

## **Gustavo Jorge Goni**

United States Department of Commerce  
National Oceanic and Atmospheric Administration  
Atlantic Oceanographic and Meteorological Laboratory  
Physical Oceanography Division  
4301 Rickenbacker Causeway  
Miami, Florida 33149  
goni@aoml.noaa.gov  
(305) 361-4339 (voice)  
(305) 361-4412 (Fax)

### **Education**

Ph.D. in Applied Marine Physics/Ocean Engineering, May 1991.  
The University of Miami, Coral Gables, FL, USA.  
Dissertation title: *Ray and wave chaos in underwater acoustics.*

M.S. in Acoustics, January 1996.  
The Pennsylvania State University, State College, PA, USA.  
Thesis title: *Effect of the Biot's slow compressional wave on the normal mode attenuation coefficient for shallow water sound propagation.*

B.S (Lic). in Physical Oceanography/Ocean Engineering, May 1982.  
Buenos Aires Institute of Technology (Instituto Tecnológico de Buenos Aires).

### **Experience**

Oceanographer. November 1997 - Present  
United States Department of Commerce, National Oceanic and Atmospheric Administration, Atlantic Oceanographic and Meteorological Laboratory, Miami, FL, USA.

Adjunct Assistant Professor. June 1999 – Present.  
The University of Miami, Rosenstiel School of Marine and Atmospheric Science, Coral Gables, FL, USA.

Senior Research Associate. June 1991 - October 1997.  
The University of Miami, Rosenstiel School of Marine and Atmospheric Science, Coral Gables, FL, USA.

Research Assistant, August 1981 - August 1983.  
Naval Hydrographic Service, Buenos Aires, Argentina.

## **Awards**

2002 NOAA Outstanding Scientific Publication Award.

1988 Rotary Club Award, Key Biscayne (FL, USA) Rotary Club.

1983 and 1984 BEGES Fellowship from the Organization of American States (OAS), Washington, D.C. USA.

1982 silver medal for outstanding fellowship at the Buenos Aires Institute of Technology.

## **Publications**

Synoptic Study of North Brazil Current Rings Using Altimetry Data. G. Goni and W. Johns, to *Interhemispheric Water Exchange in the Atlantic Ocean, Elsevier Oceanographic Series, 68*, 335-356, Elsevier Science, 2003.

North Brazil Current rings and transport of southern waters in a high resolution numerical simulation of the North Atlantic. Z. Garraffo, W. Johns, E. Chassignet and G. Goni, *Interhemispheric Water Exchange in the Atlantic Ocean, Elsevier Oceanographic Series, 68*, 375-410, Elsevier Science, 2003.

Comparison of Hydrographic and Altimetric Estimates of Sea Level Height Variability in the Atlantic Ocean, D. Mayer, M. Baringer, and G. Goni, *Interhemispheric Water Exchange in the Atlantic Ocean, Elsevier Oceanographic Series, 68*, 23-48, Elsevier Science, 2003.

Planetary equatorial trapped waves in the Atlantic Ocean from TOPEX/POSEIDON altimetry, C. Franca, I. Wainer, A. Mesquita and G. Goni, *Interhemispheric Water Exchange in the Atlantic Ocean, Elsevier Oceanographic Series, 68*, 213-232, Elsevier Science, 2003.

Cross-gyre Water Mass Transport by North Brazil Current Rings, W. Johns, R. Zantopp and G. Goni, to *Interhemispheric Water Exchange in the Atlantic Ocean, Elsevier Oceanographic Series, 68*, 411-442, Elsevier Science, 2003.

Implementacion de un Sistema Multiescala para la Distribucion de datos Medioambientales, en *Teledeteccion de Pesquerias y Prediccion de Mareas Toxicas*, 191pp., F. Pose (Ed.), by Instituto Universitario de Estudios Maritimos, Spain, December 2002.

Ocean Surface Currents in the Tropical Atlantic Across High Density Line AX08, G. Goni and M. Baringer, *Geophys. Res. Let.*, December 27, 2002.

Use of Satellite Altimetry to Identify Regions of Hurricane Intensification, G. Goni, P. Black, J. Cione and L. Shay, *Remote Sensing for Marine and Coastal Environments*, pp1-4, 2002.

Investigation of the Brazil Current Front Dynamics from Altimeter Data. G. Goni and I. Wainer, *J. Geophys. Res.*, 36, 31,117-31,128, 2001.

