YOUNGJI JOH

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RESEARCH INTERESTS

Climate Variability & Change | Ocean-Atmosphere Interactions | Seasonal and Decadal prediction | Extratropical-tropical Interactions | Hydroclimate extremes

EDUCATION

2015-2020	Georgia Institute of Technology, Atlanta, GA Ph.D. in Earth and Atmospheric Sciences
2010-2012	Hanyang University, Seoul, South Korea M.S. Environmental Marine Sciences
2006-2010	Hanyang University, Ansan, South Korea B.S. Environmental Marine Sciences

PROFESSIONAL APPOINTMENTS

2023-Present	**Associate Research Scholar** Princeton University & GFDL/NOAA
2020-2023	**Postdoctoral Research Associate** Princeton University & GFDL/NOAA (Advisor: Dr. Thomas L. Delworth)
2015-2020	**Graduate Research Assistant** Georgia Institute of Technology (Advisor: Prof. Emanuele Di Lorenzo)
2012-2015	**Junior Research Scientist** Korea Institute of Ocean Sciences and Technology, South Korea

LEADERSHIP ACTIVITIES

2025	A program co-chair for 38th AMS Conference on Climate Variability and Change at the 2025 AMS annual meeting
2025	Session co-chair for “Frontiers in Earth System Modeling” for 38th AMS Conference on Climate Variability and Change
2024	NOAA-MOF Joint Project collaboration: Ocean Circulation and Northwestern Pacific Climate Variability and Change (Air-Sea Interaction Research)
2024	Session co-chair for “Frontiers in Earth System Modeling” for 37th AMS Conference on Climate Variability and Change

2024	Session co-chair for “Multi-year to decadal variability and predictability” for 37th AMS Conference on Climate Variability and Change
2023	NOAA-MOF Joint Project collaboration: Modeling and assessment of ocean, air-sea coupling and marine ecosystem processes in the Northwestern Pacific and their interactions with climate variability and change
2017	Session co-chair for “Climate change and the effects on the ocean” for PICES/ICES Early Career Scientist Conference

SERVICE

Mar. 2024	Review Panel Member, National Oceanic and Atmospheric Administration
2023-present	Member of AMS Climate Variability and Change Committee
2018-present	Proposal reviewer for National Science Foundation (GEO/AGS/CLD) Journal reviewer for Nature Communications, npj Climate and Atmospheric science, Communications Earth and Environment, Scientific Reports, Journal of Climate, Frontiers for Young Minds, Frontiers in Marine Science, Geophysical Research Letters, Journal of Geophysical Research-Atmosphere/Oceans, Progress in Oceanography, Deep sea Research Part 1,2, Asia-Pacific Journal of Atmospheric Sciences, Journal of Operational Oceanography, NOAA GFDL internal review, National Research Climate Assessment (NCA5) agency review

PUBLICATIONS

[11] **Joh**, Y., S. Lee, Y. Park., T. L. Delworth, G. Park, L. Jia, W. F. Cooke, C. McHugh, Y. Kim, H. Lim, 2024: Predictability and prediction skill of summertime East/Japan Sea surface temperature events. *npj Climate and Atmospheric Science*, https://www.nature.com/articles/s41612-024-00754-7

[10] Jia. L., T. L. Delworth, X. Yang, W. Cooke, N. C. Johnson, L. Zhang, Y. **Joh**, F. Lu, C. McHugh, 2024: Seasonal predictions of summer compound humid heat extremes in the southeastern United States driven by sea surface temperatures. *npj Climate and Atmospheric Science*, https://www.nature.com/articles/s41612-024-00723-0

[9] **Joh,** Y., T. L. Delworth, A. T. Wittenberg, X. Yang, A. Rosati, N. Johnson, and L. Jia, 2023: The role of upper-ocean variations of the Kuroshio-Oyashio Extension in seasonal-to-decadal air-sea heat flux variability. *npj Climate and Atmospheric Science*, https://www.nature.com/articles/s41612-022-00285-z

[8] Beaudin, E., Di Lorenzo, E., A., Miller, H., Seo, and Y., **Joh** 2022: Impact of Extratropical Northeast Pacific SST on U.S. West Coast Precipitation. *Geophysical Research Letters*, 44, 11, 663-11,671. https://doi.org/10.1029/2022GL102354

