

Xiaojuan Qian

Postdoctoral researcher, Coastal Hydrodynamics Lab, Korea University
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EDUCATION

Korea University, Seoul, Republic of Korea
Ph.D. in Civil, Environmental and Architectural Engineering

Sep. 2019 — Aug. 2025

Zhejiang Ocean University, Zhejiang, China
Bachelor of Engineering: Harbors, Water Channels and Coastal Engineering

Sep. 2015 — June. 2019

EMPLOYMENT

Korea University, Seoul, Republic of Korea
Postdoctoral researcher

Sep. 2025 — Now

RESEARCH SCOPE

Interests

Hydrodynamics Process, Tropical Cyclone, Compound Flood, Typhoon Rainfall, Hydrological Response

Topics

- The Effect of Typhoon Movement and Coastal Geometry on Storm Surge Risk
- Stochastic Generation of Tropical Cyclone Rainfall
- Examining the Role of Tropical Cyclone Motion in Coastal Compound Flooding
- Long-term Trend on Hydrological Characteristics of Basin

PUBLICATIONS

Journal Papers

- **Qian, Xiaojuan**, Hwang, Sooncheol, & Son, Sangyoung. (2024). A Study on Key Determinants in Enhancing Storm Surges Along the Coast: Interplay Between Tropical Cyclone Motion and Coastal Geometry. *Journal of Geophysical Research: Oceans*, 129(2), e2023JC020400.
- Youn, Jihyeon., Hwang, Sooncheol, **Qian, Xiaojuan**, Im, Sehyuk., & Son, Sangyoung (2026). A Random Forest-based Method for Reconstructing Pressure Fields in Tropical Cyclones from Wind Data. *Atmospheric Research*, 330, 108588.
- **Qian, Xiaojuan**, et al. (2018). Preliminary Study on the Sediment Transportation under the Second Phases of the Reclamation and Training Projects in the Bodaozui of Zhoushan. *IOP Conference Series: Earth and Environmental Science*, 191(1).

Selected Conference Proceedings

- **Qian, Xiaojuan**, & Son, Sangyoung (2025). Examining the Role of Tropical Cyclone Rainfall Motion in Coastal Compound Flooding. *Coastal Engineering Proceedings*, (38), management.227.
- **Qian, Xiaojuan**, & Son, Sangyoung (2023). The Effect of Tropical Cyclones' Translation Speeds and Landfall Angles on Maximum Surge Heights Along Idealized Coasts. *Coastal Engineering Proceedings*, (37), management.127.
- Son, Sangyoung, & **Qian, Xiaojuan**. (2023). On the effect of tropical cyclones' translation speed and landfall trajectory on the storm surge dynamics (EGU23-16745). *EGU23*. Copernicus Meetings.

HONORS & AWARDS

IPESK Next Generation Researcher Institute for Promotion of Engineering and Science of Korea (IPESK)	Sep. 2025 Korea
Excellence Award, Future Marine Science and Technology Award The Korean Association of Ocean Science and Technology Societies	May. 2025 Busan, Korea
Best Paper Awards Korean Society of Coastal and Ocean Engineers	Feb. 2025 Seoul, Korea
KU-Hydro Jr. Fellow School of Civil, Environmental and Architectural Engineering, Korea University	May. 2024 Seoul, Korea
BK21FOUR KU-GAG Scholarship Office of Graduate School, Korea University	Feb. 2024 Seoul, Korea
Outstanding KU-ACE Student Award School of Civil, Environmental and Architectural Engineering, Korea University	Dec. 2023 Seoul, Korea
Foreign Natural Science and Engineering Scholarship Graduate School, Korea University	Mar. 2020 — June. 2022 Seoul, Korea
Best Presentation Awards Korea Water Resources Association	June. 2021 Kwangju, Korea
Best Paper Awards Water Engineering Conference, Korea University	Dec. 2020 Seoul, Korea

ACADEMIC PRESENTATIONS

Oral presentation

- APAC 2025 (International Conference on Asian and Pacific Coasts), Busan, Korea Nov. 2025
- Joint Conference of The Korean Association of Ocean Science and Technology Societies, Busan, Korea May. 2025
- 7th Water Engineering Conference, Korea University, Korea Nov. 2024
- International Conference on Coastal Engineering, Sydney, Australia Dec. 2022
- EGU23 General Assembly, European Geosciences Union, online Apr. 2023
- 2023 Future-shaping ACE Congress, Korea University Nov. 2023
- Korean Society of Hazard Mitigation Conference, Online Sep. 2021
- Korean Water Resources Association Conference, Kwangju, Korea June. 2021
- 5th Water Engineering Conference, Online, Korea University, Korea Dec. 2022
- 4th Water Engineering Conference, Online, Korea University, Korea Dec. 2021
- 3rd Water Engineering Conference, Online, Korea University, Korea Dec. 2020

Poster

- 6th Water Engineering Conference, Online, Korea University, Korea Dec. 2023
- Korean Wetlands Society Annual Conference, Munkyeong, Korea Nov. 2021