

HENG QUAN (权衡)

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EDUCATION

Princeton University

Sep. 2022 - now

PhD in Atmospheric and Oceanic Sciences Program

Peking University

Sep. 2018 - Jul. 2022

Bachelor of Atmospheric Sciences (School of Physics)

- Overall GPA: **3.85/4.00** or **91/100**
- Ranking: **9/176, top 5%** (physics school) or **1/14** (atmospheric sciences department)

PUBLICATIONS

Quan, H., Zhang, Y., & Fueglistaler, S. (2025). Weakening of tropical free tropospheric temperature gradients with global warming. *Journal of the Atmospheric Sciences*, 82(1): 31-43.

Quan, H., Fueglistaler, S., Zhang, B., & Wang, C. The Sea Surface Temperature Pattern Effect on Outgoing Longwave Radiation: the Role of Large-scale Convective Aggregation. (under review).

Quan, H., Koll, D., Lutsko, N., & Yuval, J. Optimal Solar Geoengineering Strategies Based on Reinforcement Learning (submitted).

Quan, H., Fueglistaler, S., Zhang, B., & Wang, C. (2024). Non-linear radiative response to patterned global warming due to convection aggregation and non-linear tropical dynamics. *Journal of Climate*, 37(21): 5675-5686.

Quan, H., Zhang, B., Bourguet, S., Linz, M., & Chen, G. (2023). How Do Different Processes Shape Temperature Probability Distributions? A Percentile-averaged Temperature Tendency Decomposition. *Journal of Climate*, 36(15): 5179-5196.

Quan, H., Chai, W., & Fu, Z. (2022). Asymmetry of daily mean temperature series over China and its frontal mechanism. *International Journal of Climatology*, 42(3), 1828-1840.

Chai, W., Huang, Y., Yang, L., **Quan, H.**, & Fu, Z. (2021). Evaluation of re-analyses over China based on the temporal asymmetry of daily temperature variability. *Theoretical and Applied Climatology*, 1-13.

TALKS

AGU 2024, Washington D.C.

Weakening of tropical free tropospheric temperature gradients with global warming

ICDM Workshop 2024, Nanjing

Weaker temperature gradient in a warmer climate

AOFD 2024, Burlington

Weaker temperature gradient in a warmer climate

CFMIP 2024, Boston

SST pattern effect on OLR: The role of convection aggregation

AGU 2023, San Francisco

Non-linear radiative response to patterned global warming due to convection aggregation

POSTERS

AGU 2024, Washington D.C.

Weakening of tropical free tropospheric temperature gradients with global warming

Gordon Research Conference on Radiation and Climate 2023, Maine

Non-linear radiative response to patterned global warming due to convection aggregation

CFMIP-GASS 2023, Paris

Non-linear radiative response to patterned global warming due to convection aggregation

AWARDS & HONORS

PhD (2022-now):

Best Student Oral Presentation Award in the 2024 ICDM workshop

Undergraduate (2018-2022):

National Scholarship (**top 1%** among 176 students, 2021)

Merit Student Pacesetter (2021)

POSCO Asia Scholarship (**top 3%** among ~180 students, **awarded three times** in 2019,2020 and 2021)

Outstanding bachelor student in Beijing (**10** among 176 students, 2022)

Weiming bachelor student (**7** among 176 students, 2022)

EXTRACURRICULAR ACTIVITIES

Was the **leader of Peking University GO Chess Team** for 2 years, and won **2 champions** in Beijing GO Chess University League, 2019-2021

Was the **president of Peking University GO Chess Club** for 2 years, and organized weekly club activities and the annual PKU GO Chess Cup, 2019-2021