

Recent 5-yr publications (Published)

(1–16)

1. J. Schmitt, K.-C. Tseng, M. Hughes, N. C. Johnson, Illuminating snow droughts: The future of Western United States snowpack in the SPEAR large ensemble. *J. Geophys. Res.* **129**, e2023JD039754 (2024).
2. K.-C. Tseng, Y.-H. Ho, The subseasonal predictability of the western North Pacific subtropical high and the 2020 record-breaking event. *Npj Clim. Atmos. Sci.* **7** (2024).
3. B. Jong, T. Delworth, W. Cooke, K. Tseng, H. Murakami, Increases in extreme precipitation over the Northeast United States using high-resolution climate model simulations. *Npj Clim. Atmos. Sci.* **6**, 1–9 (2023).
4. C. Bowers, K. A. Serafin, K.-C. Tseng, J. W. Baker, Atmospheric river sequences as indicators of hydrologic hazard in historical reanalysis and GFDL SPEAR future climate projections. *Earths Future* **11** (2023).
5. L. Jia, T. L. Delworth, S. Kapnick, X. Yang, N. C. Johnson, W. Cooke, F. Lu, M. Harrison, A. Rosati, F. Zeng, C. McHugh, A. T. Wittenberg, L. Zhang, H. Murakami, K.-C. Tseng, Skillful Seasonal Prediction of North American Summertime Heat Extremes. *J. Clim.* **35**, 4331–4345 (2022).
6. M. Bushuk, Y. Zhang, M. Winton, B. Hurlin, T. Delworth, F. Lu, L. Jia, L. Zhang, W. Cooke, M. Harrison, N. C. Johnson, S. Kapnick, C. McHugh, H. Murakami, A. Rosati, K.-C. Tseng, A. T. Wittenberg, X. Yang, F. Zeng, Mechanisms of Regional Arctic Sea Ice Predictability in Two Dynamical Seasonal Forecast Systems. *J. Clim.* **35**, 4207–4231 (2022).
7. L. Zhang, T. L. Delworth, S. Kapnick, J. He, W. Cooke, A. T. Wittenberg, N. C. Johnson, A. Rosati, X. Yang, F. Lu, M. Bushuk, C. McHugh, H. Murakami, F. Zeng, L. Jia, K.-C. Tseng, Y. Morioka, Roles of meridional overturning in subpolar Southern Ocean SST trends: Insights from ensemble simulations. *J. Clim.* **35**, 1577–1596 (2022).
8. K.-C. Tseng, N. C. Johnson, S. B. Kapnick, W. Cooke, T. L. Delworth, L. Jia, F. Lu, C. McHugh, H. Murakami, A. J. Rosati, A. T. Wittenberg, X. Yang, F. Zeng, L. Zhang, When will humanity notice its influence on atmospheric rivers? *J. Geophys. Res.* **127** (2022).
9. G. Zhang, H. Murakami, W. F. Cooke, Z. Wang, L. Jia, F. Lu, X. Yang, T. L. Delworth, A. T. Wittenberg, M. J. Harrison, M. Bushuk, C. McHugh, N. C. Johnson, S. B. Kapnick, K.-C. Tseng, L. Zhang, Seasonal predictability of baroclinic wave activity. *npj Climate and Atmospheric Science* **4**, 1–11 (2021).
10. K.-C. Tseng, N. C. Johnson, S. B. Kapnick, T. L. Delworth, F. Lu, W. Cooke, A. T. Wittenberg, A. J. Rosati, L. Zhang, C. McHugh, X. Yang, M. Harrison, F. Zeng, G. Zhang,

- H. Murakami, M. Bushuk, L. Jia, Are multiseasonal forecasts of atmospheric rivers possible? *Geophys. Res. Lett.* **48** (2021).
11. M. Bushuk, M. Winton, F. Alexander Haumann, T. Delworth, F. Lu, Y. Zhang, L. Jia, L. Zhang, W. Cooke, M. Harrison, B. Hurlin, N. C. Johnson, S. B. Kapnick, C. McHugh, H. Murakami, A. Rosati, K.-C. Tseng, A. T. Wittenberg, X. Yang, F. Zeng, Seasonal Prediction and Predictability of Regional Antarctic Sea Ice. *J. Clim.* **34**, 6207–6233 (2021).
  12. Y. L. Chen, C. H. Sui, C. P. Chang, K. C. Tseng, Effect of the MJO on East Asian winter rainfall as revealed by an SVD analysis. *J. Clim.* (2021).
  13. K.-C. Tseng, N. C. Johnson, E. D. Maloney, E. A. Barnes, S. B. Kapnick, Mapping large-scale climate variability to hydrological extremes: An application of the linear inverse model to subseasonal prediction. *J. Clim.*, 1–58 (2020).
  14. K. C. Tseng, E. Maloney, E. A. Barnes, The Consistency of MJO teleconnection patterns on interannual time scales. *J. Clim.* (2020).
  15. K. C. Tseng, E. A. Barnes, E. Maloney, The importance of past MJO activity in determining the future state of the midlatitude circulation. *J. Clim.* (2020).
  16. K. C. Tseng, E. Maloney, E. Barnes, The consistency of MJO teleconnection patterns: An explanation using linear Rossby wave theory. *J. Clim.* (2019).

Recent 5-yr publications (Submitted/in revision)

\*=mentored students

17. Hsu, S.-P.\*, H.-J. Tai, C.-H. Sui, Y.-C. Kan\*, and K.-C. Tseng 2024: The Roles of Shallow Convection and Cloud-Radiative Feedback in Convectively-Coupled Kelvin Waves (submitted to Journal of Climate)
18. Xiao, H.-M., K.-C. Tseng, J.-Y. Yu, H.-H. Hsu, T.-H. Lee, M.-H. Lo, 2024: The Enhanced Tele-connection of Maritime Continent Deforestation on North Pacific Climate During La Nia Conditions (submitted to Journal of Climate)
19. Loi, C. L.,\* K.-C. Tseng and C.-C. Wu., 2024: Order in Chaos: Solving the Analytical Solution of Ensemble Forecast with Data-driven Liouville equation (submitted to npj, Climate and Atmospheric Science, Nature, co-first author)
20. Tseng K.-C., R. Kuo\*, and Y.-A. Feng\*, 2024: Order in Chaos: Solving the Analytical Solution of Ensemble Forecast with Data-driven Liouville equation (submitted to JAMES)
21. Tseng K.-C., and co-authors 2024: Skillful forecasts of springtime CONUS tornado activity up to a year in advance (submitted to npj, Climate and Atmospheric Science, Nature)
22. Zhang, W., B. Xiang, K.-C. Tseng N. Johnson, L. Harris, T. Delworth, 2024: Subseasonal prediction of wintertime atmospheric rivers in the GFDL SPEAR model. (submitted to npj, Climate and Atmospheric Science, Nature)