Haonan Chen Publication List - Last updated on 1 March 2020

Peer-reviewed Journal Articles (denotes corresponding author)*

[J38] **Chen, H.***, V. Chandrasekar, R. Cifelli, P. Xie, 2020: A machine learning system for precipitation estimation using satellite and ground radar network observations. *IEEE Transactions on Geoscience and Remote Sensing*, **58(2)**, 982-994.

[J37] **Chen, H.***, R. Cifelli, and A. White, 2020: Improving operational radar rainfall estimates using profiler observations over complex terrain in Northern California. *IEEE Transactions on Geoscience and Remote Sensing*, **58(3)**, 1821-1832.

[J36] Gou, Y., **H. Chen***, and V. Chandrasekar, 2020: A dynamic approach to quantitative precipitation estimation using multi-radar multi-gauge network. *IEEE Transactions on Geoscience and Remote Sensing*, doi: 10.1109/TGRS.2020.2976724 (in press)

[J35] Sun, Y., H. Xiao*, H. Yang, L. Feng, **H. Chen**, and L. Luo, 2020: An inverse mapping table method for raindrop size distribution parameters retrieval using X-band dual-polarization radar observations. *IEEE Transactions on Geoscience and Remote Sensing*, (in press)

[J34] Luo, L., H. Xiao*, H. Yang, **H. Chen**, J. Guo, Y. Sun, and L. Feng, 2020: Raindrop size distribution and microphysical characteristics of a great rainstorm in 2016 in Beijing, China. *Atmospheric Research*, **239**, 104895.

[J33] Shao, S., K. Zhao*, **H. Chen**, J. Chen, H. Huang, 2020: Validation of a multilag estimator on NJU-CPOL and a hybrid approach for improving polarimetric radar data quality. *Remote Sens.*, **12**, 180.

[J32] Ma, Y.*, M. Lu, C. Bracken, and **H. Chen**, 2020: Spatially coherent clusters of summer precipitation extremes in the Tibetan Plateau: Where is the moisture from? *Atmospheric Research*, **237**, 104841.

[J31] **Chen, H.***, V. Chandrasekar, H. Tan, and R. Cifelli, 2019: Rainfall estimation from ground radar and TRMM precipitation radar using hybrid deep neural networks. *Geophysical Research Letter*, **46**, 10669-10678. (**Editors' Highlights**)

[J30] **Chen, H.***, R. Cifelli, V. Chandrasekar, and Y. Ma, 2019: A flexible Bayesian approach to bias correction of radar-derived precipitation estimates over complex terrain: Model design and initial verification. *Journal of Hydrometeorology*, **20**, 2367–2382.

[J29] Gou, Y., **H. Chen***, and J. Zheng, 2019: An improved self-consistent approach to attenuation correction for C-band polarimetric radar measurements and its impact on quantitative precipitation estimation. *Atmospheric Research*, **226**, 32-48.

[J28] He, J., and **H. Chen***, 2019: Atmospheric retrievals and assessment for microwave observations from Chinese FY-3C satellite during Hurricane Matthew. *Remote Sensing*, **11**, 896.

[J27] Li, Z., **H. Chen***, H. Chu, V. Chandrasekar, H. Chen, H. Lei, L. Yu, 2019: Monitoring wildfire using high-resolution compact X-band dual-polarization radar: A case study in southern China. *Atmospheric Research*, **225**, 165-171.

[J26] Gou, Y., **H. Chen**, J. Zheng*, 2019: Polarimetric radar signatures and performance of various radar rainfall estimators during an extreme precipitation event over the thousand-island lake area in eastern China. *Remote Sensing*, 11, 2335.

[J25] Ji, L., **H. Chen***, L. Li, B. Chen, X. Xiao, M. Chen, and G. Zhang, 2019: Raindrop size distributions and rain characteristics observed by a PARSIVEL disdrometer in Beijing, Northern China. *Remote Sensing*, **11**, 1479.

[J24] Gou, Y., Y. Ma, **H. Chen***, and J. Yin, 2019: Utilization of a C-band polarimetric radar for severe rainfall event analysis in complex terrain over eastern China. *Remote Sensing*, **11**, 22.

[J23] Zheng, J.*, L. Liu, **H. Chen**, Y. Gou, Y. Che, H. Xu, Q. Li, 2019: Characteristics of warm clouds and precipitation in south China during the pre-flood season using datasets from a cloud radar, a ceilometer, and a disdrometer. *Remote Sensing*, **11**, 3045.

[J22] Ma, Y., G. Ni, V. Chandrasekar, F. Tian, and **H. Chen***, 2019: Statistical characteristics of raindrop size distribution during rainy seasons in the Beijing urban area and implications for radar rainfall estimation, *Hydrol. Earth Syst. Sci.*, **23**, 4153–4170.

[J21] Min, C., S. Chen*, J. J. Gourley, **H. Chen**, A. Zhang, Y. Huang, and C. Huang, 2019: Coverage of China new generation weather radar network. *Advances in Meteorology*, **5789358**, 1-10.

[J20] Yang, J., K. Zhao*, G. Zhang, G. Chen, H. Huang, and **H. Chen**, 2019: A Bayesian hydrometeor classification algorithm for C-band polarimetric radar. *Remote Sensing*, **11**, 1884.

