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Personal Information:

Date of Birth: 13 February, 1975

Place of Birth: Vitoria-Gasteiz, Spain

Education:

Ph.D.: 2005 Marine Sciences (Physical Oceanography), University of North Carolina at Chapel Hill

B.S.: 1998 Marine Sciences, Universidad de Las Palmas de Gran Canaria

Employment:

2009- Guest investigator, PO, Woods Hole Oceanographic Institution

2010- Scientific Programmer, Contractor, USGS Woods Hole

2009- Post-doctoral Juan de la Cierva Investigator, Institut de Ciencies del Mar, CSIC, Barcelona

2007-2008 Guest investigator, AOPE, Woods Hole Oceanographic Institution

2007-2009 Post-doctoral I3P Investigator, Institut de Ciencies del Mar, CSIC, Barcelona

2006-2007 Post-doctoral Investigator, AOPE, Woods Hole Oceanographic Institution

2005-2006 Post-doctoral Fellow, Department of Marine Sciences, UNC-CH

2000-2005 Research Assistant, Department of Marine Sciences, UNC-CH

1998-2000 Teaching Assistant, Department of Marine Sciences, UNC-CH

Refereed Articles:

Aretxabaleta et al. (2009)
Aretxabaleta, A. L., D. J. McGillicuddy Jr., K. W. Smith, J. P. Manning and D. R. Lynch, Model Simulations of the Bay of Fundy Gyre: 2. Hindcasts for 2005-2007 Reveal Interannual Variability in Retentiveness, *J. Geophys. Res.*, *114* (C09005), doi:10.1029/2008JC004948, 2009.

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Aretxabaleta et al. (2007)
Aretxabaleta, A. L., B. O. Blanton, F. E. Werner, E. P. Chassignet, H. E. Seim, and J. R. Nelson, Cold Event in the South Atlantic Bight During Summer of 2003: Model Simulations and Implications, *J. Geophys. Res.*, *112* (C05022), doi:10.1029/2006JC003903, 2007.

Smith and Aretxabaleta (2007)
Smith, K. W. and A. L. Aretxabaleta, Expectation-Maximization Analysis of Spatial Time Series, *Nonlinear Processes in Geophysics*, *14*, 73-77, 2007.

Aretxabaleta et al. (2006)
Aretxabaleta, A. L., J. R. Nelson, J. O. Blanton, H. E. Seim, F. E. Werner, J. M. Bane, and R. Weisberg, Cold Event in the South Atlantic Bight During Summer of 2003: Anomalous Hydrographic and Atmospheric Conditions, *J. Geophys. Res.*,*111*(C06007), doi:10.1029/2005JC003105, 2006.

Morales-Zarate et al. (2006)
Morales-Zarate, M. V., A. L. Aretxabaleta, F. E. Werner and S. E. Lluch-Cota, Modeling winter circulation and particle retention in the Bahia Magdalena-Almejas lagoon system (Baja California Sur, Mexico), *Ciencias Marinas*, *32* (4), 631-647, 2006.

Lough et al. (2006)
Lough, R. G., E. A. Broughton, L. J. Buckley, L. S. Incze, K. P. Edwards, R. Converse, A. L. Aretxabaleta, and F. E. Werner, Modelling growth of Atlantic cod larvae on the southern flank of Georges Bank in the tidal-front circulation during May 1999, *Deep-Sea Res. II*, *53*, 2771-2788, 2006.

Aretxabaleta et al. (2005)
Aretxabaleta, A. L., J. Manning, F. E. Werner, K. Smith, B. Blanton, and D. R. Lynch, Data Assimilative Hindcasting on the Southern Flank of Georges Bank during May 1999: Frontal Circulation and Implications, *Cont. Shelf Res.*, *25* (7/8), 849-874, 2005.

Blanton et al. (2003)
Blanton, B. O., A. L. Aretxabaleta, F. Werner, and H. Seim, Monthly climatology of the continental shelf waters of the South Atlantic Bight, *J. Geophys. Res.*, *108*(C8), 3264, doi:10.1029/2002JC001609, 2003.

Dissertation:

Baroclinic Processes in Coastal Oceans: Observations and Modeling on Georges Bank and the South Atlantic Bight Continental Shelf (2005). UNC-CH, pp. 167.

