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Yuan-Jen Lin

Postdoctoral Research Scientist
Center for Climate Systems Research, Columbia University | NASA Goddard Institute for Space Studies (GISS)
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Education

National Taiwan University — 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

National Taiwan University — Taipei, Taiwan
B.S. in Atmospheric Sciences — 2012 – 2016

Research experience and employment

Postdoctoral Research Scientist — 2022 - present
Center for Climate Systems Research, Columbia University
NASA Goddard Institute for Space Studies (GISS)

Visiting Scholar — 2021 – 2022
Atmospheric & Environmental Sciences, SUNY Albany (Host: Brian E. J. Rose)

Research Assistant — 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. "SST Green's Function in NASA GISS ModelE3."

Presentations

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

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

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

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

The Pattern Effect Workshop, Boulder, CO. May 2022
(poster) The role of ocean in modifying SST pattern formation and time-evolving radiative feedback

US AMOC Science Team Meeting, Woods Hole, MA. Apr 2022
(poster) Mean state AMOC affects AMOC weakening through subsurface warming in the Labrador Sea

CFMIP Annual Meeting on Clouds, Precipitation, Circulation & Climate Sensitivity, Online. Sep 2021
(poster) The role of ocean in the time-evolving radiative feedbacks

AGU Fall Meeting, Online. Dec 2020
(oral) Attributing Radiative Feedback Evolution to Regional Ocean Heat Uptake

East Asian Workshop on Climate Dynamics, Busan, Korea. May 2019
(oral) Uncertainty in the Evolution of Climate Feedback Traced to the Strength of the Atlantic Meridional Overturning

CFMIP Annual Meeting on Clouds, Precipitation, Circulation, & Climate Sensitivity, CO. Oct 2018
(oral) Uncertainty in the Evolution of Climate Feedback Traced to the Strength of the Atlantic Meridional Overturning

Atmospheric Sciences Annual Meeting, Miaoli, Taiwan. Feb 2017
(poster) Responses to Greenhouse Gas Forcing and their Influence on Global and Regional Climate Change in CMIP5 GCMs

Leadership and service

Peer Review
Geophysical Research Letters
Journal of Climate
Nature Geoscience
Journal of Advances in Modeling Earth Systems (JAMES)

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

Volunteer Staff, CFMIP Annual Meeting. (2021)

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)

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