

Publication List of Hung-Chi Kuo (郭鴻基)

	All	Since 2020
Papers	98	31
Citations	6393	3038
H index	43	27
i10 index	85	65

1. Kuo, H.-C., and W. H. Schubert, 1988: Stability of cloud-topped boundary layers. *Quart. J. Roy. Meteor. Soc.*, **114**, 887-916.
2. Hack, J. J., W. H. Schubert, D. E. Stevens, and H.-C. Kuo, 1989: Response of the Hadley circulation to convective forcing in the ITCZ. *J. Atmos. Sci.*, **46**, 2957-2973.
3. Stevens, D. E., H.-C. Kuo, W. H. Schubert, and P. E. Ciesielski, 1990: Quasi-balanced dynamics in the tropics. *J. Atmos. Sci.*, **47**, 2262-2273.
4. Kuo, H.-C., and R. T. Williams, 1990: Semi-Lagrangian solutions to the inviscid Burgers equation. *Mon. Wea. Rev.*, **118**, 1278-1288.
5. Kuo, H.-C., 1990: Radiation effects in the cloud-topped marine boundary layer. *TAO*, **1**, 45-71.
6. Schubert, W. H., P. E. Ciesielski, D. E. Stevens, and H.-C. Kuo, 1991: Potential vorticity modeling of the ITCZ and the Hadley Circulation. *J. Atmos. Sci.*, **48**, 1493-1509.
7. Kuo, H.-C., and R. T. Williams, 1992: Boundary effects in regional spectral models. *Mon. Wea. Rev.*, **120**, 2986-2992.
8. Kuo, H.-C., and W. H. Schubert, 1993: Balanced atmospheric response to a moving heat source. 2nd International Conference on East Asia and Western Pacific Meteorology and Climate. 83-91.
9. Kuo, H.-C., and S.-W. Chen, 1993: Semigeostrophic invertibility experiments with TAMEX data. *TAO*, **4**, 179-200.
10. Kuo, H.-C., and C.-H. Horng, 1994: A study of finite amplitude barotropic instability. *TAO*, TAMEX Special Issue, **5**, 199-243.
11. Kuo, H.-C., and W. A. Nuss, 1995 :P Vectors as a diagnostic tool for synoptic-scale circulations. *Mon. Wea. Rev.*, **123**, 776-789.
12. Liou, C.-S., J.-H. Chen, C.-T. Terng, F.-J. Wang, C.-T. Fong, T. E. Rosmond, H.-C. Kuo, C.-H. Shiao, and M.-D. Cheng, 1997: The second-generation global forecast system at the central weather bureau in Taiwan. *Wea. Forecasting*, **12**, 653-663.
13. Kuo, H.-C., and R. T. Williams, 1998: Scale-dependent accuracy in regional spectral methods. *Mon. Wea. Rev.*, **126**, 2640-2647.
14. Chang, C.-P., S.-C. Hou, H.-C. Kuo, and G. T.-J. Chen, 1998: The development of an intense East Asian summer monsoon disturbance with strong vertical coupling. *Mon. Wea. Rev.*, **126**, 2692-2712.
15. Kuo, H.-C., R. T. Williams, and J.-H. Chen, 1999: A possible mechanism for the

- eye rotation of typhoon Herb. *J. Atmos. Sci.*, **56**, 1659-1673.
16. Kuo, H.-C., T.-M. Leou, and R. T. Williams, 1999: A study on the high-order Smolarkiewicz methods. *Computers and Fluids*, **28**, 779-799.
 17. Kuo, H.-C., and C.-T. Cheng, 1999: Experiments with a spectral convection model. *TAO*, **10**, 651-692.
 18. Wu, C.-C., H.-C. Kuo, H.-H. Hsu, and B. J.-D. Jou, 2000: Weather and climate research in Taiwan: Potential application of GPS/MET data. *TAO*, **11**, 211-234.
 19. Kuo, H.-C., G. T.-J. Chen, and C.-H. Lin, 2000: Merger of tropical cyclones Zeb and Alex. *Mon. Wea. Rev.*, **128**, 2967-2975.
