PROFESSOR JIN-YI YU, Ph.D.
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(Updated on 10/14/2026)

EDUCATION

Ph.D., 1993, Department of Atmospheric Sciences, University of Washington.
B.S., 1984, Department of Atmospheric Sciences, National Taiwan University.

EMPLOYMEMENT (academic sector 30 years)

2002 - present: Assistant Professor, Associate Professor, Full Professor, UC Irvine
1993 - 2002: Postdoc, Assistant Researcher, Associate Researcher, UC Los Angeles

AWARD AND HONOR

- Jade Mountain Scholar, Ministry of Education, Taiwan, 2026
- Distinguished Chair Professor, Department of Atmospheric Sciences, National Taiwan University, 2026
- Atmospheric Science Chair Professor, National Central University, Taiwan, 2026
- Ocean-Land-Atmosphere Research (OLAR) Outstanding Editorial Board Member Award, 2026
- Ocean-Land-Atmosphere Research (OLAR) Outstanding Special Issue Organization Award, 2026
- UC Irvine Dr. De Gallow Professor of the Year Award nominee, 2024
- UC Irvine Excellence in Pedagogical Development Award nominee, 2024
- Ocean-Land-Atmosphere Research (OLAR) 2023 Excellent Editor Award, 2024
- Advances in Atmospheric Sciences (AAS) 2023 Outstanding Editor Award, 2024
- American Geophysical Union (AGU) 2020 Editors' Citation for Excellence, 2021
- Thomson Reuters list of the world's top 1000 climate scientists, 2021
- Fellow, Meteorology Society of Taiwan, 2019
- Oversea Expert, Chinese Academy of Sciences, 2018
- Outstanding Contributions Award to Undergraduate Education, School of Physical Science, University of California-Irvine, 2006-07

SOCIETY AND COMMITTEE SERVICE

- Co-Chair, Department Seminar Committee, Department of Earth System Science, UC Irvine, 2023-2024
- Member, BTI Faculty Search Committee, Department of Earth System Science, UC Irvine, 2023-2024
- Member, Academic Senate Task Force on Climate Change, UC Irvine, 2021-2022.
- Member, Physical Oceanography Faculty Search Committee, Department of Earth System Science, UC Irvine, 2021-2022
- Member, Physical Sciences Computing Group (PSCG) Committee, UC Irvine, 1/2021-4/2021.
- Vice Chair, Department of Earth System Science, UC Irvine, 2018 - 2021.
- Faculty Advisor, Student Chapter of the American Meteorological Society at UCI, 2017 – 2019.
- Member and Vice Chair, Advisory Board, Chinese-American Oceanic and Atmospheric Association-Southern California, 1/2017 – present.
- Vice Chair, Department of Earth System Science, UC Irvine, 2006 - 2007.
- Member, External 5-year review Committee for Department of Atmospheric Sciences, National Taiwan University, May 1-2, 2024
- Member, External 5-year review Committee for International Degree Program in Climate Change and Sustainable Development, National Taiwan University, June 15-16, 2022
- Member, External 5-year review Committee for Department of Atmospheric Sciences, National Taiwan University, May 16-17, 2019.
- Member, US CLIVAR Working Group on ENSO Diversity, 2011- 2016.
- Panelist, DOE proposal review panels, 2009, 2010.
- Panelist, NOAA proposal review panel, 2013, 2025.
- Chair, Chinese-American Oceanic and Atmospheric Association-Southern California, 2009 - 2010.

