

August, 2024

# Yuan-Jen Lin

Postdoctoral Associate

Department of Atmospheric and Oceanic Sciences, University of Colorado Boulder

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## EDUCATION

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| <b>National Taiwan University</b>  | Taipei, Taiwan |
| Ph.D. in Atmospheric Sciences  | 2016 – 2022    |
| Thesis: “Climate feedback and the ocean: uncertainties and their interaction under global warming” |                |
| Advisor: Yen-Ting Hwang  |                |
| <b>National Taiwan University</b>  | Taipei, Taiwan |
| B.S. in Atmospheric Sciences   | 2012 – 2016    |

## RESEARCH EXPERIENCE AND EMPLOYMENT

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|---|----------------|
| <b>Postdoctoral Associate</b>   | 2024 - present |
| Department of Atmospheric and Oceanic Sciences, University of Colorado Boulder                              |                |
| <b>Postdoctoral Research Scientist</b>  | 2022 - 2024    |
| Center for Climate Systems Research, Columbia University<br>NASA Goddard Institute for Space Studies (GISS) |                |
| <b>Visiting Scholar</b>   | 2021 – 2022    |
| Atmospheric & Environmental Sciences, SUNY Albany (Host: Brian E. J. Rose)                                  |                |
| <b>Research Assistant</b>   | 2016 – 2021    |
| Atmospheric Sciences, National Taiwan University (Supervisor: Yen-Ting Hwang)                               |                |

## PEER-REVIEWED PUBLICATIONS

2023 **Lin, Yuan-Jen**, Brian EJ Rose, and Yen-Ting Hwang. “Mean state AMOC affects AMOC weakening through subsurface warming in the Labrador Sea.” *Journal of Climate* 36, no. 12 (2023): 3895-3915. <https://doi.org/10.1175/JCLI-D-22-0464.1>

2021 **Lin, Yuan-Jen**, Yen-Ting Hwang, Jian Lu, Fukai Liu, and Brian EJ Rose. “The dominant contribution of Southern Ocean heat uptake to time-evolving radiative feedback in CESM.” *Geophysical Research Letters* 48, no. 9 (2021): e2021GL093302. <https://doi.org/10.1029/2021GL093302>

2019 **Lin, Yuan-Jen**, Yen-Ting Hwang, Paulo Ceppi, and Jonathan M. Gregory. “Uncertainty in the evolution of climate feedback traced to the strength of the Atlantic meridional overturning circulation.” *Geophysical Research Letters* 46, no. 21 (2019): 12331-12339. <https://doi.org/10.1029/2019GL083084>

*in review.* **Lin, Yuan-Jen**, Gregory V. Cesana, Cristian Proistosescu, Mark D. Zelinka, and Kyle C. Armour. “The relative importance of forced and unforced temperature patterns in driving the time variation of low-cloud feedback.” (in review, *Journal of Climate*)

*in prep.* **Lin, Yuan-Jen** and co-authors. “Intermodel spread of radiative feedback patterns traced to regional surface warming using NASA GISS ModelE3 Green’s Function.”

## PRESENTATIONS

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- Seminar, Department of Atmospheric Science, Colorado State University Jan 2024  
“The relative importance of forced and unforced temperature patterns in driving the time variation of low-cloud feedback”
- NCAR Climate and Global Dynamics Laboratory (CGD) Seminar Jan 2024  
“The relative importance of forced and unforced temperature patterns in driving the time variation of low-cloud feedback”
- Atmospheric & Climate Dynamics Seminar, University of Washington Nov 2023  
“The relative importance of forced and unforced temperature patterns in driving the time variation of low-cloud feedback”
- SEAS Colloquium in Climate Science (SCiCS), Columbia University Apr 2022  
“Understanding changing ocean circulation and its role in modifying climate sensitivity”
- Lightning Talk at the 15th ECS symposium Feb 2022  
“The dominant contribution of Southern Ocean heat uptake to time-evolving radiative feedback in CESM”
- Climate Seminar, University at Albany (SUNY) Oct 2021  
“The role of ocean in the time-evolving radiative feedbacks”
- CASPO Seminar, Scripps Institution of Oceanography Nov 2020  
“Understanding the role of ocean in modifying time-evolving radiative feedback”

## HONORS AND AWARDS

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- 2022 Chou Chia Publication Award: Lin et al. (2021) (doi: 10.1029/2021GL093302)
- 2021 Chou Chia Publication Award: Lin et al. (2019) (doi: 10.1029/2019GL083084)
- \*Chou Chia Publication Award is an annual award for climate related publication in Taiwan, in memory of the climate scientist Chou Chia.*
- 2019 Best Presentation Award | Atmospheric Sciences Annual Meeting, Taoyuan, Taiwan.
- 2017 Best Presentation Award | Atmospheric Sciences Annual Meeting, Miaoli, Taiwan.

