experiments in Buzzards Bay; 2 days at sea. Responsibility included: Operations of ADCP and CTD, data processing
- 2010: River plume experiment in Merrimack river, Newburyport, MA; Dan McDonald (SMAST, UMASSD), Chief Scientist; 5 days at sea. Deployed and collected drifters, analysis of drifter trajectories

Educational Outreach

- Demonstrated Geophysical Fluid experiments using rotating table at Waterfront Festivals, MA, New Bedford, 2009, 2010, 2011, 2013.
- Demonstrated dye steering rotating table experiments at High School Marine Science Symposium, 2011, Dartmouth, MA.

Professional Affiliations

Member, American Geophysical Union (AGU); Member, American Physical Society (APS)