EDITORIAL SERVICE

- International Advisory Board Member, Terrestrial, Atmospheric and Oceanic (TAO) Sciences Journal, Springer Nature, 12/2021– present.
- Editorial Board Member, SPJ Ocean-Land-Atmosphere Research (OLAR), American Association for the Advancement of Science (AAAS), 5/2021 – 9/2026.
- Editor, Advances in Atmospheric Sciences, International Association of Meteorology and Atmospheric Sciences (IAMAS), 1/2023 – 9/2026.
- Deputy Editor-In-Chief, Advances in Atmospheric Sciences, International Association of Meteorology and Atmospheric Sciences (IAMAS), 1/2021 – 12/2022.
- Editorial Board Member, Journal of Systems Analysis Modelling Simulation, Gordon and Breach Science Publisher, 2001-2003.
- Guest Editor, Journal of System Analysis Modeling Simulation, Special Issue on "*Environmental Modeling and Simulation*", Volume 42, Number 2, 2002.
- Co-Editor, *Environmental Modeling and Simulation* (ISBN: 1-56555-181-8), Ed. Achim Sydow and Jin- Yi Yu, published by The Society For Computer Simulation International, 2000, 146pp.
- Co-Editor, *1999 International Conference on Mission Earth* (ISBN: 1-56555-162-1), published by The Society For Computer Simulation International, 1999, 122pp.
- Co-Editor, *1998 Conference on Mission Earth: Modeling and Simulation of the Earth System* (ISBN: 1- 56555-139-7), published by The Society for Computer Simulation International, 1989, 116pp.
- Journal Article Reviewer, for Nature, Nature Communications, Science Advances, Scientific Report, npj Climate and Atmospheric Science, Journal of Atmospheric Sciences, Journal of Climate, Monthly Weather Review, Journal of Atmospheric Sciences, Journal of Advanced Modeling Earth Systems, Geophysical Research Letters, Journal of Geophysical Research-Atmosphere, Journal of Geophysical Research-Ocean, Climate Dynamics, Hydrological Science Journal, International Journal of Climatology, Terrestrial Atmospheric and Oceanic Sciences, Frontiers in Marine Science, Frontiers in Earth Science, Advances in Atmospheric Sciences, Atmospheric Research, Global and Planetary Change, Annales Geophysicae, Theoretical and Applied Climatology, Meteorology and Atmospheric Physics, Progress in Oceanography, Asia-Pacific Journal of Atmospheric Sciences, Water Resources Research, Chinese Journal of Oceanology and Limnology, Dynamics of Atmospheres and Oceans, Environmental Research Letter, Ocean Dynamics, Journal of Ocean University of China, etc.

RESEARCH EXPERTISE

Dr. Yu has made remarkable scientific contributions to climate research, particularly in the realms of climate modeling, dynamics, and diagnosis. His doctoral research significantly advanced our understanding of atmospheric phenomena such as the baroclinic wave lifecycle and jet stream vacillation. Notably, he proposed a groundbreaking wave-mean flow interaction theory elucidating the north-south oscillation of the tropospheric jetstream, now recognized as the Arctic oscillation or the Annular Mode.

Moreover, Dr. Yu's seminal work with Kao in 2009 introduced the terms "Central Pacific El Niño" and "Eastern Pacific El Niño," revolutionizing our comprehension of El Niño diversity and complexity. This pioneering study, cited 1838 times as of 9/30/2024, has become widely accepted in the scientific community. Dr. Yu's contributions extend further into the realm of ENSO dynamics, where his development of a subtropical ENSO dynamics theory has provided a unique explanation for the production of Central Pacific and multi-year ENSO events. This theory diverges from conventional tropically focused theories, emphasizing subtropical Pacific coupling processes.

Additionally, Dr. Yu's research has shed light on trans-basin interactions across the Pacific, Atlantic, and Indian Oceans, enhancing our understanding of how these interactions influence various climate variability modes on interannual-to-decadal time scales. Through his multifaceted contributions, Dr. Yu has significantly advanced the field of climate research, shaping our understanding of complex atmospheric phenomena and their broader implications for global climate dynamics.

In recent years, Dr. Yu has expanded his research into marine heatwaves, a rapidly emerging area of interest within the climate science community. He has successfully developed a dynamic framework to explain how trans-basin atmospheric wave dynamics and the resulting trans-basin interactions contribute to the formation of long-lasting marine heatwave events in the Gulf of Alaska.

RESEARCH EXPERIENCE

Marine Heatwave dynamics

- Identify two variations of North Pacific marine heatwave events.
- Develop an atmospheric wavetrain theory to elucidate the production mechanisms underlying these two variants of North Pacific marine heatwaves.
- Establish a dynamic framework to elucidate the multi-year duration characteristics of North Pacific marine heatwave events

ENSO complexity dynamics

- Coined the terms "Central Pacific ENSO" and "Eastern Pacific ENSO" to investigate the existence of distinct types of El Nino-Southern Oscillation (ENSO) and their complexity dynamics.
- Developed a subtropical forcing theory to elucidate the underlying dynamics of ENSO evolutions and their complexity.
- Investigated the global impacts of ENSO complexity on climate, providing insights into its effects on Earth's climate system.
- Evaluated and analyzed the performance of contemporary climate models in simulating ENSO complexity and its global impacts, contributing to advancements in climate modeling.

Trans-basin interactions

- Examine the roles of Atlantic and Indian Oceans in modulating ENSO dynamics and activities.
- Identify the atmospheric, oceanic, and coupled processes involved in the cross-basin interactions among the Pacific, Atlantic, and Indian Oceans.
- Discover a strengthening effect of Arctic warming on Pacific-Atlantic climate connectivity.
- Study the linkages between Pacific Decadal Oscillation and Atlantic Multi-decadal Oscillation.
- Examine the cross-basin impacts of Atlantic Multi-decadal Oscillation on Pacific Climate.
- Study the cross-basin interactions during the 1970s and 1990s climate shifts.

