

Rachel Spratt

PO Box 13881

Santa Barbara, CA 93107

email: rachelspratt@gmail.com

cell: 1 805-636-9823

Schools attended:

1986-1990 *Swarthmore College*, Swarthmore PA *Biology BA*

2009-1012 *Lehman College* Bronx NYC *Mathematics BA*

2013-2020 *University of California Santa Barbara* *Marine Science PhD (3.82)*

Website with research and github repository:

<https://5f01657f17be9.site123.me/>

Published Articles:

- Created an mean of global sea level over the last 800,000 years using estimates derived from stable oxygen isotope records:

<https://cp.copernicus.org/articles/12/1079/2016/cp-12-1079-2016.pdf>

- Alzheimer's Study, Harvard Medical School

<http://www.ncbi.nlm.nih.gov/pubmed?term=Spratt%20RA>

Past presentations at the American Geophysical Union:

- 2014: Late Pleistocene Sea Level Stack:
<https://agu.confex.com/agu/fm14/webprogram/Paper7570.html>
- 2017: (Virtual Poster) Tuning a 3-box model to simulate modern seawater delta-O-18
<https://drive.google.com/file/d/1fOw8ry3QdHUcGQivklog7oL6HUKShtW9/view?usp=sharing>
- 2018: Millennial Scale Periodicity in a 1.4 Ma Synthetic Lunar Time Series Suggests Possible Climate Forcing: <https://ui.adsabs.harvard.edu/abs/2018AGUFMPP53C1211S/abstract>
- 2019: Model-data comparison of Atlantic delta-O-18 of seawater gradient changes between the LGM and Holocene: [adsabs.harvard.edu/abs/2019AGUFMPP23E1700S/abstract](https://ui.adsabs.harvard.edu/abs/2019AGUFMPP23E1700S/abstract)
- 2020: Simplification of the three box ocean-model to a one-box model in the North Atlantic, comparing Last glacial Maximum and delta-O-18 of seawater delta ¹⁸O:
<https://ui.adsabs.harvard.edu/abs/2020AGUFMPP0360006S/abstract>

Research experiences at UCSB:

- Attended symposium on using and running of Community Earth System Model climate model (CESM) at the National Center for Atmospheric Research (NCAR), August, 2020

- NSF research grant (#1444080): Worked on a project to create a technical device to determine its marketability: compiling runoff and nutrient data from JASON satellite data, ARGO float data, and San Pedro Ocean Time Series data, Spring, 2020
- Created model of atmosphere and ocean circulation using parameters developed from evaporation and precipitation in the North Atlantic several complex model runs, thesis research, Spring 2015-Fall 2019
- Participated in the Center for Scientific Computing's (CSC) Simulations in Science symposium/science-fair in the Spring of 2020, allowing students to network and share the research with students and technical guests who spoke at the symposium.
- Research Experience for Undergraduates (REU) $AX+X^TB=0$: Invited to participate in unsolved matrix problem, UCSB math department June 2011- July 2011.

Teaching

- Instructor of Record UCSB Fall '19, Summer '18 Introduction to Oceanography
Presented all lectures, hosted a variety of guest experts in oceanography, wrote all laboratory exercises, especially beach laboratories inspired to teach students about ecology and conservation
- Summer Institute for Teaching Associates (STIA) learning helpful pedagogy from experienced graduate students who have been prior instructor of record
- UCSB Teaching Assistant (16 quarters):
Oceanography (4 quarters), Environmental Science (2 quarters), Antarctica (3 quarters), Earth's Climate (2 quarters), Dinosaurs (2 quarters), Introduction to Climate Modeling (2 quarters), Earth's Catastrophes (1 quarter)

Outreach UCSB: 2015-2019

- *Participated in conversational English with incoming international students in preparation for Teaching Associate proficiency exam, Summers, 2016-2019*
- *Attended all-UC governance rally in Irvine, CA, Fall 2016, including graduate student association plenary sessions and events.*
- *Participated in committee to choose Associate Vice Chancellor of Technology/CIO Pierre Wiltzius, chairman Summer 2015*

Relevant awards and certificates

- *Summer Teaching Institute for Instructors of Record in Spring 2018 (STIA certificate)*
- *Academic Senate Travel Grant 2018 American Geophysical Union (AGU) conference*
- *STEM Fellows Award, UCSB, 09/2015*
- *Women in Science and Engineering Award, UCSB, 12/2014*
- *Departmental Fellowship Earth Science, UCSB, 09/2014*