 20. Schubert, W. H., S. A. Hausman, M. Garcia, K. V. Ooyama, and H.-C. Kuo, 2001: Potential vorticity in a moist atmosphere. *J. Atmos. Sci.*, **58**, 3148-3157.
 21. Kuo, H.-C., R. T. Williams, J.-H. Chen, and Y.-L. Chen, 2001: Topographic effects on barotropic vortex motion: No mean flow. *J. Atmos. Sci.*, **58**, 1310-1327.
 22. Kuo, H.-C., J.-H. Chen, R. T. Williams, and C.-P. Chang, 2001: Rossby waves in zonally opposing mean flow: Behavior in Northwest Pacific summer monsoon. *J. Atmos. Sci.*, **58**, 1035-1050.
 23. Chang, C.-P., C.-H. Liu, and H.-C. Kuo, 2003: Typhoon Vamei: An equatorial tropical cyclone formation. *Geophys. Res. Lett.*, **30**, 1151-1154.
 24. Schubert, W. H., E. Ruprecht, R. Hertenstein, R. N. Ferreira, R. Taft, C. Rozoff, P. Ciesielski, and H.-C. Kuo, 2004: English translations of twenty-one of Ertel's papers on geophysical fluid dynamics. *Meteor. Zeit.*, **13**, 527-576.
 25. Kuo, H.-C., L.-Y. Lin, C.-P. Chang, and R. T. Williams, 2004: The formation of concentric vorticity structures in typhoons. *J. Atmos. Sci.*, **61**, 2722-2734.
 26. Kuo, H.-C., W. H. Schubert, C.-L. Tsai, and Y.-F. Kuo, 2008: Vortex interactions and barotropic aspects of concentric eyewall formation. *Mon. Wea. Rev.*, **136**, 5183-5198.
 27. Kuo, H.-C., L.-Y. Lin, C.-L. Tsai, and Y.-L. Chen, 2008: Vortex interactions and typhoon concentric eyewall formation. *Recent Progress in Atmospheric Sciences: Applications to the Asia-Pacific Region*, The World Scientific Publishing Company, 157-171.
 28. Kuo, H.-C., C.-P. Chang, Y.-T. Yang, and H.-J. Jiang, 2009: Western North Pacific typhoons with concentric eyewalls. *Mon. Wea. Rev.*, **137**, 3758-3770.
 29. Fovell, R. G., K. L. Corbosiero and H.-C. Kuo, 2009: Cloud microphysics impact on hurricane track as revealed in idealized experiments. *J. Atmos. Sci.*, **66**, 1764-1778.
 30. Tsai, Y.-M., H.-C. Kuo, and W. H. Schubert, 2010: Filamentation time diagnosis of thinning troughs and cutoff lows. *Mon. Wea. Rev.*, **138**, 2327-2335.
 31. Chien, F. -C., and H.-C. Kuo, 2011: On the extreme rainfall of Typhoon Morakot (2009). *J. Geo. Res.*, **116**, D05104, doi:10.1029/2010JD015092..
 32. Pan, T.-Y., Y.-T. Yang, H.-C. Kuo, Y.-C. Tan, J.-S. Lai, T.-J. Chang, C.-S. Lee,

- and K. H. Hsu, 2011: Improvement of statistical typhoon rainfall forecasting with ANN-Based southwest monsoon enhancement. *TAO*, **22**, 633-645.
33. Hendricks E. A., H.-C. Kuo, M. S. Peng, and D. Hodyss, 2011: Barotropic aspects of hurricane structural and intensity variability. *In-Tech*, Vienna, Austria, 145-170.
 34. Tsai, Y.-M., H.-C. Kuo, Y.-C. Chang, and Y.-H. Tseng, 2012: A new parallel domain-decomposed Chebyshev collocation method for atmospheric and oceanic modeling. *TAO*, **23**, 439-450.
 35. Su, S.-H., H.-C. Kuo, L.-H. Hsu, and Y.-T. Yang, 2012: Temporal and spatial characteristics of typhoon extreme rainfall in Taiwan. *J. Meteor. Soc. Japan*, **90**, 721-736.