Indian Ocean and monsoon variabilities

- Contrast the internal and forced parts of the Indian Ocean dipole mode of SST variability.
- Study the interactions between Indian Ocean and monsoon and their contributions to Tropospheric Biennial Oscillation.
- Study the recent changes of Indian-Australian monsoon interactions.
- Study the roles of Indonesian Through Flow in modulating Pacific-Indian Ocean interactions.

Jet stream and baroclinic wave dynamics

- Study the life cycle of baroclinic waves and its baroclinic and barotropic energy conversion.
- Study the interactions between baroclinic waves and jet stream.
- Propose a wave-mean flow interaction theory to explain the latitudinal oscillation of jet stream.
- Study the interactions among jet stream, baroclinic waves, and orographic-forced stationary waves.

Marine stratocumulus clouds and its climate roles

- Study the impacts marine boundary layer clouds on tropical atmosphere-ocean interactions.
- Propose methodologies to improved climate model simulations of marine stratus clouds.
- Identify the impacts of Peruvian stratocumulus on the eastern Pacific cold tongue climate and variability.

Climate model developments

- Develop from scratch an atmospheric GCM using a full Galerkin method at University of Washington.
- Couple the UCLA AGCM and LANL POP for a new global and parallel coupled atmosphere-ocean GCM.
- Develop a basin coupled/decoupled technique to study cross-basin interactions with coupled CCMs.

DIVERSITY, EQUALITY, AND INCLUSION

Demonstrated commitment to Diversity, Equity, and Inclusion (DEI) by actively supporting the professional growth of early career faculty, including a female assistant professor, and mentoring a diverse group of scientists, with approximately half being women. Successfully co-led the department's application to join the AGU Bridge Program and facilitated connections with the Southern California Cal-Bridge Program.

OUTREACH (selected)

Guest lectures delivered at Osher Lifelong Learning Institute, Newport Bay Conservancy, and FOCUS Summer Science Institute on Earth Science. Judged and reviewed papers at Southern California Junior Science and Humanities Symposium. Provided expert commentary to various news media outlets, including CNN News, Voice of America, LA Weekly, World Journal, and SinDao Daily News. FOCUS is a program that aims to unite scientists, students, and schools through faculty outreach collaborations.

PUBLICATIONS

*(*Corresponding author; XXX first author is a group member of Dr. Jin-Yi Yu; #publications from Dr. Yu's group)*

2026

- **(167)** Wang*, X., M. Chen, T. Tozuka, C. Wang, L. Zhang, S.-W. Yeh, **J.-Y. Yu**, 2026: Inter-basin interactions, *Reference Module in Earth Systems and Environmental Sciences*, Elsevier, 2026, ISBN 9780124095489, doi: 10.1016/B978-0-443-15748-6.00089-7.
- **(166)** Chen, M., W. Tan, S. Chen, **J.-Y. Yu**, M. Collins, T. Tozuka, X. Wang, 2026: Revisiting the Roles of the Australian Winter Monsoon and ENSO in Indian Ocean Tripole Variability, *Advances in Atmospheric Sciences*, 44(2), 1−9, https://doi.org/10.1007/s00376-026-6131-4.
- **(165)** Lou, W., C. Sun*, F. Kucharski, J. Li, **J.-Y. Yu**, R. Ding, A. Capotondi, 2026: South America Drought as a Precursor to Tropical Pacific Sea Surface Temperature Cooling, *Journal of Climate*, in press.
- **(164)** Wang*, X., J. Liu, J. Chen, J. Weng, C. Wang, **J.-Y. Yu**, L. Wang, S. Chen, L. Xie, and Z. He, 2026: La Nina's longevity shapes Bering Sea ice fate, *Communications Earth & Environment*, doi: 10.1038/s43247-026-03896-z.
- **(163)** Wang, J., Y.-F. Lin, **J.-Y. Yu**, F. Wang, and L. Liu*, 2026: Solar-cycle modulation of subsurface ocean memory via the North Pacific eastern subtropical mode water, *Geophysical Research Letters*, 53, e2026GL122914. doi: 10.1029/2026GL122914.
- **(162)** Xiao, H.-M., K.-C. Tseng, **J.-Y. Yu**, H.-H. Hsu, T.-H. Lee, and M.-H. Lo*, 2026: Enhanced Teleconnections of Maritime Continent Deforestation on North Pacific Climate During La Nina Conditions *Journal of Climate*, doi: 10.1175/JCLI-D-24-0512.1.
- **(161)** Zhao, Y. and **J.-Y. Yu***, 2026: Trans-basin linkages prolong northwestern Pacific marine heatwaves through a circumglobal wave pattern, *Science Advances*, . 12(27), eadz4647. doi:10.1126/sciadv.adz4647.
- **(160)** **J**iang*, W., **J.-Y. Yu***, X. Song, M. Chen, G. Huang, P. Huang, Y.-F. Lin, Y. Ji, 2026: Intermodel Spread in Indian Ocean Basin Mode Simulation: Roles of Indian Ocean Winds and Pacific Cold Tongue, Journal of Climate, https://doi.org/10.1175/JCLI-D-25-0438.1.
- **(159)** Liao, Y.-C., I.-I. Lin*, **J.-Y. Yu**, J.-Y. Yu, C.-C. Lien, and J.-Y. Chan, 2026: Change in Tropical Cyclone Efficiency Under Different ENSO Conditions in the Western North Pacific Ocean, *Geophysical Research Letters*, 53 (2), e2025GL118850. doi: 10.1029/2025GL118850.