Transition regions and their role in the relationship between sea surface height and subsurface temperature structure in the Atlantic Ocean. D. Mayer, R. Molinari, M. Baringer and G. Goni, *Geophys. Res. Let.*, 28, 3943-3946, 2001.

Identification of the Kuroshio Extension and its Northern Branch from Altimeter and Hydrographic Data During November 1992 - August 1999: Mesoscale Dynamics and Variability. *Geophys. Res. Let.*, 28, 1759-1762, S. Sainz-Trapaga, G. Goni, T. Sugimoto, 2001.

Census of Warm Rings and Eddies in the North Brazil Current Retroflexion Region from 1992 through 1998 Using TOPEX/POSEIDON Altimeter Data. *Geophys. Res. Let.*, G. Goni and W. Johns, 28, 1-4, 2001.

The Annual Cycle of the Brazil-Malvinas Confluence Region in the NCAR Climate System Model. Wainer, I., P. Gent and G. Goni, *J. Geophys. Res.*, 105, 26167-26177, 2000.

Low-salinity Lenses at Barbados, West Indies: Their Origin, Frequency and Variability. P. Kelly, K. Lwiza, R. Cowen and G. Goni, *J. Geophys. Res.*, 105, 19699-19708, 2000.

Combining Altimeter Observations and Oceanographic Data for Ocean Circulation and Climate Studies. S. Garzoli and G. Goni. *Satellites, Oceanography and Society*, D. Halpern (editor). Elsevier Oceanographic Series, 63, 79-95, 2000.

Effects of Warm Oceanic Features on Hurricane Opal. L. Shay, G. Goni and P. Black, *Mon. Weath. Rev.*, 128, 131-148, 2000.

Three Agulhas Rings Observed During the Benguela Current Experiment. S. Garzoli, P. Richardson, C. Duncombe Rae, D. Fratantoni, G. Goni and A. Roubicek. *J. Geophys. Res.*, 104, 20971-20985, 1999.

Transport Estimates of the Kuroshio Current from Satellite Altimeter Data, in *Ecosystem Dynamics of the Kuroshio-Oyashio Transition Region*. G. Goni, Terazaki, Ohtani, Sugimoto and Watanabe (Editors), Published by the Japan Marine Science Foundation, 1-8, 1999.

Role of Warm Ocean Features on Intensity Change: Hurricane Opal. Shay, L.K., G. J. Goni, F.D. Marks, J.J. Cione and P.G. Black, in *Symposium on Tropical Cyclones*, American Meteorological Society, 131-138, 1998.

Agulhas Rings Dynamics from TOPEX/POSEIDON Satellite Altimeter Data. G. Goni, S. Garzoli, A. Roubicek, D. Olson and O. Brown. *J. Mar. Res.* , 55, 861-883, 1997.

Monitoring the Upper Southeastern Atlantic Transports Using Altimeter data. S. Garzoli, G. Goni, A. Mariano and D. Olson, *J. Mar. Res.* , 55, 453-481, 1997.

Dynamics of the Brazil-Malvinas Confluence Based on Inverted Echo Sounders and Altimetry. G. Goni, S. Kamholz, S. Garzoli and D. Olson, *J. Geophys. Res.*, 101, 16273-16289, 1996.

Mesoscale Ocean Variability Signal from GEOSAT Altimeter Data in the SW Atlantic Ocean: A Comparison of Three Different Data Sets. G. Goni, G. Podesta, O. Brown and J. Brown, *Bolm Inst. Oceanogr.*, Sao Paulo, 43, 101-110, 1995.

An Investigation of Sound Ray Dynamics in the Ocean Volume Using an Area Preserving Mapping. F. Tappert, G. Goni and M. Brown, *Journal of Wave Motion*, 14, 93-99, 1992.

Weak Chaos in an Area-Preserving Mapping for Sound Ray Propagation. *Physics Letters*. F. Tappert, M. Brown and G. Goni, 153, 181-185, 1991.

Chaos in Underwater Acoustics, in *Ocean Variability and Acoustic Propagation*. F. Tappert, M. Brown and G. Goni, J. Potter and A. Warn-Varnas (eds.), Kluwer Academic Publishers, The Netherlands, 139-160, 1991

Weak Chaos in an Area-Preserving Mapping for Sound Ray Propagation. *Physics Letters*, F. Tappert, M. Brown and G. Goni, 153,181-185, 1991.