 36. Cheng, T.-W., Y.-H. Chang, S.-L. Tang, C.-H. Tseng, P.-W. Chiang, K.-T. Chang, C.-H. Sun, Y.-G. Chen, H.-C. Kuo, C.-H. Wang, P.-H. Chu, S.-R. Song, P.-L. Wang, and L.-H. Lin, 2012: Metabolic stratification driven by surface and subsurface interactions in a terrestrial mud volcano. *ISMEJ*, **6**, 2280-2290.
 37. Kuo, H.-C., C.-P. Chang, and C.-H. Liu, 2012: Convection and rapid filamentation in Typhoon Sinlaku during TCS-08/T-PARC. *Mon. Wea. Rev.*, **140**, 2806-2817.
 38. Wang, C.-C., H.-C. Kuo, Y.-H. Chen, H.-L. Huang, C.-H. Chung, and K. Tsuboki, 2012: Effects of asymmetric latent heating on typhoon movement crossing Taiwan: The case of Morakot (2009) with extreme rainfall. *J. Atmos. Sci.*, **69**, 3172-3196.
 39. Chang, C.-P., Y.-T. Yang, and H.-C. Kuo, 2013: Large increasing trend of tropical cyclone rainfall in Taiwan and the roles of terrain. *J. Climate.*, **26**, 4138-4147.
 40. Wang, C.-C., Y.-H. Chen, H.-C. Kuo, and S.Y. Huang, 2013: Sensitivity of typhoon track to asymmetric latent heating/rainfall induced by Taiwan topography: A numerical study of Typhoon Fanapi (2010). *J. Geophys. Res.*, **118**, 3292-3308.
 41. Hsu, L.-H., H.-C. Kuo, and R. G. Fovell, 2013: On the geographic asymmetry of typhoon translation speed across the mountainous island of Taiwan. *J. Atmos. Sci.*, **70**, 1006-1022.
 42. Yang, Y.-T., H.-C. Kuo, E. A. Hendricks, M. S. Peng, 2013: Structural and intensity changes of concentric eyewall typhoons in the Western North Pacific basin. *Mon. Wea. Rev.*, **141**, 2632-2648.
 43. Lee, C.-S., H.-Y. Ho, K.-T. Lee, Y.-C. Wang, W.-D. Guo, Delia Y.-C. Chen, L.-F. Hsiao, C.-H. Chen, C.-C. Chiang, M.-J. Yang, and H.-C. Kuo, 2013: Assessment of sewer flooding model based on ensemble quantitative precipitation forecast. *J. Hydrol.*, **506**, 101-113.
 44. Pan, T.-Y., Y.-T. Yang, H.-C. Kuo, Y.-C. Tan, J.-S. Lai, T.-J. Chang, C.-S. Lee, and K. H. Hsu, 2013: Improvement of watershed flood forecasting by typhoon rainfall climate model with an ANN-based southwest monsoon rainfall enhancement. *J. Hydrol.*, **506**, 90-100.
 45. Hsiao, L.-F., M.-J. Yang, C.-S. Lee, H.-C. Kuo, D.-S. Shih, C.-C. Tsai, C.-J.

- Wang, L.-Y. Chang, D. Y.-C. Chen, L. Feng, J.-S. Hong, C.-T. Fong, D.-S. Chen, T.-C. Yeh, C.-Y. Huang, W.-D. Guo, and G.-F. Lin, 2013: Ensemble forecasting of typhoon rainfall and floods over a mountainous watershed in Taiwan. *J. Hydrol.*, **506**, 55-68.
46. Wang, C.-C., H.-C. Kuo, T.-C. Yeh, C.-H. Chung, Y.-H. Chen, S.-Y. Huang, Y.-W. Wang, and C.-H. Liu, 2013: High-resolution quantitative precipitation forecasts and simulations by the Cloud-Resolving Storm Simulator (CReSS) for Typhoon Morakot (2009). *J. Hydrol.*, **506**, 26-41.
 47. Yang Y.-T., E. A. Hendricks, H.-C. Kuo, and M. S. Peng, 2014: Long-lived Concentric Eyewalls in Typhoon Soulik (2013). *Mon. Wea. Rev.*, **142**, 3365–3371.
