

# 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	DOCTORAL DISSERTATION
2009–15	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,  $\text{\LaTeX}$ , 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
- 2013–15 NASA Earth and Space Science Fellowship (NESSF)
- 2011 AAAS Student Award (1st place), Atmospheric & Oceanographic Sci.
- 2010 AGU Outstanding Student Paper Award, Cryosphere
- 2010 Honor Mention (best M.S. Thesis in geophysics), University of São Paulo
- 2008 Brazilian Ministry of Education Teaching Fellowship
- 2007–08 Brazilian Ministry of Sci. & Tech. Fellowship (Masters)
- 2007 Honor Mention (2nd best B.S. Thesis), University of São Paulo
- 2005–06 São Paulo Research Foundation Fellowship (Undergrad)
- 2004 Brazilian Ministry of Sci. & Tech. Fellowship (Undergrad)

## 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. Bicego, 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 Sensing 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