Surface Mixed Layer and Temperature and Layer Depth in Waters off the Argentinian Coast. S. Blanc, J. Novarini and G. Goni, *J. Geophys. Res.*, 88, 5987-5996, 1983.

## **Editorial**

*Interhemispheric Water Exchange in the Atlantic Ocean*, Elsevier Oceanographic Series. **68**, G. Goni and P. Malanotte-Rizzoli, Editors, Elsevier Science, 2003.

## **Proceedings and Newsletters**

A Web-Based Interface for Near-Real Time Geostrophic Currents Using Altimetry, J. Trinanés, G. Goni and R. Cheney, *NASA/CNES AVISO Altimetry*, July 2003

Use of Satellite Altimetry to Identify Regions of Hurricane Intensification, G. Goni, P. Black, and J. Trinanés, to *NASA/CNES AVISO Altimetry*, July 2003.

NOAA/AOML Observational Programs in the Atlantic, S. Garzoli, M. Baringer, G. Goni, R. Molinari and D. Wilson, Proceedings of the U.S. CLIVAR Conference, 12-14 June, Boulder, Colorado, p.3-4, 2002.

Benchmarks for Atlantic Ocean Circulation, S. Garzoli, R. Lusic, R. Molinari, M. Baringer, G. Goni, CLIVAR Exchanges, Number 25 (Vol7, No.3-4, 2003).

## **Technical Reports**

CTD/O<sub>2</sub>, LADCP and XBT Measurements Collected Aboard the R/V Seaward Johnson, February-March 2000: North Brazil Current Rings Experiment Cruise 1 (NBC-1). C. Fleurant, D. Wilson, W. Johns, S. Garzoli, R. Smith, D. Fratantoni, P. Richardson and G. Goni. NOAA Data Report OAR AOML-38, 251pp, 2000.

CTD/O<sub>2</sub>, LADCP and XBT Measurements Collected Aboard the R/V Seaward Johnson, February-March 1999: North Brazil Current Rings Experiment Cruise 1 (NBC-1). C. Fleurant, D. Wilson, W. Johns, S. Garzoli, R. Smith, D. Fratantoni, P. Richardson and G. Goni. NOAA Data Report OAR AOML-37, 291pp, 2000.

CTD/O<sub>2</sub>, LADCP and XBT Measurements Collected Aboard the R/V Seaward Johnson, November-December 1998: North Brazil Current Rings Experiment Cruise 1 (NBC-1). C. Fleurant, D. Wilson, W. Johns, S. Garzoli, R. Smith, D. Fratantoni, P. Richardson and G. Goni. NOAA Data Report OAR AOML-35, 257pp, 1999.

Numerical Experiments in the Standard Mapping. F. Tappert, M. Brown, G. Goni, RSMAS TR-89-005, 1989.

## **Invited Conferences, talks**

Applications of Satellite Altimetry. GLOSS training course, Valparaiso, Chile, April 2003.

Near-real time altimeter-derived estimates of hurricane heat potential, by G. Goni, P. Black, J. Cione, M. Mainelli, J. Trinanes. 2001 AGU Fall, San Francisco, December 2001.

Rings of the North Brazil Current from Altimetry., by G. Goni. SUNY Stony Brook, November 2000.

Transport Estimates of the Kuroshio Extension Current from Altimetry Data, by G. Goni University of Tokyo, October 1998.

Use of Altimetry for Ocean Dynamics Studies, by G. Goni. University of Santiago de Compostela, Galicia, Spain, March 1998.

Uses of GEOSAT Altimetry to Study Western Boundary Currents, by G. Goni. Third Symposium on Ocean Sciences, Puerto Madryn, Argentina, September 1993.

Chaos in Underwater Acoustic, by G. Goni. Second Symposium on Ocean Sciences, Puerto Madryn, Argentina, October 1992.

Chaos: Principles and Applications to the Study of Marine Science, by G. Goni. Second Symposium on Ocean Sciences, Puerto Madryn, Argentina, October 1992.

## **Committees**

The Global Observing System, Pierre-Yves LeTraon, G. Goni, W. Nowlin and H. Plag, conveners, 2003 IAPSO Meeting, Sapporo, Japan, September 2003.