 48. Chang, C.-P., M. Ghil, H.-C. Kuo, M. Latif, C.-H. Sui, and J. M. Wallace, 2014: Understanding multidecadal climate changes. *Bull. Amer. Meteor. Soc.*, **1**, 293-296.
 49. Hendricks, E. A., W. H. Schubert, Y.-H. Chen, H.-C. Kuo, and M. S. Peng, 2014: Hurricane eyewall evolution in a forced shallow-water Model. *J. Atmos. Sci.*, **71**, 1623-1643.
 50. Chang, C.-P., H.-C. Kuo, and C.-H. Sui, 2015: Climate change: multidecadal and beyond. Chapter 20: Record-Breaking Increase of Tropical Cyclone Heavy Rainfall in Taiwan in the First Decade of 21st Century, C.-P. Chang, et al., Ed., World Scientific Publishing Co. Inc., USA. (Book Chapter)
 51. Yang, Y.-T., H.-C. Kuo, E. A. Hendricks, Y.-C. Liu, and M. S. Peng, 2015: Relationship between typhoons with concentric eyewalls and ENSO in the Western North Pacific basin. *J. Climate*, **28**, 3612–3623.
 52. Yu, H., P. E. Ciesielski, J. Wang, H.-C. Kuo, H. Vömel, and R. Dirksen, 2015: Evaluation of humidity correction methods for Vaisala RS92 tropical sounding data. *J. Atmos. Oceanic Technol.*, **32**, 397–411.
 53. Wang, C.-C., H.-C. Kuo, R. H. Johnson, C.-Y. Lee, S.-Y. Huang, and Y.-H. Chen, 2015: A numerical study of convection in rainbands of Typhoon Morakot (2009) with extreme rainfall: roles of pressure perturbations with low-level wind maxima. *Atmos. Chem. Phys.*, **15**, 11097–11115.
 54. Wang, C.-C., B.-K. Chiou, G. T.-J. Chen, H.-C. Kuo, C.-H. Liu, 2016: A numerical study of back-building process in a quasistationary rainband with extreme rainfall over northern Taiwan during 11–12 June 2012. *Atmos. Chem. Phys.*, **15**, 12359–12382.
 55. Fovell, R. G., Y. P. Bu, K. L. Corbosiero, W.-W. Tung, Y. Cao, H.-C. Kuo, L.-H. Hsu, and H. Su, 2016: Influence of cloud microphysics and radiation on tropical cyclone structure and motion. *Meteor. Mon.*, **56**, 11.1–11.27.
 56. Hendricks, E. A., Y. Jin, J.R. Moskaitis, J. D. Doyle, M. S. Peng, C.-C. Wu, and H.-C. Kuo, 2016: Numerical simulations of Typhoon Morakot (2009) using a multiply nested tropical cyclone prediction model. *Weather Forecast.*, **31**, 627–645.
 57. Yang, Y.-T., H.-C. Kuo, E. A. Hendricks, and M. S. Peng, 2016: Recent

- development in tropical cyclone dynamics, prediction, and detection. Chapter 8: Satellite Climatology of Tropical Cyclone with Concentric Eyewalls, A. R. Lupo, Ed., In. Tech. Open, Rijeka, Croatia, doi: 10.5772/64354. (Book Chapter)
58. Kuo, H.-C., W.-Y. Cheng, Y.-T. Yang, E. A. Hendricks, and M. S. Peng, 2016: Deep convection in elliptical and polygonal eyewalls of tropical cyclones. *J. Geo. Res.*, **121**, 14456–14468.
 59. Jou, B.-J., Y.-C. Kao, R.-G. Hsiu, C.-J. Jung, J.-R. Lee, and H.-C. Kuo, 2016: Observational characteristics and forecast challenge of Taipei flash flood afternoon thunderstorm: Case study of 14 June 2015, *Atmos. Sci.*, **44** (1), 57-82.
 60. Kuo, H.-C., C.-P. Chang, Y.-T. Yang, Y.-H. Chen, S.-H. Su, and L.-Y. Lin, 2017: Large increasing trend of tropical cyclone rainfall in Taiwan and the roles of terrain and southwest monsoon. *The Global Monsoon System: Research and Forecast*, 255–265. (Book Chapter)
 61. Chen, Y.-H., H.-C. Kuo, C.-C. Wang, and Y.-T. Yang, 2017: Influence of southwest monsoon flow and Typhoon track on Taiwan rainfall during exit phase: modeling study of Typhoon Morakot (2009). *Q. J. R. Meteorol. Soc.*, **143**, 3014-3024.
