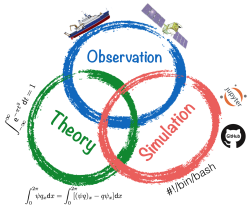
crocha@ucsd.edu
crocha700.github.io
github: crocha700
vimeo: crocha700
ORCID: 0000-0003-4063-5468
08 Jun, 2018



Cesar B Rocha

Physical oceanographer

Research Observational and theoretical physical oceanography; mesoscale and submesoscale turbulence; internal waves.

Education

2018: PhD in Oceanography, Scripps Institution of Oceanography, University of California, San Diego
2013: MSc (Honors) in Physical Oceanography, University of São Paulo, Brazil 2011: BSc (Honors) in Oceanography, University of São Paulo, Brazil

Experience/Employment

2016–2018, Graduate Writing Consultant, UCSD Writing Hub
Support graduate writers on campus.

2015, Fellow in Geophysical Fluid Dynamics, GFD Program, WHOI
Conducted research in stratified turbulence. **2013–2018, Graduate Student Researcher, SIO/UCSD**
Conducted research in upper-ocean dynamics and geophysical fluid dynamics.

2012, Visiting student, University of Massachusetts Dartmouth
Conducted research in mesoscale dynamics of the Brazil Current.

Publications

Peer-reviewed

7. **Rocha, C. B.**, Wagner, G. L., Young, W. R. (2018): "Stimulated generation: extraction of energy from blanced flow by near-inertial waves, " *J. Fluid Mechanics*, vol. 847, pp. 417451, doi:10.1017/jfm.2018.308.

6. Ardhuin, F., Gille, S., Menemenlis, D., **Rocha, C. B.**, Rascle, N., Chapron, B., Gula, J., Molemaker, J., 2017: "Small scale currents have large effects on ocean wave heights," , *J. Geophys. Res. Oceans*, 122, doi: 10.1002/2016JC012413.

5. **Rocha, C. B.**, Gille, S. T., Chereskin, T. K., and Menemenlis, D., 2016: "Seasonality of submesoscale dynamics in the Kuroshio Extension," *Geophys. Res. Lett.*, 43, doi: 10.1002/2016GL071349.

4. **Rocha, C. B.**; Chereskin, T. K.; Gille, S. T. and Menemenlis, D., 2016: "Mesoscale to submesoscale wavenumber spectra in Drake Passage," *J. Phys. Oceanogr.*, 46 (2), 601-620, doi:10.1175/JPO-D-15-0087.1.

3. **Rocha, C. B.**; Young, W. R. and Grooms, I., 2016: "On Galerkin approximations of the surface-active quasi-geostrophic equations," *J. Phys. Oceanogr.*, 46 (1), 125-139, doi:10.1175/JPO-D-15-0073.1

2. **Rocha, C. B.**; da Silveira, I. C. A., Castro, B. ,M. and Lima, J. A. M., **2014**: "Vertical structure, energetics and dynamics of the Brazil Current System at 22°S-28°S," *J. Geophys. Res., 119,* doi:10.1002/2013JC009143.

1. **Rocha, C. B.**; Tandon, A.; da Silveira, I. C. A. and Lima, J. A. M., **2013**: "Traditional Quasi-geostrophic modes and Surface Quasi-geostrophic solutions in the Southwestern Atlantic," *J. Geophys. Res., 118 (5),* doi:10.1002/jgrc.20214.

Honors & Awards

2018, W. Howland Jr. Postdoctoral Scholarship, Woods Whole Oceanographic Institution
2017, French-American Doctoral Exchange Program, Embassy of France in the USA
2016, NASA Earth & Space Science Graduate Fellowship
2015, Geophysical Fluid Dynamics Fellowship, Woods Hole Oceanographic Institution
2011, Best Honor Thesis, University of Sao Paulo

Service

Referee

Deep Sea Research–I, Journal of Geophysical Research–Oceans, Geophysical Research Letters, Journal of Fluid Mechanics, Journal of Physical Oceanography, Nature Communications, Ocean Modelling.

Student committee member

2016, SIO faculty search in large-scale observational physical oceanography.
2015, 2017, SIO teaching award.

Mentorship

2015–2017, Student host for the SIO open house.
2015, Mentor for first-year SIO PhD students.

Software

Core developer for "Python quasigeostrophic model" (PyQG),
`doi.org/10.5281/zenodo.30517`

Core developer for "Spectral Analysis in Python" (PySpec),

`doi.org/10.5281/zenodo.31596`

Contributor to several open source projects on github.

Skills

Programming

Python , C, Fortran 90, Shell-Script, Matlab, git, mercurial, markdown

Languages

English (fluent), Portuguese (native), Spanish (professional fluency), French (basic)

Membership

American Geophysical Union, The Oceanography Society, NumFOCUS

References

William R. Young

Distinguished Professor of Oceanography, UC San Diego, `wryoung@ucsd.edu`

Sarah T. Gille

Professor of Oceanography, UC San Diego, `sgille@ucsd.edu`

Teresa K. Chereskin

Research Oceanographer and Senior Lecturer, UC San Diego, `tchereskin@ucsd.edu`