Seventh International Conference - Remote Sensing for Marine and Coastal Environments, Miami, FL, May 2002, Member of the Organizing Committee.

IAPSO 2001 Meeting, Mar del Plata, Argentina. Interhemispheric Water Exchange in the Atlantic Ocean, Convener

## **Selected Abstracts and Conferences**

NBC Rings from Altimetry, G. Goni, IUGG Meeting, Sapporo, Japan, July 2003.

Surface Zonal Currents in the Tropical Atlantic from High Density XBT Line AX08, G. Goni, M. Baringer, S. Garzoli and C. Schmid, IUGG Meeting, Sapporo, Japan, July 2003.

Use of Satellite Altimetry to Identify Regions of Hurricane Intensification. G. Goni, 7th International Conference on Marine and Coastal Environments, Miami, FL, June 2002.

A census of North Brazil current rings observed from Topex/Poseidon altimetry: 1992-1999. G. Goni and W. Johns, IAPSO 2001 Meeting, Mar del Plata, Argentina.

Investigation of the Brazil Current front from altimeter data. G. Goni and I. Wainer, IAPSO 2001 Meeting, Mar del Plata, Argentina.

Comparison of Hydrographic and Altimetric Estimates of Sea Level Height Variability in the Atlantic Ocean. D. Mayer, M. Baringer, R. Molinari and G. Goni. 2000 AGU Meeting, San Francisco, December 2000.

Virtual Poster Session on western boundary currents (<http://www.po.gso.uri.edu/wbc/>). S. Sainz-Trapaga, G. Goni and T. Sugimoto, November 2000.

Transport Estimates and Variability of the Kuroshio Extension Current from Satellite Altimetry Data. G. Goni, S. Sainz-Trapaga, and T. Sugimoto. 2000 Western Pacific Geophysics Meeting, Tokyo, Japan, June 2000.

Identification and Variability of the Kuroshio Extension and its Northern Branch from Altimeter and Hydrographic Data During October 1992 - November 1999. S. Sainz-Trapaga, G. Goni, and T. Sugimoto. 2000 Western Pacific Geophysics Meeting, Tokyo, Japan, June 2000.

Role of the Upper Ocean Structure on the Intensification of Hurricane Bret from Satellite Altimetry. G. Goni, L. Shay, P. Black, M. Huber, S. Jacob, T. Cook and J. Cione. 24th Conference on Hurricanes and Tropical Meteorology, Fort Lauderdale, May-June 2000.

Global Analogues of Deep Warm Upper Ocean Layers: Hurricane Heat Potential Estimates. L. Shay, G. Goni, P. Black, S. Jacob, J. Cione and E. Uhlhorn. 24th Conference on Hurricanes and Tropical Meteorology, Fort Lauderdale, May-June 2000.

Couple Air-Sea Interactions During Hurricane Bonnie. T. Cook, L. Shay, P. Black, G. Goni, M. Huber, S. Jacob and J. Cione. 24th Conference on Hurricanes and Tropical Meteorology, Fort Lauderdale, May-June 2000.

The Annual Cycle of the Brazil-Malvinas Confluence Region in the NCAR Climate System Model. I. Wainer, P. Gent and G. Goni. AMS Southern Oceans Meeting, Santiago (Chile), April 2000.

Impact of North Brazil Current Rings on the Eastern Caribbean. Garraffo, Z. D., Johns, W. E., Chassignet, E. P., and Goni, G. J. AGU Oceans Science Meeting, San Antonio, January 2000.

Impact of North Brazil Current Rings on the Eastern Caribbean. W. Johns, Z. Garraffo, E. Chassignet, G. Goni, D. Fratantoni and D. Wilson. First Biennial IASI Science Meeting, Panama, November 1999.

Estimates of Hurricane Heat Potential in the western North Atlantic Ocean, Caribbean Sea and Gulf of Mexico, using TOPEX/POSEIDON-derived Sea Height Anomaly Data. G. Goni, M. Huber, R. Cheney, L. Shay, P. Black and T. Cook. First Biennial IASI Science Meeting, Panama, November 1999.

Impact of North Brazil Current Rings on the Eastern Caribbean. Z. Garraffo, W. Johns, E. Chassignet, and G. Goni. 2000 Ocean Sciences Meeting. San Antonio, Texas.