[7] **Joh**, Y., T. L. Delworth, A. T. Wittenberg, W. F. Cooke, A. Rosati, and L. Zhang, 2022: Stronger decadal variability of the Kuroshio Extension under simulated future climate change. *npj Climate and Atmospheric Science*, https://www.nature.com/articles/s41612-022-00285-z

[6] Di Lorenzo, E., T. Xu, Y. Zhao, M. Newman, A. Capotondi, S. Stevenson, D. Amaya, B. Anderson, R. Ding, J. Furtado, Y. **Joh**, G. Liguori, J. Lou, A. J. Miller, G. Navarra, N. Schneider, D. Vimont, S. Wu, H. Zhang, 2022: Modes and Mechanisms of Pacific Decadal-Scale Variability, *Annual Reviews of Marine Science*, https://doi.org/10.1146/annurev-marine-040422-084555

[5] Choi, W., M. Bang, Y. **Joh**, Y-G. Ham, N. Kang, and C. J. Jang, 2022: Characteristics and mechanisms of marine heatwaves in the East Asian marginal seas: Regional and seasonal differences, *Remote Sensing*, https://www.mdpi.com/2072-4292/14/15/3522

[4] **Joh**, Y., T. Delworth, A. T. Wittenberg, X. Yang, F. Zeng, L. Jia, F. Lu, N. Johnson, S. Kapnick, A. Rosati, L. Zhang, C. McHugh, and W. F. Cooke, 2022: Seasonal-to-decadal variability and predictability of the Kuroshio Extension in the GFDL coupled ensemble reanalysis and forecasting system. *Journal of Climate*, http://doi.org/10.1175/JCLI-D-21-0471.1

[3] **Joh,** Y., E. Di Lorenzo, L. Siqueira, and B. P. Kirtman, 2021: Enhanced interaction between Kuroshio Extension and tropical Pacific in a changing climate, *Scientific Reports*, 11, 6247, https://doi.org/10.1038/s41598-021-85582-y

[2] **Joh,** Y., and E. Di Lorenzo, 2019: Interactions between Kuroshio Extension and Central Tropical Pacific lead to preferred decadal timescale oscillations in Pacific, *Scientific Reports*, 9, 13558. https://doi.org/10.1038/s41598-019-49927-y

[1] **Joh,** Y., and E. Di Lorenzo, 2017: Increasing Coupling between NPGO and PDO leads to Prolonged Marine heatwaves in the Northeast Pacific. *Geophysical Research Letters*, 44, 11, 663-11,671. https://doi.org/10.1002/2017GL075930

[To be submitted or in revision]

Lou, J., **Joh**, Y., Delworth, T.: The role of long-term trends and internal variability in altering fire weather conditions in the western United States, submitted

Lee, S., **Joh**, Y., et al.: Contributing Factor of Changjiang Low-Salinity Water Intrusion into South Korea in Summer: Integrated Study of Observations and GFDL-CM4 data, submitted

INVITED TALKS

DEC 2024	Hanyang University, Ansan, South Korea (upcoming)
JUN 2024	Korea-US JPA Ocean Research Panel Workshop, KIOST, Busan, South Korea
JUN 2024	GFDL-KIOST Workshop, Seoul, South Korea
MAR 2024	JAMSTEC, Yokohama, Japan
MAR 2024	University of Tokyo, Tokyo, Japan
MAR 2024	University of Toyama, Toyama, Japan
FEB 2024	S2S Webinar Series, NOAA virtual lab
DEC 2023	AGU annual meeting, San Francisco, CA, US
OCT 2023	KIOST, Busan, South Korea

OCT 2023	Pukyong National University, Busan, South Korea
NOV 2022	WHOI, MA, US
OCT 2022	George Mason University, VA, US
SEP 2022	POSTECH, Pohang, South Korea
DEC 2021	KIOST, Busan, South Korea
AUG 2021	Hanyang University, Ansan, South Korea
AUG 2021	KIOST, Busan, South Korea
MAR 2020	GFDL, Princeton, NJ, US
MAR 2020	University of Miami, Miami, FL, US