## GRANT FUNDING

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- Graduate Student Study Abroad Program, Ministry of Science and Technology, Taiwan 2021-2022  
*The grant supports my one-year research visit at SUNY Albany.*

## SELECTED CONFERENCE PRESENTATIONS

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- CFMIP/CLIVAR Meeting on Clouds, Circulation and Climate, Chestnut Hill, MA. Jun 2024  
(poster) *Intermodel spread of radiative feedback patterns traced to regional surface warming using NASA GISS ModelE3 Green's Function*
- Workshop on Confronting Earth System Model Trends with Observations, Boulder, CO. Mar 2024  
(oral) *The relative importance of forced and unforced temperature patterns in driving the time variation of low-cloud feedback*
- CFMIP-GASS Meeting on Cloud, Precipitation, Circulation & Climate Sensitivity, France. Jul 2023  
(poster) *The relative importance of forced and unforced temperature patterns in driving the time variation of low-cloud feedback*
- AGU Fall Meeting, Chicago, IL. Dec 2022  
(oral) *Mean state AMOC affects AMOC weakening through subsurface warming in the Labrador Sea*

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| The Pattern Effect Workshop, Boulder, CO.<br><i>(poster) The role of ocean in modifying SST pattern formation and time-evolving radiative feedback</i>   | May 2022 |
| US AMOC Science Team Meeting, Woods Hole, MA.<br><i>(poster) Mean state AMOC affects AMOC weakening through subsurface warming in the Labrador Sea</i>   | Apr 2022 |
| CFMIP Annual Meeting on Clouds, Precipitation, Circulation & Climate Sensitivity, Online.<br><i>(poster) The role of ocean in the time-evolving radiative feedbacks</i>  | Sep 2021 |
| AGU Fall Meeting, Online.<br><i>(oral) Attributing Radiative Feedback Evolution to Regional Ocean Heat Uptake</i>  | Dec 2020 |
| East Asian Workshop on Climate Dynamics, Busan, Korea.<br><i>(oral) Uncertainty in the Evolution of Climate Feedback Traced to the Strength of the Atlantic Meridional Overturning</i>                                 | May 2019 |
| CFMIP Annual Meeting on Clouds, Precipitation, Circulation, & Climate Sensitivity, CO.<br><i>(oral) Uncertainty in the Evolution of Climate Feedback Traced to the Strength of the Atlantic Meridional Overturning</i> | Oct 2018 |
| Atmospheric Sciences Annual Meeting, Miaoli, Taiwan.<br><i>(poster) Responses to Greenhouse Gas Forcing and their Influence on Global and Regional Climate Change in CMIP5 GCMs</i>                                    | Feb 2017 |

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## LEADERSHIP AND SERVICE

### Peer Review

Geophysical Research Letters  
 Journal of Climate  
 Journal of Advances in Modeling Earth Systems  
 Nature Geoscience  
 Nature Communications  
 Communications Earth & Environment

**Executive Committee Member of Climate Seminar**, University at Albany, SUNY. (2021-2022)

**Volunteer Staff**, CFMIP Annual Meeting. (2021)

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## TEACHING AND MENTORING EXPERIENCE

**Teaching Assistant**, National Taiwan University  
 Climate Science (Spring 2021, Spring 2020, Fall 2018, Fall 2016)  
 An Introductory Survey to Atmospheric Science Research (Spring 2018, Spring 2017)

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## SKILL MATRIX

**Programming Languages:** Python (proficient), Fortran, Matlab  
**Shell Scripting:** Bash  
**Version Control:** Git  
**GCMs:** Community Earth System Model (CESM), NASA GISS ModelE  
**High Performance Computing:** Intel Compiler, PBS, Slurm Workload Manager  
**Data Analysis/Visualization:** Python (xarray, numpy, scipy, matplotlib, etc.), Cloud computing (Pangeo), Climate Data Operators (CDO), NetCDF Operators (NCO), NCAR Command Language (NCL), Matlab