

Yan-Ting Chen

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Research Interests

Climate change, radiation-circulation coupling, radiation variability, thermodynamic and dynamic control of convection

Education

- 2019 – **PhD in Atmospheric & Oceanic Sciences**, McGill University. Montreal, Canada.
Supervisors: Prof. Yi Huang and Dr. Timothy Merlis
- 08/2023 – **Visiting Student Research Collaborator**, Princeton University. New Jersey, USA.
- 2018 **MSc in Atmospheric Sciences**, National Taiwan University (NTU). Taipei, Taiwan.
Supervisor: Prof. Chien-Ming Wu
- 2016 **BSc in Physics**, National Tsing Hua University (NTHU). Hsinchu, Taiwan.

Publications

- **Chen, Y.-T.**, T. M. Merlis, and Y. Huang. The cause of negative CO₂ forcing at the top-of-atmosphere: the role of stratospheric vs. tropospheric temperature inversions (submitted). [\[Preprint\]](#)
- **Chen, Y.-T.**, Y. Huang, and T. M. Merlis (2023). The global patterns of instantaneous CO₂ forcing at the top-of-atmosphere and surface. *J. Climate*, **36**, 6331–6347, doi:10.1175/JCLI-D-22-0708.1 [\[Official version\]](#)
- **Chen, Y.-T.**, and C.-M. Wu (2019). The role of interactive SST in the cloud-resolving simulations of aggregated convection. *J. Adv. Model. Earth Syst.*, **11**. doi:10.1029/2019MS001762 [\[Official version\]](#)
- **Chen, Y.-T.** (2018). Aggregation or no aggregation and beyond: from a cloud-resolving model perspective. Master thesis, National Taiwan University, Dept. of Atmospheric Sciences.

Honors and Awards

- **Graduate Mobility Award** – McGill University, 04/2023
- **Outstanding Student Oral Presentation Award** – 16th Conference on Atmospheric Radiation, American Meteorological Society, 08/2022
- **Stephen & Anastasia Mysak Fellowship** – McGill AOS Department Award, 09/2021–08/2024
- **Graduate Excellence Award** – McGill University, 09/2019–08/2021.
- **Travel Grant** – 2nd ICTP Summer School on Theory, Mechanisms and Hierarchical Modelling of Climate Dynamics: Convective Organization and Climate Sensitivity, 07/2019.

- **Student Poster Award** – Second Place, APEC Typhoon Symposium, 05/2018.
- **Student Research Fellowship** – Summer Student Program, Institute of Physics, Academia Sinica, 07/2015–09/2015.

Invited Talk

- How Low can CO₂ Forcing Go, ECS Virtual Symposia, 08/2023
- A Minimal Recipe of Instantaneous CO₂ Forcing, National Taiwan University, 06/2023

Professional Services

- Journal Reviewer for *Journal of Advances in Modeling Earth Systems*

Teaching Experience

Fall 2020– **TA, ATOC 185, 184, 214, 181**, McGill University.

Fall 2017 **TA, Atmospheric Thermodynamics**, NTU.

Spring 2016 **TA, General Physics Laboratory**, NTHU.

Selected Academic Activities

- Radiation and Climate, Gordon Research Conference – Poster Presentation, 07/2023
- Princeton Center for Theoretical Science Workshop: From Spectroscopy to Climate – Poster Presentation, 08/2022
- AMS Collective Madison Meetings – Oral Presentation, 08/2022
- AMS Annual Meeting – Oral presentation, 01/2022
- AGU Fall Meeting – Poster presentation, 12/2021
- CFMIP Virtual Meeting – Poster presentation, 09/2021
- 2nd ICTP Summer School on Theory, Mechanisms and Hierarchical Modelling of Climate Dynamics: Convective Organization and Climate Sensitivity, 07/2019