

C U R R I C U L U M V I T A E

Sheekela Baker-Yeboah
Department of Earth,
Atmospheric, and Planetary Sciences
MIT 54-1415, 77 Massachusetts Avenue
Cambridge, Massachusetts 02139-4307 USA
Phone: (617) 324-1568 Email: sbaker@mit.edu

E d u c a t i o n

- 2002 - 2008 Ph.D. in Oceanography
University of Rhode Island, Graduate School of Oceanography
Dissertation: Sea Surface Height Variability and the
Structure of Eddies in the South Atlantic Cape Basin
- 1993 - 1998 M. S. in Marine Science
University of Southern Mississippi, Stennis Space Center
Thesis: Double Vortices In The Ocean:
A Case Study In The Arabian Sea
- 1989 - 1993 B. S. in Mathematics University of Southern Mississippi

E m p l o y m e n t

- Post-Doctoral **Post-Doctoral Associate in Physical Oceanography**
Associate Massachusetts Institute of Technology
2008 - Current Dynamical processes of upper and deep ocean vortices;
Interocean exchanges in the southeastern South Atlantic;
Analytical/numerical simulations and data assimilation
- Remote Sensing **Research Associate in Physical Oceanography**
Oceanography University of Rhode Island
1998 - 2002 Liaison between URI and NOAA National Marine Fisheries;
Processing and analysis of AVHRR data;
Distributed Oceanographic Data System
- 1994 - 1998 Research Assistant in Physical Oceanography
(Summers) University of Southern Mississippi

S e a G o i n g E x p e r i e n c e

S. Baker-Yeboah 2

- 2005 Research Cruise in the South Atlantic aboard the RRS Discovery
- 2003 Research Cruise in the South Atlantic aboard the R/V Melville
- 1994 Research expedition in the Gulf of Mexico aboard the R/V Pelican
- 1993 Research Cruise in the Mediterranean Sea aboard the R/V Alliance

T e a c h i n g E x p e r i e n c e

- 2008 GFD Lab Assistant on Potential Vorticity; MIT
Co-lecturer on Abyssal Circulation and Eddies; MIT
- 2006 Instructor; OCG 110: The Ocean Planet; University of Rhode Island
- 2006 Preparing for an Academic Career in the Geosciences:
Workshop for Graduate Students and Post-Doctoral Fellows,
Stanford University
- 2004 Teaching Assistant; OCG 501: Physical Oceanography;
University of Rhode Island

I n t e r n a t i o n a l E x p e r i e n c e

- 2005 Geophysical Fluid Dynamics Summer School, Cambridge England, UK
- 1994 SACLANT Undersea Research Centre Summer Program, La Spezia, Italy

P r o f e s s i o n a l E x p e r i e n c e A n d H o n o r s

Professional Presentations

- 2009 Invited Seminar Speaker at MOCA09: IAMAS IAPSO IACS Meeting in Montreal, CA
- 2009 SW Indian Ocean Workshop Seminar Speaker
- 2008 IAPSO-DOES Poster
- 2006 American Geophysical Union Poster
- 2006 Invited Seminar Speaker at AOML in Miami, Florida
- 1996 American Geophysical Union Presenter

Professional Societies

2008 - Current Sigma Xi
2006 - Current American Association for the Advancement of Science
2005 - Current American Geophysical Union
1995 - 1997 The Oceanography Society
1994 - 1997 Mississippi Academy of Sciences
1993 - 1998 Student Oceanography Society Club

Professional Awards

October 2005
Awarded 3rd place prize for research poster University of Rhode Island
March 1997
Awarded an honorable mention for section C: Currents, Waves & Nearshore Processes Fourth International Conference Remote Sensing of Marine and Coastal Environments

Funded Proposals

January 2008
NSF funded proposal to investigate coupling between the upper and deep ocean due to lateral and vertical eddy-eddy interactions of cyclonic and anticyclonic eddies in the South Atlantic, which may aid in the ventilation of the thermocline.

Academic Service

2009 - 2010 Oceanography/Climate Seminar Coordinator
2006 - 2007 Physical Oceanography Seminar Coordinator
2006 - 2007 Student Admissions and Review Committee
2005 - 2006 Educational Policy Committee

A b s t r a c t s

Baker-Yeboah, S., D. R. Watts, D. Byrne, and N. R. Pettigrew. Deep Pressure Signals and Eddies in the South Atlantic Cape Basin Measured During ASTTEX. *Eos, Transactions, American Geophysical Union*, Vol. 87 (OS25E-13). AGU Spring Meeting, February 20-24, 2006, Honolulu, Hawaii.

Baker, S., R. Arnone, and D. Sheres. Characteristics of Double Vortices in the Northwestern Arabian Sea and the North Atlantic Gulf Stream Region. *Eos, Transactions, American Geophysical Union*, Vol. 77 (OS72C-15). AGU Fall Meeting, December 15-19, 1996, San Francisco, California.

P u b l i c a t i o n s

Baker-Yeboah, S., G. R. Flierl, and D. R. Watts. Dipoles and the Propagation of Agulhas Eddies: the Effects of Laterally and Vertically Coupled Vortices, submitted, 2010.

Baker-Yeboah, S., D. A. Byrne, and D. R. Watts. Observations of Mesoscale Eddies in the South Atlantic Cape Basin: Baroclinic and Deep Barotropic Eddy Variability, *J. Geophys. Res.*, submitted, 2010.

Baker-Yeboah, S., D. R. Watts, D. A. Byrne, and D. Witter. A Comparative Study of Satellite Altimeter and Pressure-Sensor Equipped Inverted Echo Sounder Sea Surface Height Variability in the Southeast Atlantic, *J. Geophys. Res.*, in revision, 2010.

Baker-Yeboah, S., G. R. Flierl, G. G. Sutyrin, and Y. Zhang. Transformation of an Agulhas Eddy Near the Continental Slope. *Ocean Sci.*, 6, 143-159, 2010.

Baker-Yeboah, S., D. R. Watts, and D. A. Byrne. Baroclinic and Barotropic Sea Surface Height Variability in the Southeast Atlantic from Pressure-Sensor Equipped Inverted Echo Sounders. *J. Atmos. Oceanic Technol.*, 26, 2593-2609, 2009.

Baker-Yeboah, S., 2008: Sea Surface Height Variability and the Structure of Eddies in the South Atlantic Cape Basin. Ph.D. Dissertation, University of Rhode Island, Narragansett 308 pp.

Waring, G. T. , T. Hamazaki, D. Sheehan, G. Wood, S. Baker. Characterization Of Beaked Whale (Ziphiidae) And Sperm Whale (Physeter Macrocephalus) Summer Habitat in Shelf-Edge and Deeper Waters off the Northeast U. S. *Marine Mammal Science*.Vol. 17 Issue 4, 703 -717. October 2001.

Baker, S., D. Sheres, and R. Arnone. Characteristics of double vortices in the Northwestern Arabian Sea and the North Atlantic Gulf Stream region as observed by AVHRR imagery. *Ocean Technology*. Stennis Space Center, Proceedings of the Gulf Coast Section Marine Technology Society. Navel Oceanographic Office, Stennis Space Center, Mississippi (1997): 32-39.

R e f e r e n c e s

Available upon request.