Manuscripts in Revision:

Aretxabaleta et al.
Aretxabaleta, A., K. W. Smith, D. J. McGillicuddy Jr., J. Ballabrera-Poy, Model Initialization in a Tidally Energetic Regime: a Dynamically Adjusted Objective Analysis, Ocean Modelling, 10.1016/j.ocemod.2011.01.001, Accepted

Aretxabaleta and Smith
Aretxabaleta, A., K. W. Smith, Analyzing state dependent model-data comparison in multi-regime systems, Computational Geosciences, Revised

Mourre et al.
Mourre, B., J. Ballabrera-Poy, A. Aretxabaleta, J. Gourrion, A. Turiel, Ocean model assessment from the perspective of geophysical turbulence, GRL, Submitted

Manuscripts in Preparation:

Aretxabaleta et al.
Aretxabaleta, A., J. Gourrion, J. Ballabrera-Poy, B. Mourre and J. Font, Global Surface Salinity Variability: 2. Modal Characterization, in prep

Lough and Aretxabaleta

Lough, R. G., A. Aretxabaleta, Modeling the diel vertical migration in the tidal front on the Southern Flank of Georges Bank as exemplified by the Mysid *Neomysis americana* and the Decapod *Crangon septemspinosus*, in prep

Aretxabaleta and Smith

Aretxabaleta, A., K. W. Smith, Multi-regime non-Gaussian gap filling of satellite data, in prep

Gourrion et al.

Gourrion, J., A. Aretxabaleta, J. Ballabrera-Poy, B. Mourre and J. Font, Global Surface Salinity Variability: 1. Seasonal cycle and recent interannual modications, in prep

Pelegri et al. (a)

Pelegri, J. L., A. Aretxabaleta and F. J. Machin, Slope control on eastern boundary upwelling currents, in prep

Pelegri et al. (b)

Pelegri, J. L., A. Aretxabaleta, F. J. Machin and M. Gasser, Intermittent vertical mixing in the Strait of Gibraltar, in prep

Conference Proceedings:

Aretxabaleta et al. (2010)

Aretxabaleta, A. L., J. Gourrion, J. Ballabrera, A. Turiel, J. Font and R. W. Schmitt. Bridging the gap between surface salinity satellites: SMOS and Aquarius. *ESA Living Planet Symposium*, Bergen, Norway, 2010.

Sabia et al. (2010)

Sabia, R., J. Gourrion, M. Portabella, C. Gabarro, M. Talone, J. Ballabrera, A. Turiel, J. Martinez, A. Camps, A. L. Aretxabaleta, A. Monerris, J. Font. SMOS Measurements Preliminary Validation Against Modeled Brightness Temperatures and External-Source Salinity Data. *Proceedings of the 2010 IEEE International Geoscience and Remote Sensing Symposium*, 3166-3169, 2010.

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Gourrion, J., J. Ballabrera, A. L. Aretxabaleta, A. Turiel, B. Mourre, S. Kalaroni, N. Hoareau. Preliminary Validation of SMOS Products (Levels 3 and 4) *Proceedings of the 2010 IEEE International Geoscience and Remote Sensing Symposium*, 3170-3173, 2010.

Sabia et al. (2010b)

Sabia, R., J. Gourrion, C. Gabarro, M. Talone, M. Portabella, J. Ballabrera, A. L. Aretxabaleta, A. Camps, A. Monerris, J. Font. Preliminary Cross-Validation of the SMOS Measurements against Modeled Brightness Temperatures and External Salinity Data. *ESA Living Planet Symposium*, Bergen, Norway, 2010.

Konstantinidou et al., (2010)

Konstantinidou, A., A. L. Aretxabaleta, J. Gourrion. Uncertainties on the Global Near-Surface Vertical Structure of Salinity. *ESA Living Planet Symposium*, Bergen, Norway, 2010.

Ballabrera et al. (2010)

Ballabrera, J., J. Gourrion, A. Turiel, A. L. Aretxabaleta, B. Mourre, S. Kalaroni, N. Hoareau. Preliminary Validation of SMOS Products (Levels 3 and 4) *ESA Living Planet Symposium*, Bergen, Norway, 2010.

Sabia et al. (2010c)
Sabia, R., J. Gourrion, C. Gabarro, M. Talone, J. Ballabrera, J. Font, A. L. Aretxabaleta, SMOS Mission Salinity Retrieval: Post-Launch First Assessment. *IEEE GOLD Congress*, 2010.

Conference Presentations:

Emelianov et al. (2010)
Emelianov, M., J. Gourrion, A. L. Aretxabaleta, A. Konstantinidou, M. Rosell, J. Martinez, F. Perez, J. Salvador, P. Fernandez, J. Ballabrera-Poy. A match-up database for satellite-borne ocean salinity validation. European Geosciences Union General Assembly, Vienna (Austria), May 2010.

