Chiyuan Miao

List of Publications by Year
in descending order

130 papers	9,730 citations	36203 51 h-index	39575 94 g-index
132 all docs	132 docs citations	132 times ranked	8687 citing authors

#	Article	IF	Citations
1	A Review of Global Precipitation Data Sets: Data Sources, Estimation, and Intercomparisons. Reviews of Geophysics, 2018, 56, 79-107.	9.0	1,129
2	Hydrogeomorphic Ecosystem Responses to Natural and Anthropogenic Changes in the Loess Plateau of China. Annual Review of Earth and Planetary Sciences, 2017, 45, 223-243.	4.6	607
3	A China data set of soil properties for land surface modeling. Journal of Advances in Modeling Earth Systems, 2013, 5, 212-224.	1.3	375
4	Global rainfall erosivity assessment based on high-temporal resolution rainfall records. Scientific Reports, 2017, 7, 4175.	1.6	348
5	A preliminary estimate of human and natural contributions to the changes in water discharge and sediment load in the Yellow River. Global and Planetary Change, 2011, 76, 196-205.	1.6	284
6	Soil erosion modelling: A global review and statistical analysis. Science of the Total Environment, 2021, 780, 146494.	3.9	261
7	A comprehensive evaluation of various sensitivity analysis methods: A case study with a hydrological model. Environmental Modelling and Software, 2014, 51, 269-285.	1.9	242
8	Evolution of the Yellow River Delta and its relationship with runoff and sediment load from 1983 to 2011. Journal of Hydrology, 2015, 520, 157-167.	2.3	231
9	Evaluation of the PERSIANN-CDR Daily Rainfall Estimates in Capturing the Behavior of Extreme Precipitation Events over China. Journal of Hydrometeorology, 2015, 16, 1387-1396.	0.7	218
10	Global heat stress on health, wildfires, and agricultural crops under different levels of climate warming. Environment International, 2019, 128, 125-136.	4.8	202
11	An evaluation of adaptive surrogate modeling based optimization with two benchmark problems. Environmental Modelling and Software, 2014, 60, 167-179.	1.9	180
12	Assessment of CMIP5 climate models and projected temperature changes over Northern Eurasia. Environmental Research Letters, 2014, 9, 055007.	2.2	167
13	Detecting the quantitative hydrological response to changes in climate and human activities. Science of the Total Environment, 2017, 586, 328-337.	3.9	163
14	Contribution analysis of the long-term changes in seasonal runoff on the Loess Plateau, China, using eight Budyko-based methods. Journal of Hydrology, 2017, 545, 263-275.	2.3	145
15	Improvement of phytoextraction and antioxidative defense in Solanum nigrum L. under cadmium stress by application of cadmium-resistant strain and citric acid. Journal of Hazardous Materials, 2010, 181, 771-777.	6.5	135
16	Impact assessment of climate change and human activities on net runoff in the Yellow River Basin from 1951 to 2012. Ecological Engineering, 2016, 91, 566-573.	1.6	127
17	A review on statistical postprocessing methods for hydrometeorological ensemble forecasting. Wiley Interdisciplinary Reviews: Water, 2017, 4, e1246.	2.8	121
18	Functional degradation of the waterâ€“sediment regulation scheme in the lower Yellow River: Spatial and temporal analyses. Science of the Total Environment, 2016, 551-552, 16-22.	3.9	115

