Guoqiang Tang

List of Publications by Year
in descending order

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72 papers	3,241 citations	147801 31 h-index	149698 56 g-index
81 all docs	81 docs citations	81 times ranked	2243 citing authors

#	Article	IF	Citations
1	Evaluation of GPM Day-1 IMERG and TMPA Version-7 legacy products over Mainland China at multiple spatiotemporal scales. Journal of Hydrology, 2016, 533, 152-167.	5.4	425
2	Have satellite precipitation products improved over last two decades? A comprehensive comparison of GPM IMERG with nine satellite and reanalysis datasets. Remote Sensing of Environment, 2020, 240, 111697.	11.0	330
3	Statistical and Hydrological Comparisons between TRMM and GPM Level-3 Products over a Midlatitude Basin: Is Day-1 IMERG a Good Successor for TMPA 3B42V7?. Journal of Hydrometeorology, 2016, 17, 121-137.	1.9	206
4	Similarity and Error Intercomparison of the GPM and Its Predecessor-TRMM Multisatellite Precipitation Analysis Using the Best Available Hourly Gauge Network over the Tibetan Plateau. Remote Sensing, 2016, 8, 569.	4.0	129
5	Accounting for spatiotemporal errors of gauges: A critical step to evaluate gridded precipitation products. Journal of Hydrology, 2018, 559, 294-306.	5.4	112
6	Performance of Optimally Merged Multisatellite Precipitation Products Using the Dynamic Bayesian Model Averaging Scheme Over the Tibetan Plateau. Journal of Geophysical Research D: Atmospheres, 2018, 123, 814-834.	3.3	111
7	Cross-evaluation of ground-based, multi-satellite and reanalysis precipitation products: Applicability of the Triple Collocation method across Mainland China. Journal of Hydrology, 2018, 562, 71-83.	5.4	105
8	Statistical assessment and hydrological utility of the latest multi-satellite precipitation analysis IMERG in Ganjiang River basin. Atmospheric Research, 2017, 183, 212-223.	4.1	88
9	Multiscale Comparative Evaluation of the GPM IMERG v5 and TRMM 3B42 v7 Precipitation Products from 2015 to 2017 over a Climate Transition Area of China. Remote Sensing, 2018, 10, 944.	4.0	84
10	Assessing the potential of satellite-based precipitation estimates for flood frequency analysis in ungauged or poorly gauged tributaries of Chinaâ€™s Yangtze River basin. Journal of Hydrology, 2017, 550, 478-496.	5.4	79
11	The Abuse of Popular Performance Metrics in Hydrologic Modeling. Water Resources Research, 2021, 57, e2020WR029001.	4.2	76
12	Global intercomparison and regional evaluation of GPM IMERG Version-03, Version-04 and its latest Version-05 precipitation products: Similarity, difference and improvements. Journal of Hydrology, 2018, 564, 342-356.	5.4	75
13	AIMERG: a new Asian precipitation dataset (0.1Â°/half-hourly, 2000â€“2015) by calibrating the GPM-era IMERG at a daily scale using APHRODITE. Earth System Science Data, 2020, 12, 1525-1544.	9.9	75
14	Comprehensive evaluation of Ensemble Multi-Satellite Precipitation Dataset using the Dynamic Bayesian Model Averaging scheme over the Tibetan plateau. Journal of Hydrology, 2018, 556, 634-644.	5.4	71
15	Documentation of multifactorial relationships between precipitation and topography of the Tibetan Plateau using spaceborne precipitation radars. Remote Sensing of Environment, 2018, 208, 82-96.	11.0	68
16	A cloud-based global flood disaster community cyber-infrastructure: Development and demonstration. Environmental Modelling and Software, 2014, 58, 86-94.	4.5	64
17	Exploring Deep Neural Networks to Retrieve Rain and Snow in High Latitudes Using Multisensor and Reanalysis Data. Water Resources Research, 2018, 54, 8253-8278.	4.2	59
18	Correcting GPM IMERG precipitation data over the Tianshan Mountains in China. Journal of Hydrology, 2019, 575, 1239-1252.	5.4	58

