

Yang Yang

Associate Professor

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Education

2012–2017: Ph.D. in Meteorology, School of Atmospheric Sciences, Nanjing University of Information Science and Technology. Advisor: Prof. X. San Liang

2008–2012: B.S. in Oceanography, School of Marine Sciences, Nanjing University of Information Science and Technology

Academic Experience

2023–Present: Associate Professor, College of Ocean and Earth Sciences, Xiamen University

2019: Visiting Scholar, College of Marine Science, University of South Florida, USA

2017–2023: Lecturer, School of Marine Sciences, Nanjing University of Information Science and Technology

Awards

2016: “Young Scientist Award”, 2nd Congress of China Geodesy and Geophysics.

2009: “National Scholarship”, Ministry of Education of the People's Republic of China.

Publications

Yang, Y., G. Fu, X. S. Liang, R. H. Weisberg, and Y. Liu, 2023: Causal relations between the loop current penetration and the inflow/outflow conditions inferred with a rigorous quantitative causality analysis. *Deep Sea Research Part II: Topical Studies in Oceanography*, 209, 105298, <https://doi.org/10.1016/j.dsr2.2023.105298>.

Yang, Y., X. S. Liang, H. Sasaki, 2021: Vertical coupling and dynamical source for the intraseasonal variability in the deep Kuroshio Extension. *Ocean Dynamics*, 71(11), 1069–1086, <https://doi.org/10.1007/s10236-021-01482-9>.

Yang, Y., J. C. McWilliams, X. S. Liang, H. Zhang, R. H. Weisberg, Y. Liu, and D. Menemenlis, 2020: Spatial and Temporal Characteristics of the Submesoscale Energetics in the Gulf of Mexico. *Journal of Physical Oceanography*, 51(2), 475–489, <https://doi.org/10.1175/JPO-D-20-0247.1>.

Yang, Y., R. H. Weisberg, Y. Liu, and X. S. Liang, 2020: Instabilities and Multiscale Interactions Underlying the Loop Current Eddy Shedding in the Gulf of Mexico. *Journal of Physical Oceanography*, 50(5), 1289–1317, <https://doi.org/10.1175/JPO-D-19-0202.1>.

- Yang, Y., and X. S. Liang, 2019: Spatiotemporal Variability of the Global Ocean Internal Processes Inferred from Satellite Observations. *Journal of Physical Oceanography*, 49(8), 2147–2164, <https://doi.org/10.1175/JPO-D-18-0273.1>.
- Yang, Y., and X. S. Liang, 2019: New Perspectives on the Generation and Maintenance of the Kuroshio Large Meander. *Journal of Physical Oceanography*, 49(8), 2095–2113, <https://doi.org/10.1175/JPO-D-18-0276.1>.
- Yang, Y., and X. S. Liang, 2019: The Intrinsic Nonlinear Multiscale Interactions among the Mean Flow, Low Frequency Variability and Mesoscale Eddies in the Kuroshio Region. *Sci. China Earth Sci.*, 62(3), 595–608, <https://doi.org/10.1007/s11430-018-9289-4>.
- Yang, Y., and X. S. Liang, 2018: On the Seasonal Eddy Variability in the Kuroshio Extension. *Journal of Physical Oceanography*, 48(8), 1675–1689, <https://doi.org/10.1175/JPO-D-18-0058.1>.
- Yang, Y., X. S. Liang, B. Qiu, and S. Chen, 2017: On the Decadal Variability of the Eddy Kinetic Energy in the Kuroshio Extension. *Journal of Physical Oceanography*, 47(5), 1169–1187, <https://doi.org/10.1175/JPO-D-16-0201.1>.
- Yang, Y., and X. S. Liang, 2016: The Instabilities and Multiscale Energetics Underlying the Mean–Interannual–Eddy Interactions in the Kuroshio Extension Region. *Journal of Physical Oceanography*, 46(5), 1477–1494, <https://doi.org/10.1175/JPO-D-15-0226.1>.
- Liu, J., L. Tao, and Y. Yang, 2023: Dynamical analysis of multi-scale interaction during the “21·7” persistent rainstorm in Henan. *Atmospheric Research*, 292, 106857, <https://doi.org/10.1016/j.atmosres.2023.106857>.
- Huang, M., Y. Yang, and X. Liang, 2023: Seasonal Eddy Variability in the Northwestern Tropical Atlantic Ocean. *Journal of Physical Oceanography*, 53(4), 1069–1085, <https://doi.org/10.1175/JPO-D-22-0200.1>.
- Li, G., Y. He, Y. Yang, G. Liu, X. Lu, and W. Perrie, 2023: Multiscale energy analysis of the impact of Typhoon Kalmaegi in the South China Sea. *Deep Sea Research Part I: Oceanographic Research Papers*, 194, 103968, <https://doi.org/10.1016/j.dsr.2023.103968>.
- He, W.-B., Y. Yang, and X. S. Liang, 2023: Mechanisms for generating and connecting the Yanai-mode and Rossby-mode tropical instability waves in the equatorial Pacific. *Deep Sea Research Part I: Oceanographic Research Papers*, 197, 104041, <https://doi.org/10.1016/j.dsr.2023.104041>.
- Song, K., L. Tao, and Y. Yang, 2023: On the intensification of typhoon Damrey with the monsoon gyre. *Quarterly Journal of the Royal Meteorological Society*, 149(751), 588–607, <https://doi.org/10.1002/qj.4425>.
- Quan, Q., Z. Liu, Y. Yang, Z. Cai, H. Zhang, and X. Liu, 2022: Characterization of intraseasonal fluctuations in the abyssal South China Sea: An insight into the energy pathway. *Progress in Oceanography*, 206, 102829, <https://doi.org/10.1016/j.pocean.2022.102829>.
- Zhao Y, Yang Y, Liang X S, Zhang Y. 2021. Different mechanisms for the seasonal variations of the mesoscale eddy energy in the South China Sea. *Deep Sea Research Part I: Oceanographic Research Papers*, 179, 103677.
- Quan, Q., Z. Liu, S. Sun, Z. Cai, Y. Yang, G. Jin, Z. Li, and X. S. Liang, 2021: Influence of the Kuroshio Intrusion on Deep Flow Intraseasonal Variability in the Northern South China Sea. *J. Geophys. Res. Oceans*, 126, e2021JC017429.