 62. Ong, H., C.-M. Wu, H.-C. Kuo, 2017: Effects of artificial local compensation of convective mass flux in the cumulus parameterization. *J. Adv. Model. Earth Syst.*, **9**(4), 1811-1827.
 63. Tsujino, S., K. Tsuboki, and H.-C. Kuo, 2017: Structure and maintenance mechanism of long-lived concentric eyewalls associated with simulated Typhoon Bolaven (2012). *J. Atmos. Sci.*, **74**, 3609-3634.
 64. Li, T., L. Wang, M. S. Peng, B. Wang, C. Zhang, W. Lau, and H.-C. Kuo, 2018: A Paper on the tropical intraseasonal oscillation published in 1963 in a Chinese journal. *Bull. Amer. Meteor. Soc.*, **99**, 1765–1779.
 65. Yu, H., Johnson, R. H. Johnson, P. E. Ciesielski, and H.-C. Kuo, 2018: Observation of quasi-2-day convective disturbances in the equatorial Indian Ocean during DYNAMO. *J. Atmos. Sci.*, **75**(9), 2867-2888.
 66. Hsu, L.-H., S.-H. Su, R. G. Fovell, and H.-C. Kuo, 2018: On Typhoon track deflections near the East Coast of Taiwan. *Mon. Wea. Rev.*, **146**, 1495-1510.
 67. Kuo, H.-C., S. Tsujino, C.-C. Wang, C.-C. Huang, and K. Tsuboki, 2019: Diagnosis of the dynamic efficiency of latent heat release and the rapid intensification of Supertyphoon Haiyan (2013). *Mon. Wea. Rev.*, **147**, 1127-1147.
 68. Tsujino, S. and H.-C. Kuo, 2020: Potential vorticity mixing and rapid intensification in numerically simulated Supertyphoon Haiyan (2013). *J. Atmos. Sci.*, **77**(6), 2067-2090.
 69. Huang, C.-Y., T.-C. Juan, H.-C. Kuo, and J.-H. Chen, 2020: Track deflection of Typhoon Maria (2018) during a westbound passage offshore of northern Taiwan: Topographic Influence. *Mon. Wea. Rev.*, **148**, 4519-4544.
 70. Wang, C. -C., Y.-H. Chen, M.-C. Li, H.-C. Kuo, K. Tsuboki, 2021: On the

- separation of upper and low-level centers of tropical storm Kong-Rey (2013) near Taiwan in association with asymmetric latent heating. *Q. J. R. Meteorol. Sci.*, **147**, 1135-1149.
71. Yo, T.-S., Su, S.-H., Chu, J.-L., Chang, C.-W., and H.-C. Kuo, 2021: A deep learning approach to radar-based QPE. *Earth and Space Science*, **8**(3), e2020EA001340.
 72. Tsujino, S., Horinouchi, T., Tsukada, T., H.-C. Kuo., Yamada, H., and Tsuboki, K., 2021: Inner-core wind field in a concentric eyewall replacement of Typhoon Trami (2018): A quantitative analysis based on the Himawari-8 satellite. *J. Geo. Res.: Atmospheres*, **126**, e2020JD034434. <https://doi.org/10.1029/2020JD034434>
 73. Yang, Y.-Y., H.-C. Kuo, S. Tsujino, B.-F. Chen, and M. S. Peng, 2021: Characteristics of the long-lived concentric eyewalls in tropical cyclones. *J. Geo. Res.: Atmospheres*, **126**, e2020JD033703. <https://doi.org/10.1029/2020JD033703>.
 74. Hsu, L.-H., S.-H. Su, and H.-C. Kuo, 2021: A numerical study of the sensitivity of typhoon track and convection structure to cloud microphysics. *J. Geo. Res.: Atmospheres*, **126**, e2020JD034390. <https://doi.org/10.1029/2020JD034390>.