2025

- **(158)** Zhou, T., S. Jian*, R. Ding, N. J. Holbrook, A. V. Fedorov, **J.-Y. Yu**, K. Xu, C. Li, and F. Huang, 2026: Cold Surges over North America caused remotely by Northwest Pacific explosive cyclones, *Geophysical Research Letters*, 52 (24), doi: 10.1029/2025GL119533.
- **(157)** Jiang*, W., P. Huang, **J.-Y. Yu**, X. Song, M. Chen, G. Huang, 2025: Uncertainty in El Nino-Driven Northwest Pacific Anticyclone Projections Linked to Indo-Pacific Circulation Changes, *Geophysical Research Letters,* 52 (22), doi: 10.1029/2025GL118494.
- **(156)** Chen, J, **J.-Y. Yu**, C. Wang, J. Liu, X. Wang, S. Chen, L. Zhang, Z. He, 2025: ENSO's Changing Grip on Bering Sea Ice: The Emerging Control of the North Pacific Meridional Mode, *Science Advances,* 11 (47). doi: 10.1126/sciadv.ady2329.
- **(155#)** Zhao, Y., J.-Y. Yu*, H.-H. Hsu, I.-I. Lin, S. Yang, C. Wang, J. Shi, Y. Du, X. Wang, T. Lian, and S.-W. Yeh, 2025: Trans-Basin Interaction Sustains Multi-Year Marine Heatwaves in the Gulf of Alaska, *npj Climate and Atmospheric Science*, 8, 298 (2025). doi: 10.1038/s41612-025-01187-6.
- **(154#)** Zhu, T., **J.-Y. Yu***, and M.-H. Lo, 2025: Amplified Impacts of Multi-year La Ninas on Soil Moisture Compared to Single-year La Ninas, *npj Climate and Atmospheric Science*, 8, 301 (2025). doi: 10.1038/s41612-025-01175-w.
- **(153#)** Liu*, L., **J.-Y. Yu***, F. Wang, J. Wang, and Y.-F. Lin, 2025: Linking North Pacific Eastern Subtropical Mode Water to ENSO: precursor signatures and subtropical cell pathways, *npj Climate and Atmospheric*

Science, 8, 268 (2025). doi: 10.1038/s41612-025-01147-0.

- **(152)** Tian, Q., **J.-Y. Yu**, H. C. Nnamchi, T. Li, J. Li, X. Li & R. Ding, 2025: Unraveling the mystery of recent shortened response time of ENSO to Atlantic forcing, *Nature Communications*, 16, 5884 (2025). doi: 10.1038/s41467-025-61130-4.
- **(151#)** Li, X., **J.-Y. Yu***, R. Ding, X. Xu, K. Ji, and T. Wen, 2025: South Pacific Oscillation Contributes to Multi-year ENSOs, *npj Climate and Atmospheric Science*, 8, 243 (2025). doi: 10.1038/s41612-025-01130-9.
- **(150#)** Lin, Y.-F., **J.-Y. Yu***, C.-R. Wu, Y.-S. Han, M.-H. Lo, C.-T. Terng, J.-M. Liau, T.-H. Lee, H.-M. Xiao, 2025: Evolving El Nino Patterns and Their Potential to Transform California Market Squid (Doryteuthis opalescens) Fishing Environment, *Journal of Geophysical Research - Oceans*, 130, e2024JC021951. doi: 10.1029/2024JC021951.
- **(149)** Zhou, X., K. Xu, K. Ashok, J. Shi, L. Zhang, **J.-Y. Yu**, B. Liu, C.-Y. Tam, H. Xu and W. Wang, 2025: Compound marine heatwaves and tropical cyclones delay the onset of the Bay of Bengal summer monsoon, *npj Climate and Atmospheric Science*, 8, 162 (2025). doi: 10.1038/s41612-025-01061-5.
- **(148#)** Lin, Y.-F., M. Chen, L. Liu, F. Zheng, R. Ding, X. Wang, C.-R. Wu, M.-H. Lo, H.-H. Hsu, J. Chen, T.-H. Lee, and J.-Y. Yu*, 2025: Diverse NPMM conditions deviate the 2023/24 El Niño from the 1997/1998 and 2015/2016 Extreme El Niño Events, *npj Climate and Atmospheric Science,* DOI: 0.1038/s41612-025-01013-z.
- **(147#)** Zhu, T., **J.-Y. Yu***, E. S. Saltzman, and L.-S. Tseng, 2025: Distinct Impacts of Multi-year El Niño on Antarctic Sea Ice Concentration due to Atlantic and Indian Ocean Conditions, *Journal of Climate*, 38, 2063-2077. DOI: 10.1175/JCLI-D-24-0196.1.
- **(146#)** Kim*, J.-W., **J.-Y. Yu***, and B. Tian, 2025: Persistent easterlies from triple-dip La Niña restrained 2023/24 El Niño, *npj Climate and Atmospheric Science, 8, 34 (2025). doi: 10.1038/s41612-024-00890-0*.

