

Seonyu Kang

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CURRICULUM
VITAE

RESEARCH INTERESTS

Deep learning-based coupled ocean–atmosphere dynamical models

Mechanism analysis of East Asian megadroughts and Ocean–Atmosphere interactions

EDUCATION

Master of Natural Science (M.S.) — Oceanography 2022
Chonnam National University, Gwangju, South Korea

Bachelor of Natural Science (B.S.) — Earth and Marine Sciences 2015
Jeju National University, Jeju, South Korea

RESEARCH EXPERIENCE

Researcher 2022 – April 2024
Korea Institute of Science and Technology (KIST), Center for Sustainable Environment Research

PUBLICATIONS

- [2] Cheon, M., Kim, J. H., Choi, Y., Choi, Y. H., **Kang, S. Y.**, Lee, J. G., ... & Kang, D. (2025). Understanding machine learning weather prediction by designing a cost-efficient model with knowledge-oriented modules. *Scientific Reports*.
- [1] Ham, Y. G., **Kang, S. Y.**, Jeong, Y., Jeong, J. H., & Li, T. (2022). Large-scale sea surface temperature forcing contributed to the 2013–17 record-breaking meteorological drought in the Korean Peninsula. *Journal of Climate*, 35(12), 3767–3783.

PRESENTATIONS

- [3] Seonyu Kang, Daehyun Kang, Yohwan Choi. Developing a Tropical Precipitation Estimation Model with U-Net. | Busan, April 2023.
- [2] Seonyu Kang, Daehyun Kang. Diagnosing the Interannual Variability Mechanism of MJOs in Response to Background Fields with CNN. | Gwangju, October 2022.
- [1] Seonyu Kang, Yoo-Geun Ham, Yerim Jeong, Jee-Hoon Jeong. Physical Mechanisms of the Record Multi-Year Drought of 2014–2015 in East Asia. | Online, October 2021.

AWARDS

Outstanding Poster Award — *Korean Meteorological Society* (October 2022)

Last Updated: March 12, 2026