 75. Tsujino, S., H.-C. Kuo, H. Yu, B.-F. Chen, and K. Tsuboki, 2021: Effects of mid-level moisture and environmental flow on the development of afternoon thunderstorms in Taipei. *Terr. Atmos. Ocean. Sci.*, **32**, 497-518.
 76. Tsujino S. and H.-C. Kuo, 2021: Reply to “Comment on ‘Potential Vorticity Mixing and Rapid Intensification in the numerically Simulated Supertyphoon Haiyan (2013)’”. *J. Atmos. Sci.*, **78**, 2649-2655.
 77. Yu, H., Rasmussen, K. L., and H.-C. Kuo. 2021: Quasi-2-day and diurnal cloud variation timescales over convectively active regions. *J. Geo. Res.* **126**,. <https://doi.org/10.1029/2021JD035426>.
 78. Kuo, H.-C., S. Tsujino, T.-Y. Hsu, M. S. Peng, and S.-H. Su, 2022: Scaling law for boundary layer inner eyewall pumping in concentric eyewalls. *J. Geo. Res.: Atmospheres*, **127**, e2021JD035518, <https://doi.org/10.1029/2021JD035518>.
 79. Huang, C.-Y., J.-Y Lin., H.-C. Kuo, D.-S. Chen, J.-S. Hong, L.-F. Hsiao, and S.-Y. Chen, 2022: A numerical study for Tropical Cyclone Atsani (2020) past offshore of southern Taiwan under topographic Influences. *Atmosphere*, **13**, 618. <https://doi.org/10.3390/atmos13040618>.
 80. Huang, C.-Y., S.-H. Sha, and H.-C. Kuo, 2022: A modeling study of Typhoon Lekima (2019) with topographic influence of Taiwan. *Mon. Wea. Rev.*, **150**, 1993-2011.
 81. Su, S.-H., Y.-H. Chang, C.-H. Liu, W.-T. Chen, W.-Y. Chang, J.-P. Chen, W.-N. Chen, K.-S. Chung, J.-P. Hou, M.-K. Hsieh, H.-C. Kuo, Y.-C. Lee, P.-L. Lin, P.-Y. Lin, P.-H. Lin, Y.-C. Liou, M.-H. Lo, S.-H. Wang, C.-M. Wu, J.-H. Yang, M.-J. Yang, 2022: Yilan experiment of severe rainfall in 2020 (YESR2020): the scientific strategy and the field campaign, *Q. J. R. Meteorol. Soc.*, **148**(745). <https://doi.org/10.1002/QJ.4271>.

82. Chen, J.-P., T.-C. Tsai, M.-D. Tzeng, C.-S. Liao, H.-C. Kuo, and J.-S. Hong, 2022: Microphysical perturbation experiments and ensemble forecasts on summertime heavy rainfall over Northern Taiwan, *Weather and Forecasting*, **37** (9), 1641-1659.
83. Pan, T.-Y., H.-M. Tsai, J.-S. Liu, C.-H. Chen, W.-S. Chang, Y.-H. Zheng, and H.-C. Kuo, 2022: New role of universities: experiences from Taiwan. Safety and Resilience of HEIs, 137-163, Springer Nature. (Book Chapter)
84. Huang, C.-Y., Chang, C.-H.; Kuo, H.-C., 2022: Exploring the Evolution of Typhoon Lekima (2019) Moving Offshore Northeast of Taiwan with a Multi-Resolution Global Model. *Atmosphere*, **13**, 1817.
<https://doi.org/10.3390/atmos13111817>.
85. Wang, C.-C., H.-C. Kuo, Y.-H. Chen, S.-H. Chen, and K. Tsuboki, 2022: A decade after Typhoon Morakot (2009): What have we learned about its physics and predictability? *Weather and forecasting*, **37**, 2161-2181.
86. Cheng, Y.-Y., C.-T. Chang, B.-F. Chen, H.-C. Kuo, and C.-S. Lee, 2023: Extracting 3-D radar features to improve quantitative precipitation estimation in complex terrain based on deep learning neural networks. *Weather and Forecasting*, **38**, 273-289.
