Yakelyn R. Jauregui, Ph.D. graduate student
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Education

Department of Atmospheric Science, University of Washington, Seattle
Ph.D. in Atmospheric Sciences, expected 2022
Advisor: Professor Shuyi S. Chen
M.S. in Atmospheric Sciences, September 2017-January 2020
Master's Thesis Title: "MJO-induced Warm Pool Eastward Extension Prior to the Onset of El Niño: An Observational study"
Advisor: Professor Shuyi S. Chen

La Molina National University of Agriculture, Lima, Peru
B.S., Meteorology, December 2013
Engineering degree, February 2014
Passed thesis with distinction: "Estimating the effect of climate change on precipitation in the northern coast of Peru using global climate models simulations."
Advisor: Ken Takahashi Guevara, PhD.

Professional experience

The University of Washington
Graduate Research assistant Sep 2017 – now
Working under Dr. Shuyi Chen (advisor)

- The overarching goal is to better understand the ocean-atmosphere interactions in the western Pacific, particularly the Madden-Julian Oscillation (MJO) contribution to the onset of El Niño from 1999- 2019.

Teaching assistant - Winter 2020

- Working under Professor Kathleen Huybers, leading weekly quiz/discussion sections for undergraduates, ATMS 111: Global warming understanding the Issues.
- Tasks: Developed and graded quizzes and exams; held weekly office hours to answer student questions.

Peruvian's Geophysical Institution
Research assistant 2014 – 2016
Intern 2013

- Worked under Dr. Ken Takahashi Guevara. As data analyst I created a database of global models from CMIP5. I automatized the data pre-processing using bash and **Fortran.**
- **I used CMIP5 data to evaluate the precipitation distribution using a simple physical-empirical model of the precipitation distribution based on a tropical sea surface temperature threshold and estimate the precipitation's change under global warming.**
- Scientific support on the research of El Niño using reanalysis data and atmospheric-ocean models, as well as other data sources.

Publications

- Jauregui, Y.R., Chen, S.S., (2021). MJO-induced Warm Pool Eastward Extension in Connection to the Onset of El Niño: Observations from 1998-2019. Journal of Climate in revision.
- Segura, H., Junquas, C., Espinoza, J.C. et al (2019). New insights into the rainfall variability in the tropical Andes on seasonal and interannual time scales. Clim Dyn 53, 405–426. DOI:10.1007/s00382-018-4590-8
- Jauregui, Y.R., Takahashi, K (2018). Simple physical-empirical model of the precipitation distribution based on a tropical sea surface temperature threshold and the effects of climate change. Clim. Dyn. 50, 2217–2237. DOI: 10.1007/s00382-017-3745-3

Conference and Presentations

- Jauregui, Y.R. and Chen S.S. (2021) Multiscale Air-Sea Interaction Processes and Warm Pool Eastward Extension (WPEE): MJO and El Niño Onset. AGU, May 2021, Tropical Pacific Observing Needs to Advance Process Understanding and Representation in Models Workshop, panelist of the Multi-scale Ocean-Atmosphere Coupled Processes session.
- Jauregui, Y.R. and Chen S.S. (2020) Multiscale Processes in MJO-induced Warm Pool Eastward Extension prior to the Onset of 2018 El Niño. AGU, December 2020, Oral presentation.
- Jauregui, Y.R. and Chen S.S. (2020) Understanding MJO – Induced Eastward Extension of Warm pool and the onset of El Niño. Large-Scale dynamics' seminar at the Colorado State University, November 2020.
- Jauregui, Y.R. and Chen S.S. (2020) The Warm pool eastward extension associated with the MJO events occurred prior to the Onset of El Niño event 2018. AGU Ocean Science Meeting, February 2020. Poster
- Jauregui, Y.R. and Chen S.S. (2019) Understanding MJO – Induced Eastward Extension of Warm pool and the onset of El Niño. US CLIVAR - Atmospheric Convection and Air-Sea interactions over the Tropical Ocean. Poster
- Jauregui, Y.R. and Chen S.S. (2019) MJO-induced Warm Pool Eastward Extension and Onset of El Niño. AGU Fall Meeting. Poster
- Jauregui, Y.R. and Chen S.S. (2018) Westerly Winds Associated with the Madden-Julian Oscillation and the Onset of El Niño 2015-2016. AGU Fall Meeting. Presentation
- Jauregui, Y.R., Takahashi, K (2013) Simple physical-empirical model of the precipitation distribution based on a tropical sea surface temperature threshold and the effects of climate change. WCRP VAMOS/CORDEX Workshop on Latin American and the Caribbean, Lima – Peru.
- Jauregui, Y.R., Takahashi, K (2013) Simple physical-empirical model of the precipitation distribution based on a tropical sea surface temperature threshold and the effects of climate change**.** Third Congress of Physical Oceanography, Meteorology and Climate of the South Eastern Pacific held in Santiago – Chile.

Awards

- NASA ROSES-20 Future Investigations in NASA Earth and Space Science and Technology (FINESST) Program – Earth division, 2021- now
- JISAO graduate Fellowship, University of Washington, summer 2019.
- UCAR Next Generation Fellowships supporting the future of Science. Earth System Science track 2020 – 2021
- The National Fund for Scientific and Technological Development (FONDECYT). Peruvian fellowship supporting part of my PhD education, 2017 – 2019.

Extracurriculars

- Atmospheric Sciences Department Graduate Mentor, University of Washington 2021-Present
- Atmospheric Sciences Department Undergraduate Mentor, University of Washington 2019-Present
- Atmospheric Sciences Department Community Outreach Member, University of Washington 2017- Present
- Atmospheric Science Women's Group Member, University of Washington 2019 – Present
- Graduate Mentor and member of the Society of Latinxs/Hispanics in Earth and Space Science.

Skills

Programing Languages: Bash, Emacs, Git, Python, Matlab, LaTex, Fortran

My repositories of tutorials about data analysis of atmospheric and oceanographic data are maintained here: https://github.com/YakelynRJ