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19	The vegetation cover dynamics (1982â€"2006) in different erosion regions of the Yellow River Basin, China. Land Degradation and Development, 2012, 23, 62-71.	1.8	107
20	Sensitivity Analysisâ€Based Automatic Parameter Calibration of the VIC Model for Streamflow Simulations Over China. Water Resources Research, 2020, 56, e2019WR025968.	1.7	106
21	Projected changes in temperature and precipitation in ten river basins over China in 21st century. International Journal of Climatology, 2015, 35, 1125-1141.	1.5	101
22	A nonstationary biasâ€correction technique to remove bias in GCM simulations. Journal of Geophysical Research D: Atmospheres, 2016, 121, 5718-5735.	1.2	101
23	Temperature and precipitation changes over the Loess Plateau between 1961 and 2011, based on high-density gauge observations. Global and Planetary Change, 2015, 132, 1-10.	1.6	100
24	Comparative analysis of CMIP3 and CMIP5 global climate models for simulating the daily mean, maximum, and minimum temperatures and daily precipitation over China. Journal of Geophysical Research D: Atmospheres, 2015, 120, 4806-4824.	1.2	97
25	How well do CMIP5 climate simulations replicate historical trends and patterns of meteorological droughts?. Water Resources Research, 2015, 51, 2847-2864.	1.7	94
26	The Performance of CMIP6 Versus CMIP5 in Simulating Temperature Extremes Over the Global Land Surface. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2020JD033031.	1.2	90
27	Joint analysis of changes in temperature and precipitation on the Loess Plateau during the period 1961â€"2011. Climate Dynamics, 2016, 47, 3221-3234.	1.7	86
28	Meteorological and Hydrological Drought on the Loess Plateau, China: Evolutionary Characteristics, Impact, and Propagation. Journal of Geophysical Research D: Atmospheres, 2018, 123, 11,569.	1.2	85
29	Human activities aggravate nitrogen-deposition pollution to inland water over China. National Science Review, 2020, 7, 430-440.	4.6	80
30	Time lag of vegetation growth on the Loess Plateau in response to climate factors: Estimation, distribution, and influence. Science of the Total Environment, 2020, 744, 140726.	3.9	80
31	Soil erosion modelling: A bibliometric analysis. Environmental Research, 2021, 197, 111087.	3.7	78
32	Non-uniform changes in different categories of precipitation intensity across China and the associated large-scale circulations. Environmental Research Letters, 2019, 14, 025004.	2.2	76
33	Environmental impact assessments of the Xiaolangdi Reservoir on the most hyperconcentrated laden river, Yellow River, China. Environmental Science and Pollution Research, 2017, 24, 4337-4351.	2.7	75
34	Multipleâ€Wavelet Coherence of World's Large Rivers With Meteorological Factors and Ocean Signals. Journal of Geophysical Research D: Atmospheres, 2019, 124, 4932-4954.	1.2	75
35	Temporal and spatial variations in water discharge and sediment load on the Loess Plateau, China: A high-density study. Science of the Total Environment, 2019, 666, 875-886.	3.9	71
36	Assessing parameter importance of the Common Land Model based on qualitative and quantitative sensitivity analysis. Hydrology and Earth System Sciences, 2013, 17, 3279-3293.	1.9	69

