

# MATTHEW T. LUONGO

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## EDUCATION

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**Scripps Institution of Oceanography**  
**University of California, San Diego**

*San Diego, CA*

Ph.D., Climate Sciences

Expected 2025

M.S., Oceanography

2020

*Advisors:* Professors Shang-Ping Xie & Ian Eisenman

*Committee Members:* Professors Nicholas Lutsko, Jennifer Burney, & Shantong Sun

**Harvard University**

*Cambridge, MA*

A.B., Earth & Planetary Sciences, *Magna Cum Laude with Highest Honors*

2017

A.B., Engineering Sciences

*Advisor:* Professor Peter Huybers

*Thesis:* Comparison & Calibration of Climate Proxy Data in Medieval Europe

## EMPLOYMENT

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**Scripps Institution of Oceanography, UCSD**  
Graduate Student Researcher

Sep. 2019 - Present  
San Diego, CA

**Wildlands Trust**  
Research Assistant

Oct. 2018 - Sep. 2019  
Plymouth, MA

**West Monroe Partners**  
Energy & Utilities Experienced Consultant

Aug. 2017 - Sep. 2018  
New York, NY

**Harvard University, Dept. of Earth & Planetary Sciences**  
Undergraduate Research Assistant

Apr. 2015 - May 2017  
Cambridge, MA

## RESEARCH PUBLICATIONS

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### Published

4. **Luongo, M.T.**, Xie, S.-P., Eisenman, I., Hwang, Y.-T., & Tseng, H.-Y. (2023). A Pathway for Northern Hemisphere Extratropical Cooling to Elicit a Tropical Response. *Geophysical Research Letters*, 50, e2022GL100719. doi: [10.1029/2022GL100719](https://doi.org/10.1029/2022GL100719)
3. Lutsko, N.J., **Luongo, M.T.**, Wall, C.J., & Myers, T.A. (2022). Correlation Between Cloud Adjustments and Cloud Feedbacks Responsible for Larger Range of Climate Sensitivities in CMIP6. *Journal of Geophysical Research: Atmospheres*, e2022JD037486. doi: [10.1029/2022JD037486](https://doi.org/10.1029/2022JD037486)
2. **Luongo, M.T.**, Xie, S.-P., & Eisenman, I. (2022). Buoyancy Forcing Dominates the Cross-Equatorial Ocean Heat Transport Response to Northern Hemisphere Extratropical Cooling. *Journal of Climate*, 35(20), pp. 3071-3090. doi: [10.1175/JCLI-D-21-0950.1](https://doi.org/10.1175/JCLI-D-21-0950.1)
1. **Luongo, M.T.**, Kurbatov, A.V., Erhardt, T., Mayewski, P.A., McCormick, M., More, A.F., Spaulding, N.E., Wheatley, S.D., Yates, M.G., & Bohleber, P.D. (2017). Possible Icelandic Tephra Found in European Colle Gnifetti Glacier. *Geochemistry, Geophysics, Geosystems*, 18(11), pp. 3904-3909. doi: [10.1002/2017GC007022](https://doi.org/10.1002/2017GC007022)

## Accepted

1. Tseng, H.-Y., Hwang, Y.-T., Xie, S.-P., Kang, S.M., Tseng, Y.-H., **Luongo, M.T.**, & Eisenman, I. Fast and Slow Responses of the Tropical Pacific to Radiative Forcing in Northern High Latitude. Manuscript in press at *Journal of Climate*.

## In Review

1. **Luongo, M.T.**, Brizuela, N.G., Eisenman, I., & Xie, S.-P. Retaining Short-term Variability Reduces Biases in Wind Stress Overriding Simulations. Manuscript submitted to *Journal of Advances in Modeling Earth Systems (JAMES)*.

## PRESENTATIONS

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### Conference Presentations

4. AGU Fall Meeting, Chicago, IL, USA (Dec. 2022): *Surface and Subsurface Ocean Adjustment and Tropical Pattern Formation Responses to Extratropical Radiative Forcing*.
3. Scripps Student Symposium, La Jolla, CA, USA (Sep. 2022): *A Surface Pathway by which Northern Hemisphere Extratropical Cooling Elicits a Tropical Response*.
2. CalGFD, Pasadena, CA, USA (Aug. 2022): *A Surface Pathway by which Northern Hemisphere Extratropical Cooling Elicits a Tropical Response*.
1. AGU Fall Meeting, New Orleans, LA, USA (Dec. 2021): *The Ocean's Dynamic Response to Northern Hemisphere Cooling and Insights into Cross-Equatorial Energy Transport*.

### Conference Posters

2. Graduate Climate Conference, Pack Forest, WA, USA (Oct. 2022): *Coupled Ocean-Atmosphere Processes Lead to La Niña-like Steady-State Response to NH Extratropical Cooling*.
1. Graduate Climate Conference, Virtual (Oct. 2020): *Western European Heatwave Identified in Historical Texts and Paleoclimate Reconstructions*.

### Invited Presentations & Seminars

2. Equilibrium Climate Sensitivity & Cloud Feedback Symposium, Virtual (Aug. 2022): *A Surface Pathway by which Northern Hemisphere Extratropical Cooling Elicits a Tropical Response*.
1. NOAA Climate Sensitivity Task Force Meeting, Virtual (Mar. 2022): *Correlation between Cloud Adjustments and Cloud Feedbacks Responsible for Larger Range of Climate Sensitivities in CMIP6*.

## TEACHING EXPERIENCE

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**2x-Guest Lecturer (2022):** *SIOC 224– Numerical Modeling of the Climate System*, SIO, UCSD. Instructor: Ian Eisenman.

**Graduate Teaching Assistant (2021):** *SIO 173– Dynamics of the Atmosphere and Climate*, SIO, UCSD. Instructors: Shang-Ping Xie & Ian Eisenman.

**Undergraduate Teaching Assistant (2015-2017):** *PS 11– Frontiers and Foundations of Modern Chemistry: A Molecular and Global Perspective*, Department of Chemistry, Harvard University. Instructors: Jim Anderson & Gregg Tucci.

## HONORS & AWARDS

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<b>2022-2025</b>	FINESST Graduate Research Fellowship (NASA)
<b>2022</b>	Outstanding Teaching Assistant (SIO)
<b>2021</b>	GRFP Honorable Mention (NSF), Outstanding Student Mentor (SIO)
<b>2019-2020</b>	Regents Fellowship (UCSD)
<b>2017</b>	Hoopes Prize for Outstanding Senior Thesis Work (Harvard University)
<b>2015</b>	Undergraduate Summer Research Fellow (Harvard University Center for Environment)
<b>2013</b>	National Merit Program Commended Scholar, John Joseph Moakley Scholar
<b>2012</b>	Eagle Scout

## LEADERSHIP AND SERVICE

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### Seminar Series

SIO Climate Journal Club: Organizer (2020-present).

### Department Leadership

SIO Graduate Peer Mentor Program: Leadership Team (2021-2022), Mentor (2020-2022).

SIO Graduate Student Council: Climate Sciences Student Representative (2021-2022).

SIO GFD Faculty Search Committee: Student Member (2022).

### Peer Review

*Nature Communications* (1)

## COMPUTER SKILLS

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**Substantial Experience:** Matlab, Python, Fortran 77/90, R, ArcGIS

**Additional Experience:** C, HTML, Javascript

## GENERA

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**Memberships:** American Geophysical Union, Sierra Club, Wildlands Trust

**Languages:** English, Latin (8 years)

**Interests:** Camping, Hiking, Punk Rock, National Parks, Land Conservation, New England Sports, Vinyl Records, Amateur Fermentation