87. Wang, C.-C., S.-H. Chen, Y.-H. Chen, H.-C. Kuo, J. H. Ruppert, Jr., K. Tsuboki, 2023: Cloud-Resolving Time-Lagged Rainfall Ensemble Forecasts for Typhoons in Taiwan: Examples of Saola (2012), Soulik (2013), and Soudelor (2015). *Weather Clim. Extrem.*, **40**, 100555. <https://doi.org/10.1016/j.wace.2023.100555>.
88. Yo, T.-S., Su, S.-H., Wu, C.-M., Chen, W.-T., Chu, J.-L., Chang, C.-W., & Kuo, H.-C. (2023). Learning Representations of Satellite Images with Evaluations on Synoptic Weather Events.
89. Chen, Y.-H., S.-H. Sha, C.-H. Lin, L.-F. Hsiao, C.-Y. Huang and H.-C. Kuo, 2024: Performance Evaluation of TGFS Typhoon Track Forecasts over the Western North Pacific with Sensitivity Tests on Cumulus Parameterization. *Atmosphere*, **15**(9), 1075.
90. Chan, W.-P., J. Lenoir, G.-S. Mai, H.-C. Kuo, I.-C. Chen, S.-F. Shen, 2024: Climate velocities and species tracking in global mountain regions. *Nature* (2024). <https://doi.org/10.1038/s41586-024-07264-9>
91. Cheng-Chin Liu, Hsu Kathryn, Melinda Peng, Der-Song Chen, Pao-Liang Chang, Ling-Feng Hsiao, Chin-Tzu Fong, Jing-Shan Hong, Chia-Ping Cheng, Kuo-Chen Lu, Chia-Rong Chen, and Hung-Chi Kuo, 2024: Evaluation of Five Global AI Models for Predicting Weather in Eastern Asia and Western Pacific., *npj Clim Atmos Sci* **7**, **221** (2024). <https://doi.org/10.1038/s41612-024-00769-0> [npj : Nature Partner Journals]
92. Miao, J.-E., M.-J. Yang, K. L. Rasmussen, M. M. Bell, H.-C. Kuo, and T.-Y. Cha, 2025: Microphysical and Kinematical Characteristics of Merged and Isolated

- Convective Cells over the Complex Terrain of the Taipei Basin. *Journal of Geophysical Research - Atmospheres*, *accepted*.**130**(15), e2024JD042375.
<https://doi.org/10.1029/2024JD042375>
93. Kuo, H.-C., Yo, T.-S., Yu, H., Su, S.-H., Liu, C.-H., & Lin, P.-H. (2025). Data Quality Control and Calibration for Mini-Radiosonde System “Storm Tracker” in Taiwan. *Journal of the Meteorological Society of Japan*, Ser. II, 103(5), 573-593.
<https://doi.org/10.2151/jmsj.2025-029>
 94. Nguyen, T., C. Huang, H. Kuo, and L. Kuo, 2025: Intensification of Supertyphoon Hagibis (2019) with Concentric Eyewall Formation as Explored by the Extended Sawyer-Eliassen Equation. *Mon. Wea. Rev.*, in press.
<https://doi.org/10.1175/MWR-D-24-0159.1>
 95. Chen B.-F., B. Chen, C.-M. Hsiao, H.-F. Teng, C.-S. Lee, H.-C. Kuo, 2025: Constructing Deep Learning Datasets to Reveal Climate Trends of Tropical Cyclone Intensity and Structure Extremes. *Artif. Intell. Earth Syst.*, in press.
<https://doi.org/10.1175/AIES-D-24-0064.1>
- Chen B.-F. C.-L. Chen, H.-C. Kuo, 2025: Long-lived Concentric Eyewalls and Tropical Cyclone Integrated Kinetic Energy, *Geophysical Research Letters*, 52, e2024GL114429. <https://doi.org/10.1029/2024GL114429>
96. Cheng Y.-Y., H.-H. Lo, B.-F. Chen, and H.-C. Kuo, 2025: Analyzing Tropical Cyclone Surface Wind Asymmetry with a Polar-Coordinate Periodic-Domain Deep Learning Model. *Mon. Wea. Rev.*, accepted with minor revision
 97. Miao, J.-E., M.-J. Yang, K. L. Rasmussen, M. M. Bell, H.-C. Kuo, and T.-Y. Cha, 2025: Microphysical and Kinematical Characteristics of Merged and Isolated Convective Cells over the Complex Terrain of the Taipei Basin. *Journal of Geophysical Research - Atmospheres*, in press.