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19	Development of an NRCS curve number global dataset using the latest geospatial remote sensing data for worldwide hydrologic applications. Remote Sensing Letters, 2017, 8, 528-536.	1.4	45
20	Evaluation and correction of the TRMM 3B43V7 and GPM 3IMERGM satellite precipitation products by use of ground-based data over Xinjiang, China. Environmental Earth Sciences, 2018, 77, 1.	2.7	44
21	Evaluation of High-Resolution Precipitation Estimates from Satellites during July 2012 Beijing Flood Event Using Dense Rain Gauge Observations. PLoS ONE, 2014, 9, e89681.	2.5	43
22	Similarities and differences between three coexisting spaceborne radars in global rainfall and snowfall estimation. Water Resources Research, 2017, 53, 3835-3853.	4.2	42
23	Hydrometeorological Analysis and Remote Sensing of Extremes: Was the July 2012 Beijing Flood Event Detectable and Predictable by Global Satellite Observing and Global Weather Modeling Systems?. Journal of Hydrometeorology, 2015, 16, 381-395.	1.9	40
24	Quantitative Evaluations and Error Source Analysis of Fengyun-2-Based and GPM-Based Precipitation Products over Mainland China in Summer, 2018. Remote Sensing, 2019, 11, 2992.	4.0	40
25	Application of the GPM-IMERG Products in Flash Flood Warning: A Case Study in Yunnan, China. Remote Sensing, 2020, 12, 1954.	4.0	39
26	Precipitation Merging Based on the Triple Collocation Method Across Mainland China. IEEE Transactions on Geoscience and Remote Sensing, 2021, 59, 3161-3176.	6.3	39
27	Similarities and Improvements of GPM Dual-Frequency Precipitation Radar (DPR) upon TRMM Precipitation Radar (PR) in Global Precipitation Rate Estimation, Type Classification and Vertical Profiling. Remote Sensing, 2017, 9, 1142.	4.0	37
28	Systematic Anomalies Over Inland Water Bodies of High Mountain Asia in TRMM Precipitation Estimates: No Longer a Problem for the GPM Era?. IEEE Geoscience and Remote Sensing Letters, 2016, 13, 1762-1766.	3.1	36
29	Can Near-Real-Time Satellite Precipitation Products Capture Rainstorms and Guide Flood Warning for the 2016 Summer in South China?. IEEE Geoscience and Remote Sensing Letters, 2017, 14, 1208-1212.	3.1	35
30	SCDNA: a serially complete precipitation and temperature dataset for North America from 1979 to 2018. Earth System Science Data, 2020, 12, 2381-2409.	9.9	35
31	Cross-Examination of Similarity, Difference and Deficiency of Gauge, Radar and Satellite Precipitation Measuring Uncertainties for Extreme Events Using Conventional Metrics and Multiplicative Triple Collocation. Remote Sensing, 2020, 12, 1258.	4.0	33
32	Infrared Precipitation Estimation Using Convolutional Neural Network. IEEE Transactions on Geoscience and Remote Sensing, 2020, 58, 8612-8625.	6.3	33
33	Assessment of Extremes in Global Precipitation Products: How Reliable Are They?. Journal of Hydrometeorology, 2020, 21, 2855-2873.	1.9	28
34	Global water cycle and remote sensing big data: overview, challenge, and opportunities. Big Earth Data, 2018, 2, 282-297.	4.4	25
35	Evaluation of multi-satellite precipitation products in Xinjiang, China. International Journal of Remote Sensing, 2018, 39, 7437-7462.	2.9	25
36	The Development of a Two-Step Merging and Downscaling Method for Satellite Precipitation Products
. Remote Sensing, 2020, 12, 398.	4.0	24

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37	Downscaling Satellite and Reanalysis Precipitation Products Using Attention-Based Deep Convolutional Neural Nets. Frontiers in Water, 2020, 2, .	2.3	23
38	Evaluation of GPM IMERG and its constellations in extreme events over the conterminous united states. Journal of Hydrology, 2022, 606, 127357.	5.4	23
39	A cascading flash flood guidance system: development and application in Yunnan Province, China. Natural Hazards, 2016, 84, 2071-2093.	3.4	22
40	Two-decades of GPM IMERG early and final run products intercomparison: Similarity and difference in climatology, rates, and extremes. Journal of Hydrology, 2021, 594, 125975.	5.4	22
41	The potential and uncertainty of triple collocation in assessing satellite precipitation products in Central Asia. Atmospheric Research, 2021, 252, 105452.	4.1	22
42	EMDNA: an Ensemble Meteorological Dataset for North America. Earth System Science Data, 2021, 13, 3337-3362.	9.9	22
43	General overestimation of ERA5 precipitation in flow simulations for High Mountain Asia basins. Environmental Research Communications, 2021, 3, 121003.	2.3	21
44	Can Satellite Precipitation Products Estimate Probable Maximum Precipitation: A Comparative Investigation with Gauge Data in the Dadu River Basin. Remote Sensing, 2018, 10, 41.	4.0	20
45	An Improved Coupled Routing and Excess Storage (CREST) Distributed Hydrological Model and Its Verification in Ganjiang River Basin, China. Water (Switzerland), 2017, 9, 904.	2.7	19
46	SC-Earth: A Station-Based Serially Complete Earth Dataset from 1950 to 2019. Journal of Climate, 2021, 34, 6493-6511.	3.2	19
47	Evaluation of IMERG and ERA5 Precipitation-Phase Partitioning on the Global Scale. Water (Switzerland), 2022, 14, 1122.	2.7	16
48	Infrared precipitation estimation using convolutional neural network for FengYun satellites. Journal of Hydrology, 2021, 603, 127113.	5.4	15
49	Generation of an improved precipitation data set from multisource information over the Tibetan Plateau. Journal of Hydrometeorology, 2021, , .	1.9	14
50	Spatial Variability and Linkage Between Extreme Convections and Extreme Precipitation Revealed by 22â€¥ear Spaceâ€Borne Precipitation Radar Data. Geophysical Research Letters, 2020, 47, e2020GL088437.	4.0	13
51	PrecipGAN: Merging Microwave and Infrared Data for Satellite Precipitation Estimation Using Generative Adversarial Network. Geophysical Research Letters, 2021, 48, e2020GL092032.	4.0	13
52	Downscaling of ERA-Interim Temperature in the Contiguous United States and Its Implications for Rainâ€“Snow Partitioning. Journal of Hydrometeorology, 2018, 19, 1215-1233.	1.9	11
53	Characterization of the Systematic and Random Errors in Satellite Precipitation Using the Multiplicative Error Model. IEEE Transactions on Geoscience and Remote Sensing, 2021, 59, 5407-5416.	6.3	9
54	Evaluating applicability of multi-source precipitation datasets for runoff simulation of small watersheds: a case study in the United States. European Journal of Remote Sensing, 2021, 54, 372-382.	3.5	7