2024

- **(145)** Chen, M., M. Collins, **J.-Y. Yu**, X. Wang*, L. Zhang, and C.-Y. Tam, 2024: Emerging influence of the Australian Monsoon on Indian Ocean interannual variability in a warming climate, *npj Climate and Atmospheric Science*, 7, 319. Doi: 10.1038/s41612-024-00879-9.
- **(144)** Wang, J., L. Liu*, Y.-F. Lin, **J.-Y. Yu**, and F. Wang, 2024: A see-saw of subduction rate in the North Pacific western and eastern Subtropical Mode Water formation areas induced by the Aleutian Low, *Geophysical Research Letters*, doi: 10.1029/2024GL110837.
- **(143)** Cao, T.-W., F. Zheng, **J.-Y. Yu**, X.-H. Fang, and W.-Xi. Zhong, 2024: The unique role of the intraseasonal zonal wind in March over the equatorial western Pacific contributes to shaping the subsequent ENSO development *Geophysical Research Letters*, doi: 10.1029/2024GL110976.
- **(142)** Zheng, F., K. Li, J. Zhu, J.-Y. Yu, and N. Keenlyside, 2024: Advancing Annual Global Mean Surface Temperature Prediction to 2 Months Lead Using Physics Based Strategy, npj Climate and Atmospheric Science, 7, 219. doi: 10.1038/s41612-024-00736-9.
- **(141)** Li, P.-P., F. Zheng, X. Fang, and **J.-Y. Yu**, 2024: The advance of El Niño phase locking from period 1982–2000 to 2001–2022, *Environmental Research Communications*, 6, 081004, DOI 10.1088/2515-7620/ad6b04.
- **(140#)** Li, X., **J.-Y. Yu***, R. Ding, J. Hu, and P. Tuo, 2024: Asymmetric Efficacies between Warm and Cold Pacific Meridional Modes in Inducing ENSO, *Geophysical Research Letters*, 51, e2024GL108924, DOI: 10.1029/2024GL108924.
- **(139#)** Li, X., **J.-Y. Yu***, and R. Ding, J. Hu: El Niño-La Niña Asymmetries in the Changes of ENSO Complexities and Dynamics Since 1990, *Geophysical Research Letters*, 51, e2023GL106395. DOI: 10.1029/2023GL106395.
- **(138)** Xiao, H.-M., H.-H. Hsu, T.-H. Lee, B.-T. Jong, **J.-Y. Yu**, Y.-Ch. Liang, and M.-H. Lo, 2024: The remote response in the Northern Pacific climate during winter to deforestation in the Maritime Continent, *Journal of Geophysical Research-Atmosphere*, 129, e2023JD040372. DOI: 10.1029/2023JD040372.
- **(137#)** Zhu, T. and **J.-Y. Yu***, 2024: Distinguishing Impacts on Winter Temperatures in Northern Mid-to-High Latitude Continents during Multi-year and Single-year La Niña events: A Modeling Study, *Journal of Climate*, DOI: 10.1175/JCLI-D-23-0296.1.
- **(136)** Ding, R., K. Ji, **J.-Y. Yu**, J. Li, Z.-Z. Hu, Y.-H. Tseng, J. Shi, Y. Zhao, and C. Sun, 2024: Enhanced North Pacific Victoria mode in a warming climate, npj Climate and Atmospheric Science, 7, 49.

DOI:10.1038/s41612-024-00599-0.