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37	Extreme climate events and agricultural climate indices in China: CMIP5 model evaluation and projections. International Journal of Climatology, 2016, 36, 43-61.	1.5	66
38	Spatiotemporal variations in vegetation cover on the Loess Plateau, China, between 1982 and 2013: possible causes and potential impacts. Environmental Science and Pollution Research, 2018, 25, 13633-13644.	2.7	66
39	Centuryâ€scale causal relationships between global dry/wet conditions and the state of the Pacific and Atlantic Oceans. Geophysical Research Letters, 2016, 43, 6528-6537.	1.5	65
40	Streamflow changes and its influencing factors in the mainstream of the Songhua River basin, Northeast China over the past 50Âyears. Environmental Earth Sciences, 2011, 63, 489-499.	1.3	64
41	Would the â€˜realâ€™ observed dataset stand up? A critical examination of eight observed gridded climate datasets for China. Environmental Research Letters, 2014, 9, 015001.	2.2	63
42	Multiobjective adaptive surrogate modelingâ€based optimization for parameter estimation of large, complex geophysical models. Water Resources Research, 2016, 52, 1984-2008.	1.7	63
43	Detecting hotspots of interactions between vegetation greenness and terrestrial water storage using satellite observations. Remote Sensing of Environment, 2019, 231, 111259.	4.6	61
44	Multi-objective parameter optimization of common land model using adaptive surrogate modeling. Hydrology and Earth System Sciences, 2015, 19, 2409-2425.	1.9	60
45	Linkage Between Hourly Precipitation Events and Atmospheric Temperature Changes over China during the Warm Season. Scientific Reports, 2016, 6, 22543.	1.6	59
46	Assessing WRF model parameter sensitivity: A case study with 5 day summer precipitation forecasting in the Greater Beijing Area. Geophysical Research Letters, 2015, 42, 579-587.	1.5	58
47	Long-term trends in global river flow and the causal relationships between river flow and ocean signals. Journal of Hydrology, 2018, 563, 818-833.	2.3	58
48	Evaluating the skill of NMME seasonal precipitation ensemble predictions for 17 hydroclimatic regions in continental China. International Journal of Climatology, 2016, 36, 132-144.	1.5	56
49	Coupled effects of biogeochemical and hydrological processes on C, N, and P export during extreme rainfall events in a purple soil watershed in southwestern China. Journal of Hydrology, 2014, 511, 692-702.	2.3	55
50	Effects of vegetation cover on phosphorus loss from a hillslope cropland of purple soil under simulated rainfall: a case study in China. Nutrient Cycling in Agroecosystems, 2009, 85, 263-273.	1.1	54
51	Unraveling anthropogenic influence on the changing risk of heat waves in China. Geophysical Research Letters, 2017, 44, 5078-5085.	1.5	53
52	Changes in the Spatial Heterogeneity and Annual Distribution of Observed Precipitation across China. Journal of Climate, 2017, 30, 9399-9416.	1.2	52
53	Spatiotemporal Changes in Extreme Temperature and Precipitation Events in the Threeâ€Rivers Headwater Region, China. Journal of Geophysical Research D: Atmospheres, 2018, 123, 5827-5844.	1.2	52
54	CNRD v1.0: A High-Quality Natural Runoff Dataset for Hydrological and Climate Studies in China. Bulletin of the American Meteorological Society, 2021, 102, E929-E947.	1.7	52

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55	High-quality reconstruction of Chinaâ€™s natural streamflow. Science Bulletin, 2022, 67, 547-556.	4.3	52
56	The hydro-environmental response on the lower Yellow River to the waterâ€“sediment regulation scheme. Ecological Engineering, 2015, 79, 69-79.	1.6	51
57	Evapotranspiration and its dominant controls along an elevation gradient in the Qinghai Lake watershed, northeast Qinghai-Tibet Plateau. Journal of Hydrology, 2019, 575, 257-268.	2.3	51
58	Development of reservoir operation functions in SWAT+ for national environmental assessments. Journal of Hydrology, 2020, 583, 124556.	2.3	51
59	Analysis of precipitation characteristics on the loess plateau between 1965 and 2014, based on high-density gauge observations. Atmospheric Research, 2018, 213, 264-274.	1.8	50
60	Morphological response of the Lower Yellow River to the operation of Xiaolangdi Dam, China. Geomorphology, 2020, 350, 106931.	1.1	50
61	Automatic Model Calibration: A New Way to Improve Numerical Weather Forecasting. Bulletin of the American Meteorological Society, 2017, 98, 959-970.	1.7	49
62	Possible Increased Frequency of ENSO-Related Dry and Wet Conditions over Some Major Watersheds in a Warming Climate. Bulletin of the American Meteorological Society, 2020, 101, E409-E426.	1.7	48
63	Rapid and large-scale mapping of flood inundation via integrating spaceborne synthetic aperture radar imagery with unsupervised deep learning. ISPRS Journal of Photogrammetry and Remote Sensing, 2021, 178, 36-50.	4.9	47
64	Evaluation and application of Bayesian multi-model estimation in temperature simulations. Progress in Physical Geography, 2013, 37, 727-744.	1.4	46
65	Chinaâ€™s Policy on Dams at the Crossroads: Removal or Further Construction?. Water (Switzerland), 2015, 7, 2349-2357.	1.2	46
66	Effect of citric acid on phytoextraction and antioxidative defense in Solanum nigrum L. as a hyperaccumulator under Cd and Pb combined pollution. Environmental Earth Sciences, 2012, 65, 1923-1932.	1.3	41
67	Trend, abrupt change, and periodicity of streamflow in the mainstream of Yellow River. Environmental Monitoring and Assessment, 2013, 185, 6187-6199.	1.3	41
68	Global Observations and CMIP6 Simulations of Compound Extremes of Monthly Temperature and Precipitation. GeoHealth, 2021, 5, e2021GH000390.	1.9	39
69	A nonparametric standardized runoff index for characterizing hydrological drought on the Loess Plateau, China. Global and Planetary Change, 2018, 161, 53-65.	1.6	38
70	The nonstationary impact of local temperature changes and ENSO on extreme precipitation at the global scale. Climate Dynamics, 2017, 49, 4281-4292.	1.7	37
71	Plant diversity reduces the effect of multiple heavy metal pollution on soil enzyme activities and microbial community structure. Frontiers of Environmental Science and Engineering, 2012, 6, 213-223.	3.3	36
72	Can changes in autumn phenology facilitate earlier green-up date of northern vegetation?. Agricultural and Forest Meteorology, 2020, 291, 108077.	1.9	36