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55	Can GPM IMERG Capture Extreme Precipitation in North China Plain?. Remote Sensing, 2022, 14, 928.	4.0	7
56	Quantitative estimation of hourly precipitation in the Tianshan Mountains based on area-to-point kriging downscaling and satellite-gauge data merging. Journal of Mountain Science, 2022, 19, 58-72.	2.0	7
57	Detailed investigation of discrepancies in KÃ¶ppen-Geiger climate classification using seven global gridded products. Journal of Hydrology, 2022, 612, 128121.	5.4	7
58	Climate Changes and Their Teleconnections With ENSO Over the Last 55 Years, 1961â€“2015, in Floodsâ€Dominated Basin, Jiangxi Province, China. Earth and Space Science, 2020, 7, e2019EA001047.	2.6	6
59	The use of serially complete station data to improve the temporal continuity of gridded precipitation and temperature estimates. Journal of Hydrometeorology, 2021, , .	1.9	6
60	Remote Sensing Precipitation: Sensors, Retrievals, Validations, and Applications. Ecohydrology, 2018, , 1-23.	0.2	5
61	Remote Sensing Precipitation: Sensors, Retrievals, Validations, and Applications. Ecohydrology, 2019, , 107-128.	0.2	5
62	Development of a new rainfallâ€triggering index of flash flood warningâ€case study in Yunnan province, China. Journal of Flood Risk Management, 2021, 14, e12676.	3.3	5
63	A Morphology-Based Adaptively Spatio-Temporal Merging Algorithm for Optimally Combining Multisource Gridded Precipitation Products With Various Resolutions. IEEE Transactions on Geoscience and Remote Sensing, 2022, 60, 1-21.	6.3	5
64	First Assessment of CyGNSS-Incorporated SMAP Sea Surface Salinity Retrieval Over Pan-Tropical Ocean. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2021, 14, 12163-12173.	4.9	5
65	Combined Space and Ground Radars for Improving Quantitative Precipitation Estimations in the Eastern Downstream Region of the Tibetan Plateau. Part I: Variability in the Vertical Structure of Precipitation in ChuanYu Analyzed from Long-Term Spaceborne Observations by TRMM PR. Journal of Applied Meteorology and Climatology, 2017, 56, 2259-2274.	1.5	4
66	Error analysis of ensemble multi-satellite precipitation datasets over the Tibetan Plateau. , 2017, , .		1
67	An overview and outlook of global water remote sensing technology and applications. Zhongguo Kexue Jishu Kexue/Scientia Sinica Technologica, 2015, 45, 1013-1023.	0.5	1
68	Cross-Evaluation of Soil Moisture Based on the Triple Collocation Method and a Preliminary Application of Quality Control for Station Observations in China. Water (Switzerland), 2022, 14, 1054.	2.7	1
69	Cloud-Based Cyber-Infrastructure for Disaster Monitoring and Mitigation. , 2016, , 363-379.		0
70	From Tropical to Global Precipitation Measurement. , 2016, , 1-15.		0
71	Runoff simulation performance of multi-source precipitation products in small watersheds of different climatic regions in the USA. International Journal of Environment and Pollution, 2020, 67, 223.	0.2	0
72	Runoff simulation performance of multi-source precipitation products in small watersheds of different climatic regions in the USA. International Journal of Environment and Pollution, 2020, 67, 223.	0.2	0