ORAL PRESENTATIONS

2023	AGU annual meeting, San Francisco, CA, US
2023	EGU annual meeting, Vienna, Austria
2023	US-CMS9 Workshop, Princeton, NJ, US
2023	OAR-GFDL meeting (internal), NJ, US
2022	PICES Annual meeting, Busan, South Korea
2022	OAR-GFDL meeting (internal), Princeton, NJ, US
2022	EGU annual meeting, Vienna, Austria
2022	CIMES review meeting, Princeton, NJ, US
2022	CLIVAR Societally-Relevant Multi-Year Climate Predictions workshop, CO, US
2022	Ocean Science annual Meeting, virtual
2022	GFDL Lunch time seminar, NJ, US
2021	Physical Oceanography Dissertation Symposium, NSF&ONR, HI, US
2021	AOGS annual meeting, virtual
2020	RGMA meeting, virtual
2020	Ocean Science annual Meeting, San Diego, CA, US
2018	PICES annual meeting, Yokohama, Japan
2018	PICES /ICES Early Career Scientist Conference Busan, South Korea
2016	PICES annual meeting, San Diego, CA, US
2013	PICES annual meeting, Nanaimo, Canada
2013	Korean Society of Oceanography Spring Meeting, Jeju, South Korea

POSTER PRESENTATIONS

2021	International workshop for midlatitude air-sea interaction, virtual
2021	WCRP Attribution of multi-annual to decadal changes in climate system workshop, virtual
2021	MPOWIR Pattullo Conference, VA, US
2019	Atmospheric Convection and Air-Sea Interactions of the Tropical Oceans, CO, US
2011	AGU annual meeting, San Francisco, CA

TRAVEL GRANTS

2025	Hanyang University, Ansan, South Korea
2024	Japan Agency for Marine-Earth Science and Technology, Yokohama, Japan
2023	Korea Institute of Ocean Science and Technology, Busan, South Korea
2022	PICES Annual meeting, Busan, South Korea

2021 MPOWIR Pattullo Conference, VA, US
2021 Physical Oceanography Dissertation Symposium, Kaua island, HI, US
2021 Hanyang University, Ansan, South Korea
2020 Geophysical Fluid Dynamics Laboratory, Princeton, NJ, US
2017 Atmospheric Convection & Air-Sea Interactions over the Tropical Oceans, CLIVAR, US
2017 PICES/ICES 3rd Early Career Scientist Conference, Busan, South Korea
2016 PICES Annual meeting, San Diego, CA, US
2016 CESM Tutorial, NCAR's Mesa Lab, CO, US

AWARDS & DISTINCTIONS

2023 Editors citation for excellent in refereeing, Geophysical Research Letters
2022 Best Oral Presentation Award by Physical Oceanography & Climate Committee, PICES Annual Meeting, South Korea
2020 Thank a teacher certificate, Advanced Environmental Data Analysis, Georgia Tech
2019 Thank a teacher certificate, Habitable planet, Georgia Tech
2013 Best Oral Presentation Award by Monitor Committee, PICES Annual Meeting, Canada
2010 Outstanding Paper Award, Korea Geological Society, South Korea

TEACHING & MENTORING

AUG 2021 Visiting lecturer, Hanyang University, South Korea
: Advanced statistical analysis and Linear Inverse Modeling for climate science
JAN 2021 GFDL lecture for interns
: Mechanisms and predictability of Pacific climate variability
2016-2020 Teaching Assistant, Georgia Institute of Technology, US
: Quantitative Techniques, Undergraduate level
Advanced Environmental Data Analysis, Graduate level
Habitable Planet, Undergraduate level
2010-2012 Teaching Assistant, Hanyang University, South Korea
: Coastal Expedition and Laboratory, Undergraduate level
Geomagnetism, Graduate level
Geological Oceanography and Laboratory, Undergraduate level
Marine ship-board training and exercise, Undergraduate level

SCHOLARSHIPS

2015-2020 Georgia Institute of Technology Graduate Research Assistantship
2010-2012 Hanyang Graduate Honor Scholarship
2006-2010 Hanyang Undergraduate Academic Excellence Scholarship