- **(135)** Li, X., R. Ding, Y.-H. Tseng, **J.-Y. Yu**, and X. Xu, 2024: Mutual Influences Between ENSO and Its Two Precursor Modes in the Extratropical South Pacific, Climate Dynamics, DOI:10.1007/s00382-023-07054-5.
- **(134[#])** Lin, Y.-F. and **J.-Y. Yu***, 2024: The role of Indian Ocean in controlling the formation of multi-year El Ninos through subtropical ENSO dynamics, Journal of Climate, 37, 385-401. DOI: 10.1175/JCLI-D-23-0297.1.

2023

- **(133[#])** Wu, C.-R., Y.-F. Lin, I.-I. Lin, and **J.-Y. Yu***, 2023: Unleashing the Power of the Sun: The Increasing Impact of the Solar Cycle on Off-Season Super Typhoons since the 1990s, npj Climate and Atmospheric Science, DOI: 10.1038/s41612-023-00495-z.
- **(132[#])** Kim*, J.-W., **J.-Y. Yu***, and B. Tian, 2023: Overemphasized role of preceding strong El Nino in generating multi-year La Nina events, Nature Communications, DOI: 10.1038/s41467-023-42373-5.
- **(131[#])** Lee, T.-H., **J.-Y. Yu***, Y.-F. Lin, M.-H. Lo*, and H.-M. Xiao, 2023: The Potential Influence of Maritime Continent Deforestation on El Nino-Southern Oscillation: Insights from Idealized Modeling Experiments, Geophysical Research Letters, 50, e2023GL105012, DOI: 10.1029/2023GL105012.
- **(130[#])** Zhao, Y. and **J.-Y. Yu***, 2023: Two Marine Heat Wave (MHW) Variants under a Basin-wide MHW Conditioning Mode in the North Pacific and Their Atlantic Associations, Journal of Climate, 36, 8657-8674. DOI: 10.1175/JCLI-D-23-0156.1.
- **(129)** Song, W., **J.-Y. Yu**, and T. Lian 2023: The Efficacy of Tropical and Extratropical Predictors for Long-lead ENSO Prediction: A Study Using a Machine Learning Algorithm, International Journal of Climatology, DOI: 10.1002/joc.8241.
- **(128[#])** Lin, Y.-F., C.-T. Terng, C.-R. Wu, and **J.-Y. Yu***, 2023: Seasonally-reversed trends in the subtropical Northwestern Pacific linked to asymmetric AMO influences, Scientific Reports, DOI: 10.1038/s41598-023-40979-9.
- **(127[#])** Kim, J.-W., T.-H. Chang, C.-T. Lee, and **J.-Y. Yu***, 2023: Evaluating ENSO's Spatiotemporal Complexity in the CWB CFS 1-Tiered Model Hindcasts, Journal of Geophysical Research - Atmospheres, 128, e2022JD038200. doi:10.1029/2022JD038200.
- **(126)** Ding, R., H. Namchi, **J.-Y. Yu**, T. Li, C. Sun, J. Li, Y.-H. Tseng, X. Li, F. Xie, J. Feng, and X. Li, 2023: North Atlantic Oscillation controls multidecadal changes in the North Tropical Atlantic-Pacific connection, *Nature Communications*, 14, 862. doi:10.1038/s41467-023-36564-3.

2022

- **(125)** Hu, Hsun-Ming, Valerie Trouet, Christoph Spotl, Hsien-Chen Tsai, Wei-Yi Chien, Wen-Hui Sung, Veronique Michel, **Jin-Yi Yu**, Patricia Valensi, Xiuyang Jiang, Fucai Duan, Yongjin Wang, Horng-Sheng Mii, Yu-Min Chou, Mahjoor Lone, Chung-Che Wu, Elisabetta Starnini, Marta Zunino, Takaaki Watanabe, Tsuyoshi Watanabe, Huang-Hsiung Hsu, G.W.K. Moore, Giovanni Zanchetta, Carlos Perez-Mejias, Shih-Yu Lee, and Chuan-Chou Shen*, 2022: Tracking westerly wind directions over Europe since the middle Holocene, *Nature Communications*, 13, 7866. doi:s41467-022-34952-9.
- **(124[#])** Zhu, T. and **J.-Y. Yu***, 2022: A shifting tripolar pattern of Antarctic sea ice concentration anomalies during multi-year La Nina events, *Geophysical Research Letters*, 49, e2022GL101217. doi:10.1029/2022GL101217.
- **(123)** Kim*, J.-W. and **J.-Y. Yu**, 2022: Single- and multi-year ENSO events controlled by pantropical climate interactions, npj Climate and Atmospheric Science, 5, 88. doi:10.1038/s41612-022-00305-y.
- **(122)** Ding*, R., Y.-H. Tseng, E. Di Lorenzo, L. Shi, J. Li, **J.-Y. Yu**, C. Wang, C. Sun, J.-J. Luo, K.-J. Ha, Z.-Z. Hu, and F. Li, 2022: Multi-year El Nino events tied to the North Pacific Oscillation, *Nature Communications*, 13, 3871 (2022). doi: 10.1038/s41467-022-31516-9.
- **(121)** Xiao, H.-M., M.-H. Lo*, and **J.-Y. Yu**, 2022: The Increased Frequency of Combined El Nino and Positive IOD events since 1965s and Its Impacts on Maritime Continent Hydroclimates, *Scientific Reports*, 12, 7532 (2022). doi:10.1038/s41598-022-11663-1.
- **(120)** Chen, J., **J.-Y. Yu**, S. Chen,X. Wang1, Z. Xiao, and S.-W. Fang, 2022: Tropical and Subtropical Pacific Sources of the Asymmetric El Nino-La Nina Decay and their Future Changes, *Geophysical Research Letters*, doi:10.1029/2022GL097751.