Altimeter Data for Operational Use in the Marine Environment. S. Digby, T. Antczak, G. Born, R. Leben, S. Barth, R. Cheney, G. Goni, D. Foley, G. Jacobs. The Ocean Observing System for Climate, St. Raphael (France), October 1999.

Estimates of Hurricane Heat Potential in the western North Atlantic Ocean, Caribbean Sea and Gulf of Mexico, using TOPEX/POSEIDON-derived Sea Height Anomaly Data. G. Goni, M. Huber, R. Cheney, L. Shay, P. Black and T. Cook. TOPEX/POSEIDON and JASON-1 Science Working Team Meeting, St. Raphael (France), October 1999.

Altimeter Data for Operational Use in the Marine Environment. S. Digby, T. Antczak, G. Born, R. Leben, S. Barth, R. Cheney, G. Goni, D. Foley, G. Jacobs. Oceans 99 Meeting, Seattle Washington, 605-613, September 1999.

TOPEX/POSEIDON-derived Atlantic Ocean Hurricane Heat Content Estimates. G. Goni, M. Huber, L. Shay. In 79th American Meteorological Society Meeting, 23rd Conference on Hurricanes and Tropical Meteorology, Dallas, TX, January 10-15th, Vol II:1037-1040, 1999.

Atlantic Ocean's Role on Intensity Change. M. Huber, L. Shay and G. Goni. In 79th American Meteorological Society Meeting, 23rd Conference on Hurricanes and Tropical Meteorology, Dallas, TX, January 10-15th, Vol I:36-39, 1999.



Synoptic Study of North Brazil Current Rings from Altimeter Data. G. Goni and W. Johns, AGU 1999 Spring Meeting, Boston, June 1999.

Low-salinity Lenses at Barbados, West Indies: Their Origin, Frequency and Variability. P. Kelly, K. Lwiza, R. Cowen and G. Goni, AGU 1999 Spring Meeting, Boston, June 1999.

The North Brazil Current Rings Experiment. Fratantoni, D., P. Richardson, W. Johns, C. Fleurant, R. Smith, S. Garzoli, D. Wilson and G. Goni, AGU 1999 Spring Meeting, Boston, June 1999.

The North Brazil Current Retroflection: Two Recent Surveys. Wilson, D., S. Garzoli, G. Goni, W. Johns, R. Smith, C. Fleurant, P. Richardson and D. Fratantoni, AGU 1999 Spring Meeting, Boston, June 1999.

Western Boundary Current Variability from Altimeter Data, G. Goni and S. Garzoli, 1998 Japan-GLOBEC Meeting, Mutsu City and Hakodate (Japan), August 1998.

Beguela Current Experiment. S. Garzoli, P. Richardson, C. Duncombe Rae, D. Frantantoni and G. Goni, EGS meeting, Paris (France), April 1998.

Origin and evolution of the Benguela Current Experiment rings by Altimetry. G. Goni and S. Garzoli, Ocean Science Meeting, San Diego, January 1998.

Benguela Current Experiment. S. Garzoli, P. Richardson, C. Duncombe Rae, D. Frantantoni, J. Mantel, A. Roubicek, P. Frantantoni, G. Goni and C. Whittle. Ocean Science Meeting, San Diego, January 1998.

Monitoring the upper layer southeastern Atlantic transports and eddyfield using altimeter data. G. Goni, S. Garzoli, A. Mariano, D. Olson and O. Brown. 1996 AGU Fall Meeting, San Francisco, December 1996.

Dynamics of the Southwestern Atlantic Ocean using Altimetry, Radiometry and Echo Sounders G. Goni, G. Podesta, D. Olson, O. Brown and S. Garzoli. VI Latinamerican Congress of Oceanography, Mar del Plata (Argentina), October 1995.

Long Term Variations in the Brazil-Malvinas Confluence. D. Olson, G. Podesta, L. Smith, E. Chassignet, G. Goni, S. Garzoli, S. Kamholz, R. Evans and O. Brown. *Annales Geophysicae*, Part II Oceans, Atmosphere, Hydrology Nonlinear Geophysics Suppl 11 to Vol 11, C164 (1993).

Estimates of Kinetic Energy and Potential Vorticity from Inverted Echo Sounders and GEOSAT Altimetry in the Brazil-Malvinas Confluence Area. G. Goni, G. Podesta, D.

Olson, S. Kamholz and S. Garzoli. EOS Transactions, AGU (Abstract), 74(16), p.171, 1993 Spring AGU Meeting, Baltimore, May 1993.

