

# Chen Jianan

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## EDUCATION

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<b>Hong Kong University of Science and Technology</b> PhD student in Atmospheric Environmental Science Supervisor: Prof. Xiaoming Shi	Feb. 2021 - Feb. 2025
<b>Imperial College London</b> Visiting PhD student in atmospheric physics Supervisor: Prof. Ralf Toumi	Mar. 2024 - Aug. 2024
<b>The University of Manchester</b> Bachelor of Science in Environmental Science (Atmospheric Science) Thesis advisor: Prof. Geraint Vaughan	Sept. 2018 - June 2020
<b>Nanjing University of Information Science and Technology</b> Bachelor of Science in Atmospheric Science	Sept. 2015 - June 2018

## ACADEMIC POSITIONS

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<b>The University of Hong Kong</b> Post Doctoral Fellow, Department of Earth Sciences Supervisor: Prof. Dazhi Xi	Feb. 2025 - present
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## PUBLICATIONS

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**Chen. J.**, Toumi. R., L. Zhang, M. Lu, D. Xi, Shi. X., (2025). Radial Rainfall Pattern Changes of Intense Over-Ocean Tropical Cyclones under Global Warming: Insights from an MRI HighRes CMIP6 Simulation *Geophysical Research Letters*. <https://doi.org/10.1029/2025GL116146>.

**Chen, J.** and Shi. X., (2025). Impacts of Numerical Advection Schemes and Turbulence Modeling on Gray-Zone Simulation of a Squall Line *Monthly Weather Review*. <https://doi.org/10.1175/MWR-D-24-0174.1>.

**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*. <https://doi.org/10.1038/s41612-024-00654-w>

## CONFERENCES

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**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

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**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

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### Programming Language

Python Matlab Fortran

### Atmospheric Models

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

## AWARDS

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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)

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