

Yackar L. Mauzole
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Assistant Project Scientist
Marine Physical Laboratory
Scripps Institution of Oceanography
University of California, San Diego
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PROFESSIONAL EXPERIENCE

Assistant Project Scientist

Scripps Institution of Oceanography, University of California, San Diego, USA
Supervisor: Prof. Jennifer MacKinnon Nov 2023- *Present*

Postdoctoral Research Scholar

Scripps Institution of Oceanography, University of California, San Diego, USA
Submesoscale processes: fronts and filaments in the Bay of Bengal for the MISO-BoB project
Advisor: Prof. Jennifer MacKinnon Nov 2019- June 2023

Postdoctoral Research Scholar

Jet Propulsion Laboratory, California Institute of Technology, Pasadena, USA
Frontal processes in the California Current System
Advisor: Dr. Lee-Lueng Fu Nov 2017-Nov 2019

Science writer for the Volvo Ocean Race project
University of Rhode Island Foundation, Kingston, USA
Microplastics pollution across the ocean Summer 2017

EDUCATION

Ph.D. in Oceanography - University of Rhode Island, Graduate School of Oceanography.
Thesis: *Dynamical typology of sea surface temperature (SST) fronts based on satellite observations.*
Advisor: Peter Cornillon 2017

M.S. in Oceanography - University of Rhode Island, Graduate School of Oceanography.
Thesis: *Sea-spray impact on momentum exchanges at the air-sea interface during high wind conditions.* Advisor: Tetsu Hara 2014

M.S. in Fluid Mechanics - Ecole Polytechnique, France. Thesis: *Dynamics of Buoyant Coastal Currents.* Advisor: Claudia Cenedese 2009

Engineering degree in Materials Science - École Européenne d'Ingénieurs en Génie des Matériaux, Nancy, France 2008

RESEARCH EXPERIENCE

Graduate Research Assistant, at the University of Rhode Island	2010-2016
Research cruise aboard the R/V Endeavor	2013
Visiting Graduate Student, at Woods Hole Oceanographic Institution	2009

TEACHING EXPERIENCE

Guest Lecture on Remote Sensing in Oceanography – BIOL 440, at Chapman University	2021
Guest Lecture on Remote Sensing in Oceanography, at the University of Maryland	2020
Guest Lecture on Coastal Upwelling – SIO 90, at the Scripps Institution of Oceanography	2020
Teaching Assistant, at the University of Rhode Island	
- OCG 301: General Oceanography (undergrad class)	2016
- OCG 501: Physical Oceanography (graduate-level class)	2015

PUBLICATIONS

5. **Mauzole, Y. L.**, MacKinnon, J., Nature of coastal filaments in the Bay of Bengal, *in preparation*.
4. **Mauzole, Y. L.** A machine learning application to global satellite observations: Typology of persistent ocean SST fronts, *in preparation*.
3. **Mauzole, Y. L.** (2022). Objective delineation of persistent SST fronts based on global satellite observations. *Remote Sensing of Environment, Volume 269, 112798*.
2. **Mauzole, Y. L.**, Torres, H. S., & Fu, L. L. (2020). Patterns and Dynamics of SST Fronts in the California Current System. *Journal of Geophysical Research: Oceans, 125(2)*.
1. Banari, A., **Mauzole, Y.**, Hara, T., Grilli, S. T., & Janßen, C. F. (2015). The simulation of turbulent particle-laden channel flow by the Lattice Boltzmann method. *International Journal for Numerical Methods in Fluids, 79(10)*, 491-513.

PRESENTATIONS

International Meetings

- *Patterns and Dynamics of SST fronts in the California Current System*. Invited talk at the Reunión Anual Unión Geofísica Mexicana (Mexican equivalent of the AGU meeting). 2020
- *Spatio-Temporal Variability of Sea Surface Temperature Fronts in the California Current System*. Poster presentation at the Living Planet Symposium, Milan, Italy. 2019
- *Objective mapping of persistent SST fronts based on global satellite observations*. Oral presentation at the 50th International Liege Colloquium on Ocean Dynamics, Liege, Belgium. 2018

Domestic Meetings

- *A study of coastal filaments in the Bay of Bengal*. Oral presentation at the Ocean Sciences Meeting (fully virtual) 2022
- *Role of mesoscale eddies in ocean transport*. Talk at the Monsoon Intra-seasonal Oscillation in the Bay of Bengal (MISO-BoB) PI meeting 2020

