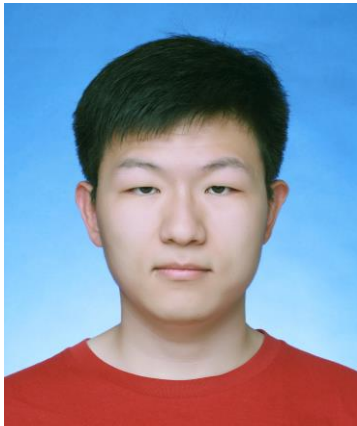




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研究方向 人工智能海洋学、海洋遥感、台风监测预报、海洋人工智能大模型

ResearchGate 个人主页: <https://www.researchgate.net/profile/Chong-Wang-63/research>

个人简介

长期从事基于卫星图像和深度学习的台风监测预报研究, 在台风关键信息提取、预报等方面取得了丰硕的成果。包括基于卷积神经网络从卫星图像上反演台风强度、基于模型知识指导的台风强度智能预报、基于卫星图像的不对称风圈半径智能反演方法、基于跨领域知识迁移的台风中心智能定位、基于深度学习的台风路径集合预报等。主持 2024 年度国家资助博士后研究人员计划 C 档资助, 参与多项国家重点研发项目。

目前主要关注海洋人工智能大模型、通用台风人工智能模型的研发。

教育背景

2021.09 - 2024.07	中国科学院大学	物理海洋学	理学博士
2018.09 - 2021.07	河海大学	物理海洋学	理学硕士
2014.09 - 2018.07	河海大学	海洋科学	理学学士

工作经历

2024.08 - 至今	中国科学院海洋研究所	助理研究员
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论文著作

- [1] **C. Wang**, G. Zheng, X. Li, et al., "Tropical cyclone intensity estimation from geostationary satellite imagery using deep convolutional neural networks," IEEE Transactions on Geoscience and Remote Sensing, vol. 60, pp. 1-16, 2021.
- [2] **C. Wang**, X. Li, and G. Zheng, "Tropical cyclone intensity forecasting using model knowledge guided deep learning model," Environmental Research Letters, vol. 19, no. 2, pp. 024006, 2024.

- [3] **C. Wang** and X. Li, "A deep learning model for estimating tropical cyclone wind radius from geostationary satellite infrared imagery," *Monthly Weather Review*, vol. 151, no. 2, pp. 403-417, 2023.
- [4] **C. Wang** and X. Li, "Developing a data-driven transfer learning model to locate tropical cyclone centers on satellite infrared imagery," *Journal of Atmospheric and Oceanic Technology*, vol. 40, no. 12, pp. 1605-1618, 2023.
- [5] **C. Wang**, Q. Xu, Y. Cheng, Y. Pan, and H. Li, "Ensemble forecast of tropical cyclone tracks based on deep neural networks," *Frontiers of Earth Science*, vol. 16, no. 3, pp. 671-677, 2022.
- [6] **C. Wang** and X. Li, "Deep learning in extracting tropical cyclone intensity and wind radius information from satellite infrared images—A review," *Atmospheric and Oceanic Science Letters*, pp. 100373, 2023.
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- [8] **C. Wang**, Q. Xu, X. Li, G. Zheng, B. Liu, and Y. Cheng, "An objective technique for typhoon monitoring with satellite infrared imagery," in *2019 PIERS-Fall, 2019: IEEE*, pp. 3218-3221.
- [9] **C. Wang**, Q. Xu, X. Li, and Y. Cheng, "CNN-based tropical cyclone track forecasting from satellite infrared images," in *IGARSS 2020-2020 IEEE International Geoscience and Remote Sensing Symposium, 2020: IEEE*, pp. 5811-5814.
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- [11] N. Yang, **C. Wang**, X. Li. "Improving tropical cyclone precipitation forecasting with deep learning and satellite image sequencing," *Journal of Geophysical Research: Machine Learning and Computation*, 2024, vol. 1, no. 2,: e2024JH000175.
- [12] S. Mu, X. Li, H. Wang, G. Zheng, W. Perrie, **C. Wang**. "High-resolution Tropical Cyclone Rainfall Detection from C-band SAR Imagery with Deep Learning," *IEEE Transactions on Geoscience and Remote Sensing*, 2024.
- [13] N. Yang, **C. Wang**, X. Li. "Evaluation of precipitation forecasting methods and an advanced lightweight model," *Environmental Research Letters*, 2024, vol. 19, no. 9,: e2024JH000175.

授权专利

- [1] **王充**, 徐青, 2022 年 7 月。基于深度学习的台风强度遥感反演方法。发明专利, 公告号: CN 112069955 B

- [2] 徐青, **王充**, 2022 年 8 月。基于融合神经网络的台风路径预报方法、系统、介质及终端。发明专利, 公告号: CN 112785034 B

项目课题

1. 2024 年度国家资助博士后研究人员计划 C 档资助:基于人工智能的台风通用预报方法研究 (GZC20241741) , **主持**
2. 国家重点研发计划“海洋大数据分析预报技术研发”课题五“典型海洋现象大数据分析预报技术” (2016YFC1401900) , **参与**

荣誉奖励

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|------|-------------------|
| 2024 | 中国科学院大学, “三好学生标兵” |
| 2021 | 河海大学, “优秀毕业论文” |
| 2021 | 河海大学, “优秀毕业生” |
| 2020 | 国家奖学金 |