[J19] Derin, Y., E. Anagnostou*, A. Berne, M. Borga, B. Boudevillain, W. Buytaert, C.-H. Chang, **H. Chen**, G. Delrieu, Y. Hsu, and Coauthors, 2019: Evaluation of GPM-era global satellite precipitation products over multiple complex terrain regions. *Remote Sensing*, **11**, 2936.

[J18] Barcaroli, E.*, A. Lupidi, L. Facheris, **H. Chen**, and V. Chandrasekar, 2019: A validation procedure for a polarimetric weather radar signal simulator. *IEEE Transactions on Geoscience and Remote Sensing*, **57(1)**, 609-622.

[J17] Chandrasekar, V., **H. Chen***, and B. J. Philips, 2018: Principles of high-resolution radar network for hazard mitigation and disaster management in an urban environment. *J. Meteor. Soc. Japan*, **96A**, 119-139.

[J16] **Chen, H.***, and V. Chandrasekar, 2018: Real-time wind velocity retrieval in the precipitation system using high-resolution operational multi-radar network. *Remote Sensing of Aerosols, Clouds, and Precipitation*, Elsevier, 315-339.

[J15] Shi, Z., **H. Chen**, V. Chandrasekar, and J. He*, 2018: Deployment and performance of an X-band dual-polarization radar during the Southern China Monsoon Rainfall Experiment, *Atmosphere*, **9(1)**, 4.

[J14] Wen, G.*, **H. Chen**, G. Zhang, and J. Sun, 2018: An inverse model for raindrop size distribution retrieval with polarimetric variables. *Remote Sensing*, **10**, 1179.

[J13] Gou, Y., Y. Ma, **H. Chen***, Y. Wen, 2018: Radar-derived quantitative precipitation estimation in complex terrain over the eastern Tibetan plateau. *Atmospheric Research*, **203**, 286-297.

[J12] Ma, Y.*, M. Lu, **H. Chen**, M. Pan, and Y. Hong, 2018: Atmospheric moisture transport versus precipitation across the Tibetan plateau: A mini-review and current challenges. *Atmospheric Research*, **209**, 50-58.

[J11] Cifelli, R., V. Chandrasekar, **H. Chen***, and L. E. Johnson, 2018: High resolution radar quantitative precipitation estimation in the San Francisco Bay Area: Rainfall monitoring for the urban environment. *J. Meteor. Soc. Japan*, **96A**, 141-155.

[J10] Wen, Y.*, A. Behrangi, **H. Chen**, B. Lambrigtsen, 2018: How well were the early 2017 California Atmospheric River precipitation events captured by satellite products and ground-based radars?. *Q J R Meteorol Soc.*, **144(S1)**, 344-359.

[J9] **Chen, H.***, V. Chandrasekar, and R. Bechini, 2017: An improved dual-polarization radar rainfall algorithm (DROPS2.0): Application in NASA IFloodS Field Campaign. *Journal of Hydrometeorology*, **18**, 917-937.

[J8] **Chen, H.***, S. Lim, V. Chandrasekar, B.-J. Jang, 2017: Urban hydrological applications of dual-polarization X-band radar: Case study in Korea. *Journal of Hydrologic Engineering*, **22(5)**, E5016001.

[J7] Willie, D.*, **H. Chen**, V. Chandrasekar, R. Cifelli, and Coauthors, 2017: Evaluation of multisensor quantitative precipitation estimation in Russian river basin. *Journal of Hydrologic Engineering,* **22(5)**, E5016002.

[J6] Yao, Q., P. M. Brown, S. Liu, M. Rocca, V. Trouet, B. Zheng, **H. Chen**, Y. Li, and et al.*, 2017: Pacific-Atlantic Ocean influence on wildfires in northeast China (1774 to 2010). *Geophysical Research Letters*, **44(2)**, 1944-8007.

[J5] Shimamura, S.*, V. Chandrasekar, T. Ushio, G. Kim, E. Yoshikawa, and **H. Chen**, 2016: Probabilistic attenuation correction in a networked radar environment. *IEEE Transactions on Geoscience and Remote Sensing*, **54(12)**, 6930-6939.

[J4] **Chen, H.*** and V. Chandrasekar, 2015: The quantitative precipitation estimation system for Dallas-Fort Worth (DFW) urban remote sensing network. *Journal of Hydrology.* **531(2)**, 259-271.

[J3] **Chen, H.*** and V. Chandrasekar, 2015: Estimation of light rainfall using Ku-band dual-polarization radar. *IEEE Transactions on Geoscience and Remote Sensing*, **53(9),** 5197-5208.

[J2] Beauchamp, R.M., V. Chandrasekar*, **H. Chen**, and Manuel Vega, 2015: Overview of the D3R observations during the IFloodS Field Experiment with emphasis on rainfall mapping and microphysics. *Journal of Hydrometeorology*, **16**, 2118-2132.

[J1] Chandrasekar, V.*, Y. Wang and **H. Chen**, 2012: The CASA quantitative precipitation estimation system-a 5-yr validation study. *Natural Hazards and Earth System Sciences*, **12**, 2811-2820.