中文著作

1. 郭鴻基、柳再明、周仲島，1990：平流傳輸方程的計算：交錯網格之有限差分法。大氣科學，18，159-169。
2. 郭鴻基、游志淇，1992：淺對流層積雲動力模擬。大氣科學，20，1-18。
3. 郭鴻基、柳再明，1994：正定義數值方法的基本測試。大氣科學，22，1-22。
4. 柳再明、郭鴻基，1994：Smolarkiewicz 正定義數值方法中的交錯項。大氣科學，22，277-296。
5. 陳建河、郭鴻基，1994：中央氣象局全球波譜模式之非線性正模初始化。氣象學報，40，185-198。
6. 柳再明、郭鴻基，1995：半拉格朗日法與正定義數值方法之比較。大氣科學，23，35-63。

7. 林禧閔、郭鴻基，1996：1994年南臺灣夏季午後對流之研究。大氣科學，24，249-280。
8. 郭鴻基、林宗賢、陳建河、吳佳純，1998：賀伯颱風眼轉動可能機制探討。大氣科學，26，49-264。
9. 林李耀、郭鴻基，1999：颱風線基本結構的數值模擬研究。大氣科學，27，319-340。
10. 林李耀、郭鴻基，2000：不同水氣垂直結構的颱風線模擬測試。大氣科學，28，143-160。
11. 郭鴻基、吳俊傑、李清勝，2001：天搖地動—颱風研究的挑戰。科學發展月刊，29，859-866。
12. 郭鴻基、林李耀、陳怡良，2004：近期颱風研究之回顧。大氣科學，32，205-224。
13. 郭鴻基、林李耀、陳珮雯，2009：全球暖化與不時風雨。科學月刊6月號，432-437。
14. 葉天降、郭鴻基、呂國臣、王世堅、陳怡良，2010：莫拉克颱風路徑與降雨作業預報校驗，大氣科學，38，85-98。
15. 郭鴻基、蘇世顥、徐理寰、尤虹歡、陳郁涵，2011/08：風雲變色-莫拉克颱風與氣候變遷。臺灣大學土木系杜風電子報，45期。
16. 郭鴻基、吳俊傑、李清勝、林博雄、蘇世顥、王重傑、游政谷、林李耀、簡國基、呂國臣，2012/08：防颱減災。財團法人氣象應用推廣基金會。總頁數135頁。
17. 郭鴻基、蘇世顥、徐理寰、楊憶婷、陳郁涵，2013/07：臺灣颱風雨不停。農業世界雜誌，359，42-46。
18. 郭鴻基、林李耀、蘇世顥，2014：氣候變遷與莫拉克颱風。第八屆的週日閱讀科學大師演講專書第10章)，205-235。
19. 郭鴻基，2015：Wavenumber-2 Deep Convection in the Tropical Cyclone。第二十二屆全國計算流體力學研討會。
20. 周仲島、高聿正、修榮光、鍾吉俊、李宗融、郭鴻基，2016：臺北都會區豪雨型午後雷暴的觀測特徵與預報挑戰：2015年6月14日個案研究用。大氣科學，44(1)，57-82。
21. 蘇世顥、陳郁涵、楊憶婷、徐理寰、郭鴻基，2017：氣候變遷下台灣颱風豪雨之變化與機制探討。大氣科學，45，305-311。(黃廈千論文獎)
22. 陳郁涵、蕭玲鳳、陳政友、陳建河、郭鴻基，2021：中央氣象局下一代全球預報系統(FV3GFS)巢狀網格之次網格地形重力波拖曳參數法山脈阻塞效應調整與測試研究。氣象學報，56(1)，41-54。
23. 張沁全、鍾高陞、莊秉學、張偉裕、蔡直謙、郭鴻基，2024：同化雙偏極化雷達差異反射率之新方法：2021年宜蘭降雨觀測實驗 IOP2個案分析，大氣科學，52期，99-135。