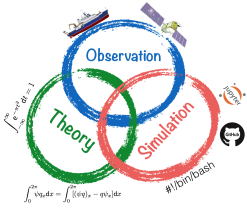


crocha@ucsd.edu  
crocha700.github.io  
github: crocha700  
vimeo: crocha700  
ORCID: 0000-  
0003-4063-5468  
15 Apr, 2018



# 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

### Peer-reviewed

7. **Rocha, C. B.**, Wagner, G. L., Young, W. R.: “Stimulated generation: extraction of energy from balanced flow by near-inertial waves,” *in press, J. Fluid Mechanics*.
6. Ardhuin, F., Gille, S., Menemenlis, D., **Rocha, C. B.**, Raschle, 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](https://doi.org/10.5281/zenodo.30517)

Core developer for “Spectral Analysis in Python” (PySpec),  
[doi.org/10.5281/zenodo.31596](https://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](mailto:wryoung@ucsd.edu)

### Sarah T. Gille

Professor of Oceanography, UC San Diego, [sgille@ucsd.edu](mailto:sgille@ucsd.edu)

### Teresa K. Chereskin

Research Oceanographer and Senior Lecturer, UC San Diego, [tchereskin@ucsd.edu](mailto:tchereskin@ucsd.edu)