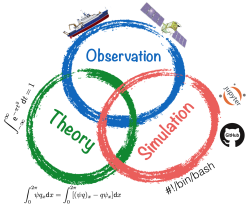crocha@ucsd.edu
crocha700.github.io
github: crocha700
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09 Oct, 2017

Cesar B Rocha
Physical oceanographer

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

Education

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

Experience/Employment

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

2015, Fellow in Geophysical Fluid Dynamics, GFD Program, WHOI
Coupled reduced equations for strongly stratified flows.

2013–Current, Graduate Student Researcher, SIO/UCSD
Dynamics of the upper ocean.

2012, Visiting student, University of Massachusetts Dartmouth
Quasigeostrophic modes and surface quasigeostrophic solutions.

Publications

Submitted
Rocha, C. B., Wagner, G. L., Young, W. R.: "Stimulated generation: extraction of energy from blanced flow by near-inertial waves, " submitted to *J. Fluid Mechanics*.

Peer-reviewed
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

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`