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# Bia Villas Bôas

## Education

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|--------------|--|--|
| 2014–PRESENT |  | <b>PhD in physical oceanography</b> , Scripps Institution of Oceanography. |
| 2012–2014    |  | <b>MSc. in physical oceanography</b> , University of São Paulo.            |
| 2007–2011    |  | <b>BSc. in physics</b> , Federal University of Rio Grande do Norte.        |

## Research Experience

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|--------------|--|--|
| 2014–PRESENT |  | <b>Graduate Student Researcher - SIO</b><br>I look at how surface currents modulate the wave field at meso and submesoscales, and how non-breaking waves contribute to vertical mixing in the upper ocean. Advisors: <b>Sarah Gille</b> , Matthew Mazloff, and Bruce Cornuelle.  |
| 2012–2014    |  | <b>Graduate Student Researcher - IOUSP</b><br>Masters student at the Oceanographic Institute of the University of São Paulo (IOUSP) working on air–sea interactions at mesoscales. Title of the project: <i>“The contribution of mesoscale eddies to the surface heat budget in the South Atlantic”</i> , funded by the São Paulo Research Foundation (FAPESP)   |
| 2013         |  | <b>Visiting Research Student - LEGOS</b><br>Visiting research student at the <i>Laboratoire d’Etudes en Géophysique et Océanographie Spatiales (LEGOS)</i> , Toulouse, France. Working on the identification of mesoscale eddies and eddy dynamics under the supervision of Dr. Alexis Chaigneau. This work was funded by the Research Internships Abroad (BEPE) program from the the São Paulo Research Foundation (FAPESP). Title of the project: <i>“The methods of identifying mesoscale eddies from satellite altimetry data”</i> . |
| 2011         |  | <b>Undergraduate Research - UFRN</b><br>Undergraduate research project at the Federal University of Rio Grande do Norte (UFRN), working on the dynamics of well-mixed estuaries.   |

## Publications

Sarah Gille, Ryan Abernathey, Teresa Chereskin, Bruce Cornuelle, Heimbach Patrick, Matthew Mazloff, Cesar Rocha, Saulo Soares, Maike Sonnewald, **Ana B. Villas Bôas**, and Jinbo Wang. Open Code Policy for NASA Space Science: A perspective from NASA-supported ocean modeling and ocean data analysis. White Paper on Best Practices for a Future Open Code Policy for NASA Space Science, National Academy of Sciences, Washington, DC., 2018

**Ana B. Villas Bôas**, Sarah T. Gille, Matthew R. Mazloff, and Bruce D. Cornuelle. Characterization of the deep water surface wave variability in the California Current Region. *Journal of Geophysical Research: Oceans*, 122(11):8753–8769, 2017

**Ana B Villas Bôas**, Olga T Sato, Alexis Chaigneau, and Guilherme P Castelão. The signature of mesoscale eddies on the air-sea turbulent heat fluxes in the south atlantic ocean. *Geophysical Research Letters*, 42(6):1856–1862, 2015

Guilherme P Castelão, Luiz C Irber, and **Ana B Villas Bôas**. An objective reference system for studying rings in the ocean. *Computers & Geosciences*, 61:43–49, 2013

## Fellowships and Awards

2018	<b>Fellow of the Planetary Boundary Layers in Atmospheres, Oceans, and Ice on Earth and Moons Program</b> – The Kavli Institute for Theoretical Physics, University of California, Santa Barbara
2017	<b>NASA Earth and Space Science Graduate Fellowship</b> – Awarded by the National Aeronautics and Space Administration
2017	<b>Outstanding Mentor Award</b> – Awarded by Scripps Institution of Oceanography for guidance, leadership, and unwavering commitment to helping fellow students
2014	<b>T.R. and Edith Folsom Endowed Graduate Fellowship Fund</b> – Awarded by Scripps Institution of Oceanography

## Service

2016–present	<b>Outreach</b> – Help lead various outreach activities at Scripps’ Hydrolics Laboratory running demos in the wave tank.
2016–present	<b>Undergrad mentoring</b> – Mentor undergraduate research projects. I currently supervise students Roger Wu (Sophomore, Oceanic and Atmospheric Sciences Major) and Luke Colosi (Freshman, Physics Major)
2016–present	<b>Peer Mentor</b> – Mentor for first year PhD. students as part of the peer mentor program at Scripps Institution of Oceanography, San Diego, CA.
2016	<b>Student Committee Member</b> – Served as a member of the student committee for the observational physical oceanography faculty search at Scripps Institution of Oceanography

## Teaching Experience

2018	<b>Software and Data Carpentry Instructor</b> - Certified Software and Data Carpentry Instructor.
2010	<b>Linear Algebra</b> - Teaching assistant for linear algebra – Federal University of Rio Grande do Norte, Natal, Brazil.
	<b>Calculus II</b> - Teaching assistant for calculus II – Federal University of Rio Grande do Norte, Natal, Brazil.

## Computational skills

OPERATING SYSTEMS	Unix-based operating systems, command–line, Bash, and Shell-Script.
PROGRAMMING LANGUAGES	Python, C, Fortran, and MatLab.
TOOLS AND SOFTWARE	LaTeX, VIM, version control systems (Git, Mercurial), iPython notebooks, and Markdown.
NUMERICAL MODELEING	WaveWatch III framework.

## Languages

Portuguese: Native language  
English: Full proficiency  
Spanish: Professional working proficiency  
French: Limited working proficiency

## References

### **Dr. Sarah Gille:**

**sgille@ucsd.edu**

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### **Dr. Bruce Cornuelle:**

**bcornuelle@ucsd.edu**

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