

Curriculum Vitae

Jin-Sil Hong

Postdoctoral Associate

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RESEARCH EXPERIENCES

Mar. 2025 ~ Present	Postdoctoral Associate UT for Geophysics (UTIG) at the University of Texas at Austin Supervisor: Yuko Okumura	TX, USA
Sep. 2022 ~ Feb. 2025	Postdoctoral Associate Northern Gulf Institute (NGI) at Mississippi State University (MSU) and NOAA's Atlantic Oceanographic and Meteorological Laboratory (AOML) Supervisor: Andrew Mercer (MSU-NGI), Advisor: Hosmay Lopez (NOAA-AOML) Co-advisor: Sang-Ki Lee (NOAA-AOML), Dongmin Kim (NOAA-AOML)	FL, USA
Jan. 2020 ~ Feb. 2020	Visiting Scientist Climate and Radiation Laboratory, NASA's Goddard Space Flight Center Supervisor: Kyu-Myong Kim, Advisor: Young-Kwon Lim	MD, USA
Dec. 2014 ~ Feb. 2015	Undergraduate Internship Korean Institute of Ocean Science and Technology Supervisor: Young-Gyu Park	Ansan, Korea

EDUCATION

Sep. 2016 ~ Aug. 2022	Hanyang University Department of Marine Sciences and Convergent Technology Ph.D. (Integrated Ph.D.) Advisor: Prof. Sang-Wook Yeh	Seoul, Korea
Mar. 2012 ~ Aug. 2016	Hanyang University, ERICA Division of Science & Technology, College of Science & Technology Bachelor of Science in Environmental Marine Science Honors: <i>cum laude</i> (GPA 3.79/4.5)	Ansan, Korea

RESEARCH INTEREST

Ocean-Atmosphere interactions (e.g., ENSO and Atlantic Niño/Niña)
Inter-basin interaction (e.g., interaction between tropical Atlantic and Pacific)
Extratropical-tropical interactions (e.g., PNA)
Future projection in the extreme hydroclimate events (e.g., drought and flood)
Impact of climate variability on the extreme events (e.g., heatwave, tropical cyclones, and tornadoes)
Decadal climate variability (e.g., AMO, PDO, and IPO)

PEER-REVIEWED PUBLICATIONS

1. **Hong, J. S.**, Kim, D., Lopez, H., Lee, S. K., Mercer, A., & Johnson, N. C. (2025). Projected increase in ENSO-induced US winter extreme hydroclimate events in SPEAR large ensemble simulation. *npj Climate and Atmospheric Science*, 8(1), 84.
2. Kim, D., Lee, S. K., Lopez, H., Jeong, J. H., & **Hong, J. S.** (2024). An unusually prolonged Pacific-North American pattern promoted the 2021 winter Quad-State Tornado Outbreaks. *npj Climate and Atmospheric Science*, 7(1), 133.
3. Lee, Y. H., Yeh, S. W., **Hong, J. S.**, Shin, J., & An, S. I. (2023) Regime shift increase in East Asia's summer extreme hot day frequency across the late-1990s. *International Journal of Climatology*, 43(5), 2305-2317.
4. **Hong, J. S.**, Yeh, S. W., & Yang, Y. M. (2022). Inter-basin interactions between the Pacific and Atlantic Oceans depending on the phase of Pacific decadal Oscillation and Atlantic multi-decadal oscillation. *Journal of Climate*, 35(9), 2883-2894.
5. Yeh, S. W., Lee, E. H., Min, S. K., Lee, Y. H., Park, I. H., & **Hong, J. S.** (2021). Contrasting factors on the trends in hot days and warm nights over Northern Hemisphere land during summer. *Weather and Climate Extremes*, 34, 100389.
6. Yeh, S. W., Won, Y. J., **Hong, J. S.**, Lee, K. J., Kwon, M., Seo, K. H., & Ham, Y. G. (2018). The record-breaking heat wave in 2016 over South Korea and its physical mechanism. *Monthly Weather Review*, 146(5), 1463-1474.
7. **Hong, J. S.**, Yeh, S. W., & Seo, K. H. (2018). Diagnosing physical mechanisms leading to pure heat waves versus pure tropical nights over the Korean Peninsula. *Journal of Geophysical Research: Atmospheres*, 123(14), 7149-7160.
8. **Hong, J.**, Seo, S., Jeon, C., Park, J. H., Park, Y. G., & Min, H. S. (2016). Evaluation of temperature and salinity fields of HYCOM reanalysis data in the East Sea. *Ocean and Polar Research*, 38(4), 271-286.

