

CV- Alejandra Sanchez-Rios

Assistant Professor, Department of Oceanography, SOEST
UH at Mānoa, Honolulu, HI alesr@hawaii.edu ORCID: [0000-0003-2470-2480](https://orcid.org/0000-0003-2470-2480)

Professional Preparation

Organization	Degree	Year	Field
Oregon State University, Corvallis, OR	Ph.D.	2019	Earth, Ocean & Atmospheric Sci.
Univ. Autónoma de Baja California, Mexico	B.S.	2009	Marine Sciences

Appointments and Positions

2025–present	Assistant Professor , Dept. of Oceanography, SOEST, Univ. of Hawai‘i at Mānoa
2024–2025	Project Scientist , Scripps Institution of Oceanography, UC San Diego
2021–2024	Postdoctoral Researcher , Scripps Institution of Oceanography, UC San Diego (<i>Chancellor’s Postdoctoral Fellow, 2021</i>)
2019–2021	Postdoctoral Researcher , Institute of Oceanography, National Taiwan University
2011–2019	Graduate Research Assistant , Oregon State University (lateral/vertical mixing across ocean fronts; AUV operations)

Selected publications

- [1] Hilditch, J.P., Bergentz, K., Northcott, D., . . . , **Sanchez-Rios, A.**, et al. Observations of subduction, downward heat flux, and dense filament collapse in the northern Gulf of Mexico. *J. Geophys. Res.: Oceans*, 2025. DOI: 10.1029/2025JC022570
- [2] **Sanchez-Rios, A.**, Shearman, R.K., St. Laurent, L., Lee, L., Lucas, A., Ijichi, T., Simmons, H.L., and Jan, S. Characterization of mixing at the edge of a Kuroshio intrusion into the South China Sea: thermal variance diffusivity measurements. *J. Phys. Oceanogr.*, 54(3), 1121–1142, 2024.
- [3] **Sanchez-Rios, A.**, Truong, T.B., Wong-Ala, J.A.T.K., McCracken, M., and Treviño-Peña, M. Unpacking Diversity: a Grassroots Initiative and its Institutional Evolution. *Oceanography*, 36, 152–157, 2023.
- [4] Ballard, M.S., Sagers, J.D., Poulain, P.-M., MacKinnon, J., Lucas, A.J., and **Sanchez-Rios, A.** Out-of-plane arrivals recorded by drifting hydrophones during the NORSE Experiment. *J. Acoust. Soc. Am.*, 154(5), 2757–2768, 2023.
- [5] **Sanchez-Rios, A.**, Shearman, R.K., Klymak, J., D’Asaro, E., and Lee, C. Observations of cross-frontal exchange associated with submesoscale features along the North Wall of the Gulf Stream. *Deep-Sea Res. I*, 163, 103342, 2020.

Manuscript in prep

- [1] Ballard, M., **Sanchez-Rios, A.**, Taylor, R., et al. Hydrographic structure of the upper ocean in the central Nordic Seas and implications for acoustic propagation. *Submitted.*, 2025.
- [2] Dias Luko, C., MacKinnon, J., . . . , **Sanchez-Rios, A.**, et al. Heat convergence at submesoscale salinity fronts boosts SST, air-sea heat fluxes, and downward heat transport. *Submitted*, 2025.
- [3] **Sanchez-Rios, A.**, MacKinnon, J., Colosi, J., and Ballard, M. Where Does Spice Matter? A Global Diagnostic for Thermohaline Variability and its Acoustic Implications. *In preparation*.
- [4] **Sanchez-Rios, A.**, Chen, S., Chang, J., and Kida, S. Ambient Circulation Driven by Entrainment Coastal Currents: Linkage to Arrested Topographic Wave. *In preparation*.

Synergistic Activities

Selected Invited Talks

Mar 2026	Spice, Stratification and Sound: Observations of Fine-Scale Upper Ocean Variability. Ocean & Resources Engineering Dept., UH SOEST (invited).
Jun 2025	T-S variability and sound propagation, Jan Mayen Channel (NORSE). CEOAS, Oregon State Univ. (invited).
Jul 2023	Upper ocean spice and implications for acoustics. Stennis Naval Research Laboratory (invited).
Feb 2023	Upper ocean spice and implications for acoustics. Woods Hole Oceanographic Institution (invited).

Awards & Fellowships

2021 Chancellor's Postdoctoral Fellowship, UC San Diego 2018 Clara L. Simerville Award, OSU

Sea-Going Experience

2024 R/V *Thompson* — Watch Leader, Bay of Bengal. **EKAMSAT (ONR)**
2021–23 R/V *Neil Armstrong/ Alliance /Kronprins Haakon* — Science Crew, Norwegian Sea. **NORSE (ONR)**
2022 R/V *Pelican* — Co-Chief Scientist, Louisiana Shelf. **SUNRISE (NSF)**
2017 R/V *Roger Revelle* — Science Crew, South China Sea **ONR**

Courses Taught

OCN 480/680 Biophysical Interactions *Fall 2026*
OCN 312 Advanced Mathematics *Fall 2025*

Professional Service

Session Co-Chair, Ocean Sciences Meeting, Glasgow, UK (2026); Leader, GeoLatinas Community (2019–2023); Mentor, Científico Latino Mentorship Initiative (2019–2023); Workshop Facilitator, Gordon Research Conference on Ocean Mixing (2022); Member: AGU, GeoLatinas, MPOWIR, SACNAS.

Peer Reviewer

Journal of Physical Oceanography; Journal of Geophysical Research: Oceans; Deep-Sea Research I; Earth System Science Data.

Languages

Spanish (native); English (fluent).
