Fernando S. Paolo

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Education

Ph.D. Geophysics, **Scripps Oceanography**, University of California, San Diego (*Sep 2, 2015*)
M.S. Geophysics (w/honors), University of São Paulo, Brazil 2009
B.S. Oceanography (w/honors), University of São Paulo, Brazil 2007

Interests

Satellite remote sensing, ice-ocean-atmosphere interaction, ice-shelf/ice-sheet mass balance, climate change | Radar and laser altimetry, radar interferometry and imagery | Processing and analysis of large-scale data sets, image processing, statistical modeling and time-series analysis

Research

Current 2009–15	Doctoral Dissertation Interannual and decadal variations of Antarctic ice shelves using multi-mission satellite radar altimetry, and links with oceanic and atmospheric forcings.
2007–08	Master's Thesis Satellite altimetry and marine gravity on the integrated representation of the gravity field along the Brazilian coast.
2004–06	Bachelor's Thesis Characterization of bottom morphodynamics of Cananéia estuary by shallow seismic profiling and side-scan sonar.

Skills

Programming:	Python, C/C++, Fortran 90/95, Shell-Script, HTML/CSS/JavaScript
Software:	UNIX/Mac/Linux, VTK/ParaView, GMT, Matlab, MPI, GIS, LaTeX, git, VIM, etc.
Languages:	English (fluent), Portuguese (native), Spanish (native)

Communication

Received training in Public Speaking & Leadership (at Toastmasters and UC San Diego) | Gave interviews (about my research) to *Los Angeles Times*, *The Washington Post*, *Reuters*, *BBC News*, *The Wall Street Journal*, among others | Wrote 6 papers, 3 articles and presented at 12 (inter)national conferences (3 awarded prizes) | Co-wrote lab grants and proposals | Reviewed papers for *J. Glaciol.* and *The Cryosphere* | Assisted in reviewing NASA and NSF proposals | Organized 2 institutional seminar series | Developed and maintain 3 websites

Teaching

Aug–Dec 2008	Computing for Geophysicists, T.A. at University of São Paulo
Mar–Jul 2008	Introduction to Geophysics, T.A. at University of São Paulo

Awards and Honors

2014	AGU Outstanding Student Paper Award, Cryosphere
2012–14	NASA Earth and Space Science Fellowship (NESSF)
2011	AAAS Student Award (1st place), Atmospheric and Oceanographic Sciences
2010	AGU Outstanding Student Paper Award, Cryosphere
2010	Honor Mention (best M.S. Thesis in geophysics), University of São Paulo
2008	T.A. Fellowship (M.S.), Brazilian Ministry of Education
2007–08	Graduate Fellowship (M.S.), Brazilian Ministry of Science and Technology
2007	Honor Mention (2nd best B.S. Thesis), University of São Paulo
2005–06	Undergrad. Fellowship, São Paulo Research Foundation
2004	Undergrad. Fellowship, Brazilian Ministry of Science and Technology

Publications

Journal Articles

- **F. S. Paolo**, H. A. Fricker, L. Padman, "Developing optimal decadal records of Antarctic ice-shelf height change from multiple satellite radar altimeters", *Remote. Sens. Environ.* (in review).
- P. R. Holland, A. Brisbourne, H. F. J. Corr, D. McGrath, K. Purdon, J. Paden, H. A. Fricker, **F. S. Paolo**, A. Fleming, "Oceanic and atmospheric forcing of Larsen C Ice-Shelf thinning", *The Cryosphere* (2015).
- **F. S. Paolo**, H. A. Fricker, L. Padman, "Volume loss from Antarctic ice shelves is accelerating", *Science* (2015).
- **F. S. Paolo**, E. C. Molina, "Integrated marine gravity field along the Brazilian coast from altimeter-derived sea surface gradient and shipborne gravity", *J. Geodyn.* (2010).
- **F. S. Paolo**, "Satellite altimetry and marine gravity on the integrated representation of the gravity field, Brazil coast", *M.S. Thesis* (2009).
- M. C. Bícego, E. Zanardi-Lamardo, S. Taniguchi, C. C. Martins, D. A. M. da Silva, S. T. Sasaki, A. C. R. Albergaria-Barbosa, **F. S. Paolo**, R. R. Weber, R. C. Montone, "Results from a 15-year study on hydrocarbon concentrations in water and sediment from Admiralty Bay, King George Island, Antarctica", *Antarct. Sci.* (2009).
- **F. S. Paolo**, M. M. Mahiques, "Utilization of acoustic methods in coastal dynamics studies: example in the Cananéia lagoonal mouth", *Braz. J. Geophys.* (2008).

Data Sets

- Moholdt, G., H.A. Fricker, L. Padman and **F.S. Paolo** (2013), Synthesized grounding line and ice shelf mask for Antarctica. *Scripps Institution of Oceanography, UCSD*, 25 pp. doi.pangaea.de/10.1594/PANGAEA.819150

Fieldwork

Dec 2004	RV *P.W. Besnard*, Geophysical and Geological Survey, Brazil coast (12 days at sea)
Jan 2004	Brazilian Antarctic Research Station *Comandante Ferraz* (30 days in Antarctica)
Dec 2003	RB *Escuna*, Environmental Monitoring Program, Bahia, Brazil (14 days at sea)
Jan 2003	RV *P.W. Besnard*, Oceanographic Moorings II, Brazil coast (8 days at sea)
Jul 2002	RV *P.W. Besnard*, Oceanographic Moorings I, Brazil coast (9 days at sea)

References

Dr. Helen A. Fricker, *Remote Sensisng and Glaciology*, UC San Diego, hafricker@ucsd.edu
Dr. Laurie Padman, *Physical Oceanography*, Earth & Space Research, padman@esr.org
Dr. David T. Sandwell, *Remote Sensing and Geodesy*, UC San Diego, dsandwell@ucsd.edu