MANUSCRIPTS UNDER REVIEW AND IN PREPARATION

1. Kim, D., Lee, S.-K., Lopez, H., West, R., Foltz, G., **Hong, J.-S.**, and Yeh, S.W. : Atlantic Niño increases tropical cyclone landfall in Korea and Japan, *To be submitted*.
2. **Hong, J. S.**, Yeh, S. W., Yang, Y. M., Lim, Y. K., & Kim, K. M. : Understanding the weakening of in-phase relationship of the Pacific Decadal Oscillation and Indian Ocean Basin mode during boreal winter, *In preparation*.

INTERNATIONAL CONFERENCES

- Jin-Sil Hong**, Dongmin Kim, Hosmay Lopez, Sang-Ki Lee, Andrew Mercer, and Nathaniel Johnson, “Attribution of the projected increase in ENSO-induced US winter precipitation anomalies”, American Geophysical Union (AGU) Fall Meeting 2024, Washington, D.C., United States of America, Dec., 2024, (Poster)
- Jin-Sil Hong**, Dongmin Kim, Hosmay Lopez, Sang-Ki Lee, Andrew Mercer, and Nathaniel Johnson, “Projected increase in wintertime U.S. extreme hydroclimate events in SPEAR-Large Ensembles”, Ocean Sciences Meeting 2024, New Orleans, United States of America, Feb., 2024, (Poster)
- Jin-Sil Hong**, Dongmin Kim, Hosmay Lopez, Sang-Ki Lee, Andrew Mercer, and Nathaniel Johnson, “Projected increase in wintertime U.S. extreme hydroclimate events in SPEAR-Large Ensembles”, Ocean Sciences Meeting 2024, New Orleans, United States of America, Feb., 2024, (Poster)

- Jin-Sil Hong** and Sang-Wook Yeh, “Non-stationary ENSO-IOD relationship modulated by the Atlantic Multi-decadal Oscillation”, American Geophysical Union (AGU) Fall Meeting 2021, Online, Dec., 2021. (Poster)
- Jin-Sil Hong**, Sang-Wook Yeh and Young-Min Yang “Understanding the impact of the Atlantic Multi-decadal Oscillation on the Pacific Decadal Oscillation”, The 101st *American Meteorological Society(AMS)* Annual Meeting, Online, Jan., 2021. (Poster)
- Jin-Sil Hong**, Sang-Wook Yeh and Young-Min Yang “Understanding the inter-basin interactions of the Atlantic Multi-decadal Oscillation and the Pacific Decadal Oscillation”, American Geophysical Union (AGU) Fall Meeting 2020, Online, Dec., 2020. (Poster)
- Jin-Sil Hong** and Sang-Wook Yeh “Understanding a non-stationary relationship between PDO and IOBM in the observation”, The 100th *American Meteorological Society(AMS)* Annual Meeting, Boston, United States of America, Jan., 2020. (Poster)
- Jin-Sil Hong** and Sang-Wook Yeh “Understanding the atmospheric responses in different phases of PDO, AMO, and IOBM in East Asia”, American Geophysical Union (AGU) Fall Meeting 2018, Washington, D.C., United States of America, Dec., 2018. (Poster)
- Jin-Sil Hong** and Sang-Wook Yeh “Difference of atmospheric field between Heat waves and Tropical nights in Korea”, The 14th Annual Meeting of the Asia Oceania Geosciences Society (AOGS), Singapore, Aug., 2017. (Poster)

AWARDS AND HONORS

2022	Best Poster Award in Climate Session, Korean Meteorological Society Spring Conference
2018	Research Assistant Scholarship, Hanyang University, Korea
2017	Teaching Assistant Scholarship, Hanyang University, Korea
2017	Living Expenses Scholarship, Hanyang University, Korea
2016	Graduation with honors: <i>cum laude</i> , Hanyang University, ERICA, Korea
2016	Merit Based Scholarship, Hanyang University, ERICA, Korea
2012 ~ 2015	Honor Scholarship, Hanyang University, ERICA, Korea

SKILL AND ACTIVITIES

<i>Tools</i>	NCL, Matlab, Python
<i>Languages</i>	Korean, English
<i>Scientific</i>	AGU, AMS, AOGS, KMS, KSO
<i>Memberships</i>	