A comparison of AVHRR- and GEOSAT-Derived Locations of the Brazil Current Surface Front. G. Podesta, G. Goni and O. Brown. 1992 Fall AGU Meeting, San Francisco, December 1992.

Comparison of GEOSAT Sea Level Height Residuals in the SW Atlantic Using Three Orbit Correction Methods G. Goni, J. Brown, O. Brown and G. Podesta. AGU-CGU-MSA 1992 Spring Joint Meeting, Montreal (Canada), May 1992.

A search for wave chaos in a simple range-dependent Underwater Acoustic Waveguide. F. Tappert, M. Brown and G. Goni. 118th Meeting of the ASA, State College (PA), May 1990.

An Investigation of Range-Dependent Sound Ray Propagation in the Ocean Volume Using an Area Preserving Mapping. F. Tappert, M. Brown and G. Goni, 118th Meeting of the ASA, State College (PA), May 1990.

Chaos in Underwater Acoustics. F. Tappert, M. G. Brown G. Goni and K. Smith. Institute of Acoustics, Loughborough University (UK), December 1989.

Exponential Growth of Multipaths under Chaotic Conditions in a Simple Deterministic Range-Dependent Waveguide. F. Tappert, M. Brown and G. Goni. J. Acoust. Soc. Am. Suppl. 1, 85, 1989.

Chaos and Hyperchaos in Shallow Water Acoustics. F. Tappert, M. Brown and G. Goni. J. Acoust. Soc. Am. Suppl. 1, Vol 84, 1988.

Effect of Biot's Slow Compressional Wave on the Normal-mode Attenuation Coefficient for Shallow-water Propagation. G. Goni, J. Acoust. Soc. Amer., 80, 1996.

## **Research Cruises and Experiments**

August 1999. Gulf of Mexico airborne P3 experiment. (Scientist)

December 1998. North Brazil Current Ring Experiment, R/V Seward Johnson (Scientist)

August 1998. Florida Bay Cruise, R/V Calanus (Invited Scientist)

August 1990. Gulf of Mexico Transmission Loss Acoustic Experiment, University of Texas R/V Lonhorn (Graduate Student)

July 1983. South Atlantic Sea Bottom Acoustics Experiment R/V Austral (Scientist, Servicio de Hidrografia Naval, Argentina)

March 1983. Observation of the Deep Scattering Layer in the Brazil-Malvinas Convergence Region. (Scientist, Servicio de Hidrografia Naval, Argentina).

### **Current Funded Proposals**

Implementation of High-Density XBT Lines AX08 and AX18 with IMET Instrumentation in the Tropical Atlantic, funded by NOAA/OGP, July 2001 - June 2006. G. Goni, M. Baringer, S. Garzoli.

Air-Sea Flux Estimation in High Wind Boundary Layers, funded by ONR. October 2000 - September 2006. P. G. Black, K. Katsaros, G. Goni, W. Drennan, T. Crawford, J. Carswell and P. Chang.

Web Access to Ocean Current and Hurricane Heat Potential Fields Extracted from Altimeter and Scatterometer, submitted to NOAA/ESDIM, G. Goni.

Tropical-Subtropical Interactions by S. Garzoli, G. Goni, M. Baringer and C. Schmid.

The North Brazil Current Ring Experiment: Data Analysis and Synthesis, to NSF, W. Johns, Z. Garraffo, S. Garzoli, G. Goni

### **Past Funded Proposals**

Rings of the North Brazil Current: Their Generation and Role in the Atlantic Meridional Overturning Cell, funded by NSF, 1998-2001. W. Johns, G. Goni, S. Garzoli, A. Field, P. Richardson and D. Fratantoni. National Science Foundation.

Air-Sea Coupling Mechanisms in Tropical Cyclones, funded by NSF, 1995-1998. L. Shay and G. Goni

### **Miscellaneous**

Member of the American Geophysical Union.

Member of the American Meteorological Society.

## **Student Committees**

Joaquin Angel Trinanes Fernandez. University of Santiago de Compostela, Spain, Ph.D, March 1998.

Carlos Fonseca, M.S., University of Sao Paulo, May 2002.

Carlos Lentini, PhD, RSMAS/University of Miami, current.

## **Personal**

Single. US, Spanish and Argentine citizen.