- **(119)** Chen, N., X. Fang*, and **J.-Y. Yu**, 2022: A Multiscale Model for El Nino Complexity, *npj Climate and Atmospheric Science*, 5 (6). doi:10.1038/s41612-022-00241-x.

2021

- **(118)** Qian, W., A. Yang, J.-Y. Yu, J. Du, 2021: Opposite anomalous synoptic patterns for potential California large wildfire spread and extinguishing in 2018 cases, *Atmospheric Research*, **262**, 105804, doi: 10.1016/j.atmosres.2021.105804.
- **(117)** Chen, M., **J.-Y. Yu***, X. Wang*, and S. Chen, 2021: Distinct onset mechanisms of two subtypes of CP El Nino and their changes in future warming. *Geophysical Research Letters*, doi:10.1029/2021GL093707.
- **(116)** Lin*, I.-I., R. F. Rogers, H.-C. Huang, Y.-C. Liao, D. Herndon, **J.-Y. Yu**, Y.-T. Chang, J. A. Zhang, C. M. Patricola, I.-F. Pun, C.-C. Lien, 2021: A Tale of Two Rapidly-Intensifying Supertyphoons: Hagibis (2019) and Haiyan (2013), *Bulletin of the American Meteorological Society*, **102**, 1645-1664. doi:10.1175/BAMS-D-20-0223.1.
- **(115)** Kim, J.-W., T.-H. Chang, C.-T. Lee, and **J.-Y. Yu***, 2021: On the Varying Responses of East Asian Winter Monsoon to Three Types of El Nino: Observations and Model Hindcasts, *Journal of Climate*, **34**, 4089-4101. doi:10.1175/JCLI-D-20-0784.1.
- **(114)** Lin, Y.-F., J.-Y. Yu*, C.-R. Wu, and F. Zheng, 2021: The footprint of the 11-year solar cycle in Northeastern Pacific SSTs and its influence on the Central Pacific El Nino, *Geophysical Research Letters*. **48**, e2020GL091369. DOI: 10.1029/2020GL091369.
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SCIENTIFIC MEETING ORGANISED

2026 Co-Chair, Workshop on Pantropical Climate Dynamics and 2026 Super El Niño, Taipei, Taiwan, 16 September 2026.

2026 Session Co-Convener, " Tropical and Polar Ocean-land-atmosphere Interactions and Their Teleconnections", The 22nd Annual Meeting of Asia Oceania Geosciences Society (AOGS), Fukuoka, Japan, 2-7 August 2026.

2025 Session Chair, [JMP09]-PM2 "El Niño/Southern Oscillation and its Global and Regional Impacts",

BACO2025 (Busan IAMAS-IACS-IAPSO Joint Assembly), Busan, South Korea, 20–25 July 2025.

2025 Session Co-Convener, "The Influences of Planetary Wave and Cold Vortex Systems in Mid-high Latitudes on Extreme Weather and Climate Events", The 2025 Asia Oceania Geosciences Society (AOGS) Annual Meeting, Singapore, 27 July–1 August 2025.

2024 Member, Scientific Steering Committee, Vision Marine Conference, Kaohsiung, Taiwan

2023 Member, Scientific Steering Committee, The 12th International Workshop on Tropical Marine Environmental Changes (MEC 2023), Guangzhou, China

2021 Member, Scientific Steering Committee, The 11th International Workshop on Tropical Marine Environmental Changes (MEC 2021), Guangzhou, China

2019 Member, Scientific Steering Committee, "Ocean-atmosphere interactions and climate", 10th International Workshop on Tropical Marine Environmental Changes (MEC 2019): The Oceans and Climate, Guangzhou, China.

