

Jianan Chen

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EDUCATION

Hong Kong University of Science and Technology

Feb. 2021 -

PhD student in Atmospheric Environmental Science

Supervisor: Prof. Xiaoming Shi

Imperial College London

Mar. 2024 - Sept. 2024

Visiting PhD student in atmospheric physics

Supervisor: Prof. Ralf Toumi

The University of Manchester

Sept. 2018 - June 2020

Bachelor of Science in Environmental Science (Atmospheric Science)

Thesis advisor: Prof. Geraint Vaughan

Nanjing University of Information Science and Technology

Sept. 2015- June 2018

Bachelor of Science in Atmospheric Science

PUBLICATIONS AND PRESENTATIONS

Chen, J. and Shi. X, (2024). Evaluation for the Impacts of Numerical Advection Schemes and Turbulence Modeling on Gray-Zone Simulation of a Squall Line. *Under review*.

Chen, J. and Shi. X, (2023). Quantifying Global-Warming Response of the Orographic Precipitation in a Typhoon Environment with Large-Eddy Simulations. *Journal of Climate*. DOI:<https://doi.org/10.1175/JCLI-D-23-0018.1>

Shi, X., Y. Liu, **Chen J.**, H. Chen, Y. Wang, Z. Lu, R.Q. Wang, J. Fung, C. W.W. Ng, 2024: Escalating Tropical Cyclone Precipitation Extremes and Landslide Hazards in South China under Global Warming. *npj Climate and Atmospheric Science*

Chen, J. and Shi. X, (2023). Assessing the Impact of Turbulence Parameterization and Advection Schemes on Gray Zone Simulations of Squall Lines. *Poster Presentation. AGU Fall Meeting 2023*, December 2023 (San Francisco, California, U.S.)

Chen, J. and Shi. X, (2023). Pseudo Seeder-feeder Mechanism in Orographic Precipitation in a Typhoon Environment and its Response to Global Warming. *Poster Presentation. Asia Oceania Geosciences Society Annual Meeting 2023*, August 2023 (Singapore, Singapore)

Chen, J. and Shi. X, (2022). LES Study of the Interaction between Mountain Waves and Typhoon Outer Region Rainfall under Global Warming. *Oral Presentation. AGU Fall Meeting 2022*, December 2022 (Chicago, Illinois, U.S.)

Chen, J. and Shi. X, (2022). Quantifying the Global-Warming Response of the Orographic Precipitation in a Typhoon Environment with Large-Eddy Simulations. *Oral Presentation. AMS 20th Conference on Mountain Meteorology*, June 2022 (Park City, Utah, U.S.)

TEACHING

Teaching Assistant. Division of Environment and Sustainability, HKUST 2023 Spring
Climate Change: Science, Policy and Management (Instructor: Prof. Xiaoming Shi)

Teaching Assistant. Division of Environment and Sustainability, HKUST 2022 Fall
Climate Change Impacts and Extreme Weather Events (Instructor: Prof. Eun Soon IM)

Teaching Assistant. Division of Environment and Sustainability, HKUST 2022 Spring
Introduction to Sustainability (Instructor: Prof. Xiaoming Shi)

PROFESSIONAL SKILLS

Programming Language

Python Matlab Fortran

Atmospheric Models

Cloud Modeling 1 (CM1), Weather Research and Forecasting Model (WRF)

AWARDS

HKUST RedBird Academic Excellence Award for PhD students

HKSAR Government Scholarship Fund – Endeavour Merit Award

Oversea Research Award

Research Travel Grant Award (University Grants Committee, Hong Kong, SAR)

First Class Honor Bachelor Degree from The University of Manchester, UK