- *Ocean frontal regions: A global survey*. Poster presentation at the AGU Fall Meeting, San Francisco 2016
- *Automated method to track persistent SST fronts*. Poster presentation delivered at the GHRSSST XVII (Group for High Resolution Sea Surface Temperature) Meeting, Washington, D.C. 2016
- *Spatial correlations: A measure of the relationship between SST fronts and bottom topography*. Poster presentation delivered at the Ocean Sciences Meeting, New Orleans 2016
- *Study of sea spray impact on air-sea momentum flux using a Lattice-Boltzmann method for fluid dynamics*. Poster presentation delivered at the 18th Conference on Air-Sea Interactions of the American Meteorological Society, Boston 2012

Seminars

- *Nature of coastal filaments in the Bay of Bengal*. Seminar at the Atmospheric and Oceanic Sciences Department, University of California Los Angeles. 2024
- *Satellite observations of oceanic fronts and improved detection of persistent SST fronts*. Seminar at the GFDL, Princeton University. 2022
- *Navigating Life's currents: my first 10 years in Oceanography*. Seminar at the Interdepartmental Graduate Program in Marine Science, University of California Santa Barbara. 2022
- *Satellite observations of submesoscale processes across the ocean*. Seminar at the Hopkins Marine Station, Stanford University. 2022
- *Explore Earth: Bringing Oceanography into the K-12 classroom*. Invited guest for NASA Educator Professional Development webinars. 2019-2021
- *Improved frontal detection in global satellite observations*. Seminar at the EAPS department, MIT – and at the Physical Oceanography department, WHOI. 2021
- *Role of mesoscale eddies in ocean transport*. Talk at the Monsoon Intra-seasonal Oscillation in the Bay of Bengal (MISO-BoB) PI meeting. 2020
- *Oceanic thermal fronts: their detection, regional dynamics, and potential role in regional ocean transport – as seen from space*. Seminar at Columbia University, Lamont-Doherty Earth Observatory. 2020
- *Applications of the FROnt Detection in the Ocean (FRODO) algorithm to satellite observations and ocean simulations*. Seminar at the University of New Hampshire, Center for Coastal and Ocean Mapping. 2020
- *Thermal fronts in the California Current System and beyond*. Seminar at the University of Washington, School of Oceanography. 2020
- *Patterns of SST fronts in the California Current System*. Seminar at the following institutions: Jet Propulsion Laboratory; Applied Physics Laboratory, University of Washington; Department of Atmospheric and Oceanic Sciences, UCLA; Scripps Institution of Oceanography, UC San Diego; Caltech. 2019

Workshops

- *Automated detection of SST fronts based on global satellite observations*. Poster presentation at the Coupled Ocean Surface Variables workshop, University of Washington 2018

AWARDS

GSO Alumni Award, University of Rhode Island	2015
Thomas and Kathy J. McNiff Scholarship, University of Rhode Island	2015

PROFESSIONAL SOCIETIES

American Geophysical Union
American Meteorological Society
The Oceanographic Society

SKILLS

Computer	MATLAB, LaTeX
Language	French (native), English (full proficiency), German (limited proficiency)

SCIENTIFIC ACTIVITIES

- Panelist for the '*International scholars in Geosciences*' panel, organized by the Asian Americans & Pacific Islanders in Geosciences (AAPiG) group 2022
- Chair of oral and poster sessions, '*Oceanic fronts observations and dynamics across different spatiotemporal scales*', Ocean Sciences Meeting (virtual) 2022
- AGU LANDInG Community Ambassador 2022
- Chair of oral session, '*Machine Learning in Coastal and Oceanographic Remote Sensing*', AGU Fall Meeting (virtual) 2021
- Reviewer for JGR Oceans, Remote Sensing of Environment 2018-2021
- NASA panel reviewer 2018-2021
- Outreach volunteer for the Scientist for a Day event, at JPL 2019
- Outreach speaker for the Science for March event, at Caltech 2019
- Volunteer at the National Sciences Bowl, at JPL 2019
- Volunteer at the National Ocean Sciences Bowl, at JPL 2019
- Organizer of the Ocean Science Element (OSE) biweekly seminar, at JPL 2018
- Outreach scientist for the Office of Marine Programs, at URI 2016
- Organizer of the Physical Oceanography weekly seminar 2011-2013