Talks & Posters

- 2023 Jan: “Spatial and Temporal Characteristics of the Submesoscale Energetics in the Gulf of Mexico.” (Talk) Sixth Xiamen Symposium on Marine Environmental Sciences (XMAS-VI), Xiamen, China.
- 2022 Dec: “Multiscale Energetics: Theory and Applications.” (Invited Talk) College of Ocean and Meteorology, Guangdong Ocean University, Zhanjiang, China.
- 2022 Dec: “Recent Progress on the Instabilities and Multiscale Interactions in the Western North Pacific and South China Sea.” (Talk) 2022 South China Sea Annual Meeting, Nanchang, China.
- 2022 Aug: “Vertical coupling and dynamical source for the intraseasonal variability in the deep Kuroshio Extension.” (Talk) 2022 AOGS Meeting.
- 2022 Mar: “Vertical coupling and dynamical source for the intraseasonal variability in the deep Kuroshio Extension.” (Talk) 2022 Ocean Sciences Meeting.
- 2021 Nov: “Spatial and Temporal Characteristics of the Submesoscale Energetics in the Gulf of Mexico.” (Talk) AGU Fall Meeting 2021, New Orleans, USA.
- 2021 Nov: “Vertical coupling and dynamical source for the intraseasonal variability in the deep Kuroshio Extension.” (Talk) International Association of Meteorological Education and Sciences Conference, Nanjing, China.
- 2021 Nov: “Vertical coupling and dynamical source for the intraseasonal variability in the deep Kuroshio Extension.” (Invited Talk) Workshop: Approaches for Hydrospheric-Atmospheric Environmental Studies in Asia-Oceania, Nagoya University.
- 2021 Jun: “Spatial and Temporal Characteristics of the Submesoscale Energetics in the Gulf of Mexico.” (Invited Talk) Hohai University.
- 2020 Aug: “Instabilities and Multiscale Interactions Underlying the Loop Current Eddy Shedding in the Gulf of Mexico.” (Invited Talk) Application Laboratory, JAMSTEC, Japan.
- 2020 Jun: “Spatial and Temporal Characteristics of the Submesoscale Energetics in the Gulf of Mexico.” (Invited Talk) State Key Laboratory of Tropical Oceanography (SCSIO, CAS).
- 2020 May: “Instabilities and Multiscale Interactions Underlying the Loop Current Eddy Shedding in the Gulf of Mexico.” (Talk) 4th Young Scientist Forum on Ocean Dynamics, Xiamen, China.
- 2020 Feb: “Instabilities and Multiscale Interactions Underlying the Loop Current Eddy Shedding in the Gulf of Mexico.” (Poster) Ocean Sciences Meeting 2020, San Diego, CA, USA.
- 2020 Feb: “Instabilities and Multiscale Interactions Underlying the Loop Current Eddy Shedding in the Gulf of Mexico.” (Talk) 2020 Gulf of Mexico Oil Spill and Ecosystem Science Conference, Tampa, Florida, USA.
- 2019 Nov: “Instabilities and Multiscale Interactions Underlying the Loop Current Eddy Shedding in the Gulf of Mexico.” (Poster) AGU Fall Meeting 2019, San Francisco, CA, USA.
- 2017 Sep: “The Instabilities and Multiscale Energetics Underlying the Mean–Interannual–Eddy Interactions in the Kuroshio Extension Region.” (Talk) 5th Nonlinear Atmosphere–Ocean Conference, Wuhan, China.
- 2016 Dec: “On the Decadal Variability of the Eddy Kinetic Energy in the Kuroshio Extension.” (Poster) Marine Environment and Climate Change Seminar, Nanjing, China.
- 2016 Sep: “The Instabilities and Multiscale Energetics Underlying the Mean–Interannual–Eddy Interactions in the Kuroshio Extension Region” (Talk) 2nd Congress of China Geodesy and Geophysics (CCGG2016), Nanjing, China.

Teaching

2021 Fall: Lecturer, “Fluid Mechanics”, (Undergraduate level course), Nanjing University of Information Science and Technology.

2020 Spring/2021 Spring: Lecturer, “Coastal and Regional Oceanography”, (Undergraduate level course), Nanjing University of Information Science and Technology.

2018 Fall: Lecturer, “Introduction to Physical Oceanography”, (Undergraduate level course), Nanjing University of Information Science and Technology.

2017 Fall/2020 Fall/2021 Fall: Lecturer, “Mathematical Methods in Atmosphere-Ocean Science”, (Graduate level course), Nanjing University of Information Science and Technology.

Research Grants

2023–2026 PI, Process-distinguished Multiscale Window Transform and Localized Energy Cascading Underlying Submesoscale Turbulences, NSFC.

2019–2021 PI, A Study of the Energetic Characteristics and Dynamics of the Low-frequency Variability of the Kuroshio Extension, NSFC.

2018–2020 PI, Natural Science Foundation of the Higher Education Institutions of Jiangsu Province.

2017–2020 PI, Startup Foundation for Introducing Talent of NUIST.