

XIANPU JI

Ocean College ◇ 1 Xikang Road ◇ Nanjing, Jiangsu Province ◇ China ◇ 210098
(+86) 17551575179 ◇ xianpuji@hhu.edu.cn ◇ Researchgate

RESEARCH INTERESTS

Convectively coupled equatorial waves; Numerical model; Tropical cyclone; Deep learning

EDUCATION

Hohai University Ph.D student	<i>September 2023 - present</i>
Hohai University M.S student	<i>September 2021 - June 2023</i>
Jiangsu Ocean University B.S	<i>September 2017 - June 2021</i>

PAPERS

Academic journal Ji X, Song X, Guo A, Liu K, Cao H, Feng T. Oceanic Precipitation Nowcasting Using a UNet-Based Residual and Attention Network and Real-Time Himawari-8 Images. Remote Sensing. 2024; 16(16):2871. https://doi.org/10.3390/rs16162871	<i>2024.08.04</i>
--	-------------------

Academic journal Ji X, Sha Y, Feng T, Li J. Regionalization of Precipitation and Associated Atmospheric Background Environmental Characteristics Over the Tropical Oceans. Journal of Xiamen University (Natural Science). 2024; 63(03):492-503. (In Chinese)	<i>2024.02.21</i>
---	-------------------

Academic journal Ji, X. ; Feng, T., Convectively coupled Kelvin waves in CMIP6 coupled climate models. (The paper is written and will be submitted to Climate Dynamics in November.)	<i>2024.09.30</i>
--	-------------------

Academic journal Ji, X. ; Feng, T., Potential vorticity budget during the transition from mixed Rossby gravity waves to Tropical Depression type disturbances in a convection permitting simulation. (The editor suggested revising and resubmitting to the Journal of Atmospheric Sciences, in preparation.)	<i>2024.08.31</i>
---	-------------------

Software copyright Short term nowcasting software for oceanic heavy precipitation, China Software Copyright	<i>2024.03.26</i>
---	-------------------

CONFERENCE AND PRESENTATION

Oral and Poster presentation The 4th National Postgraduate Ocean and Climate Academic Forum for Future Scientists	<i>2023.10.21</i>
---	-------------------

Oral presentation Asia Oceania Geosciences Society (AOGS)	<i>2023.08.02</i>
---	-------------------

Poster presentation Jiangsu Marine Science and Technology Innovation and Blue Carbon Economic Development Forum	<i>2022.12.02</i>
---	-------------------

PROJECT EXPERIENCE

1. Potential vorticity budget during the transition from mixed Rossby gravity waves to Tropical Depression type disturbances in a convection permitting simulation *2021-2022*

- Gained experience with WRF simulation
- Analyzed and visualized WRF output with NumPy, Xarray, netCDF4, and Matplotlib
- Compiled and ran WRF on high performance computing machines
- Analyze the results using the potential vorticity budget equation

2. Oceanic Precipitation Nowcasting Using a UNet-Based Residual and Attention Network and Real-Time Himawari-8 Images *2022-2023*

- Gained experience with the Unet deep learning framework based on Tensorflow

3. Regionalization of precipitation and associated atmospheric background environmental characteristics over the tropical oceans *2022-2023*

- Analyze the results using the moist static energy budget equation

4. Convectively coupled Kelvin waves in CMIP6 coupled climate models *2023-2024*

- Gain experience analyzing CMIP6 model data
- Batch processing data using cdo and analyzing data using python

SKILLS

Programming Languages and Tools

Python, WRF, Tensorflow, Cdo, Shell

Languages

Chinese, English(CET-6)

AWARDS

Huawei Cup 20th China Postgraduate Mathematical Contest in Modeling *2023.12*
Second Prize

Academic scholarships *2023.12*

Academic scholarships *2022.12*

Provincial Government Scholarship Program of Overseas Studies for Undergraduates
2019.08

Funding to study GIS at the St. Louis University Summer Scholars Program, USA