2019 Session Chair, "Ocean-atmosphere interactions and climate", The Fourth Xiamen Symposium on Marine Environmental Sciences (XMAS), Xiamen, China.

2018 Session Co-Chair, "Intraseasonal variability and predictability", Workshop on Intraseasonal oscillations and extended-range prediction of persistent weather events, Taipei, Taiwan.

2018 Session Co-Chair, "Influences of WPO on regional and global climate and their predictability", The Third Open Science Symposium (OSS) on Western Pacific Ocean Circulation and Climate (WPOC), Qingdao, China.

2018 Session Co-Chair, "Western Pacific and Indonesian seas circulation and its environmental and climatic impacts", The 2018 Ocean Sciences Meeting, Portland, Oregon, USA.

2018 Session Co-Chair, "ENSO Dynamics, Diversity, Prediction, and Impacts", American Meteorological Society 98th Annual Meeting, Austin, Texas, USA.

2017 Session Chair, "Monsoonal and climatic effects", The 2nd International Symposium on Western Pacific Ocean Circulation -Indonesian Throughflow (WPOC-ITF) studies, Lombok, Indonesia.

2017 Scientific Organizing Committee, The 2nd International Symposium on Western Pacific Ocean Circulation -Indonesian Throughflow (WPOC-ITF) studies, Lombok, Indonesia.

2016 Session Chair, "Climate", Conference on Hurricanes and Tropical Meteorology, San Juan, Puerto Rico.

2016 Session Co-Chair, "Advances In Data Assimilation And Ensemble Forecast: Applications To Studies And Predictability Of Atmosphere-ocean Variability", The 13th Annual Meeting for Asia Oceania Geosciences Society, Beijing, China.

2016 Session Chair, "Climate", Conference on Hurricanes and Tropical Meteorology, San Juan, Puerto Rico,

2016 Session Co-Chair, "Advances In Data Assimilation And Ensemble Forecast: Applications To Studies And Predictability Of Atmosphere-ocean Variability", The 13th Annual Meeting for Asia Oceania Geosciences Society, Beijing, China,

2015 Session Co-Chair, “Monitoring, Understanding and Forecasting of the 2014/15 and 2015 El Niño and the Record warming of the North Pacific Ocean”, AGU Annual Fall Meeting, San Francisco, California.

2015 Session Co-Chair, “Toward a better understanding of moist process feedbacks and their role in the climate system”, AGU Annual Fall Meeting, San Francisco, California.

2015 Session Co-Chair, “Climate Variability and Predictability”, International Geographic Union (IGU) Regional Conference, Moscow, Russia.

2014 Session Co-Chair, “Toward a better understanding of moist process feedbacks and their role in the climate system”, AGU Annual Fall Meeting, San Francisco, California.

2014 Session Co-Chair, “Advances in Data Assimilation and Forecast Systems for ocean-atmosphere variability”, AOGS 11th Annual Meeting, Sapporo, Japan.

2013 Session Co-Chair, “Grand challenges in moist process feedback in the climate system”, AGU Annual Fall Meeting, San Francisco, California.

2012 Session Co-Chair, “El Niño in a Changing Climate System: Observations, Theory, and Modeling”, AOGS – AGU (WPGM) Joint Assembly, Singapore.

2010 Session Chair, “El Niño: Recent Advances in Theory, Impact, Prediction, and Modeling”, AGU Western Pacific Geophysics Meeting, Taipei, Taiwan.

2010 Session Co-Chair, “Atmosphere-Land Interaction”, AGU Western Pacific Geophysics Meeting, Taipei,

Taiwan.

2010 Session Co-Chair, "Climate Monitoring and Prediction", COAA 5th International Conference on Atmosphere-Ocean Interaction, Taipei, Taiwan.

2009 Program Chair, COAA-SC Summer Workshop, California Institute of Technology, Pasadena, California.

2008 Program Chair, COAA-SC Summer Workshop, Irvine, California.

2008 Session Co-Chair, "ENSO and Global Change: Past, Present, and Future", AGU Annual Fall Meeting, San Francisco, California.

2004 Session Chair, International Conference on Tropical Weather and Climate, Guangzhou, China.

2004 Session Chair, UCI Undergraduate Research Symposium, Session of Physical Science.

2000 Program Chair, International Conference on Environmental Modeling and Simulation, San Diego, California.

1999 Program Chair, The International Conference on Mission Earth, San Francisco, California.

1998 Program Chair, The 1998 Conference on Mission Earth: Modeling and Simulation of the Earth System, San Diego, California.