Aretxabaleta et al. (2009)
Aretxabaleta, A. L., J. Gourrion, J. Ballabrera, B. Mourre and J. Font, Global Surface Salinity Variability: Modal Characterization. *Geophysical Research Abstracts*, *11*, EGU2009-10348, 2009.

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Gourrion, J., A. L. Aretxabaleta, J. Ballabrera, B. Mourre and J. Font, Statistical Characterization of Global Sea Surface Salinity for SMOS Level 3 Products *Geophysical Research Abstracts*, *11*, EGU2009-10481, 2009.

Gourrion et al. (2009a)
Gourrion, J., B. Mourre, A. L. Aretxabaleta, J. Ballabrera and A. Turiel, Preparing Levels 3 and 4 for the SMOS mission. *Third International Workshop on Marine Technology, MARTECH*, 2009.

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Aretxabaleta, A. L., J. Gourrion, J. Ballabrera, B. Mourre and J. Font, Surface temperature-salinity relationship in the context of the SMOS satellite mission. *GODAE Final Symposium*, Nice, France, 2008.

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Shay et al. (2006)
Shay, T. J., F. E. Werner, A. L. Aretxabaleta and B. O. Blanton, HYCOM/Quoddy Nested Baroclinic Nowcast/Forecast System for the South Atlantic Bight. *10th HYCOM Consortium Meeting*, Tallahassee, FL, 2006.

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Aretxabaleta, A. L., J. R. Nelson, H. E. Seim, B. O. Blanton, F. E. Werner, and E. P. Chassignet, Cold Event in the South Atlantic Bight During Summer of 2003: Model simulations and implications. *EOS, Trans. Am. Geophys. Union*, Ocean Sci. Meet. Suppl., *87*, OS36J-07, 2006.

Book Chapter:

Werner et al. (2004)
Werner, F. E., A. Aretxabaleta, and K. P. Edwards, Modelling marine ecosystems and their environmental forcing, in *Marine Ecosystems and Climate Variation*, edited by N. C. Stenseth, G. Ottersen, J. W. Hurrell and A. Belgrano, pp. 33–45, Oxford University Press, 2004.

Funded Proposals:

Spanish National Research Program: *Model Characterization of North and Equatorial Atlantic Variability using SMOS Salinity Measurements: Implications for the Meridional Overturning Circulation*. 2009-2012

Spanish National Research Program: *Calibration and validation of the surface salinity measurements of the SMOS mission using hybrid models in the eastern North Atlantic subtropical gyre*. 2006-2009

Projects:

MIDAS-6. Ocean Salinity and Soil Moisture Products from SMOS: Improvements and Applications. (2011-2013).

MIDAS-5. Products validation, data exploitation and Expert Centre for the SMOS mission. (2007-2010).

MIDAS-4. SMOS mission's MIRAS radiometer measurements: calibration and generation of ocean salinity and soil moisture maps. (2005-2008).

GOMTOX: Dynamics of Alexandrium fundyense Distributions in the Gulf of Maine: An Observational and Modeling Study of Nearshore and Offshore Shellfish Toxicity, Vertical Toxin Flux and Bloom dynamics in a complex shelf sea. (2006-2007).

SouthEast U.S. Atlantic Coastal Ocean Observing System. (2001-2006).

Limited-Area Operational Coastal Ocean Models: Assimilation of Observations from Fixed Platforms on the Continental Shelf and Far-field Forcing from Open Ocean Models. (2000-2003).

US-GLOBEC: *Real-Time Data Assimilation on Georges Bank*. (1997-2002).

Field Experience:

2006 Gulf of Maine Harmful Algal Bloom - *R/V Oceanus 425* - June 2006

Massachusetts Bay Harmful Algal Bloom - *R/V Tioga 184-185-191* - May-June 2006

Filaments in the North African Upwelling System - *R/V Hesperides* - September 1997

Transect Lisbon-Madeira-Las Palmas - March and June 1997

Other Merits and Awards:

Spanish National Award for Undergraduate Degree 1998 (Premio National de Fin de Carrera de Educacion Universitaria). 2nd prize.

Reviewer for journals: Progress of Oceanography, Continental Shelf Research, Estuarine, Coastal and Shelf Science, Ciencias Marinas, Computational Geosciences, J. of Marine Systems, and Journal of Geophysical Research - Oceans.

Reviewer and content editor for the Physical Oceanography Volume of the Project Earth Science series for the National Science Teachers Association.

Member of American Geophysical Union, European Geoscience Union, American Society of Limnology and Oceanography, and Society of Industrial and Applied Mathematics.