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73	Evaluating Skill of Seasonal Precipitation and Temperature Predictions of NCEP CFSv2 Forecasts over 17 Hydroclimatic Regions in China. Journal of Hydrometeorology, 2014, 15, 1546-1559.	0.7	34
74	On the Applicability of Temperature and Precipitation Data from CMIP3 for China. PLoS ONE, 2012, 7, e44659.	1.1	34
75	Evaluation of CMIP6 Global Climate Models for Simulating Land Surface Energy and Water Fluxes During 1979â€“2014. Journal of Advances in Modeling Earth Systems, 2021, 13, e2021MS002515.	1.3	33
76	Future Climate Change Hotspots Under Different 21st Century Warming Scenarios. Earth's Future, 2021, 9, e2021EF002027.	2.4	33
77	Variation of Natural Streamflow since 1470 in the Middle Yellow River, China. International Journal of Environmental Research and Public Health, 2009, 6, 2849-2864.	1.2	31
78	Evaluating the predictive skill of postâ€processed NCEP GFS ensemble precipitation forecasts in China's Huai river basin. Hydrological Processes, 2013, 27, 57-74.	1.1	31
79	Evaluation of CMIP5 Model Precipitation Using PERSIANN-CDR. Journal of Hydrometeorology, 2017, 18, 2313-2330.	0.7	31
80	Is the runoff coefficient increasing or decreasing after ecological restoration on Chinaâ€™s Loess Plateau?. International Soil and Water Conservation Research, 2021, 9, 333-343.	3.0	30
81	Bioavailable phosphorus transport from a hillslope cropland of purple soil under natural and simulated rainfall. Environmental Monitoring and Assessment, 2010, 171, 539-550.	1.3	29
82	Spatio-temporal variability of streamflow in the Yellow River: possible causes and implications. Hydrological Sciences Journal, 2012, 57, 1355-1367.	1.2	29
83	Variations in global temperature and precipitation for the period of 1948 to 2010. Environmental Monitoring and Assessment, 2014, 186, 5663-5679.	1.3	29
84	IPEAT+: A Built-In Optimization and Automatic Calibration Tool of SWAT+. Water (Switzerland), 2019, 11, 1681.	1.2	29
85	Dynamics and Attributions of Baseflow in the Semiarid Loess Plateau. Journal of Geophysical Research D: Atmospheres, 2019, 124, 3684-3701.	1.2	27
86	Spatial characteristics of soil enzyme activities and microbial community structure under different land uses in Chongming Island, China: Geostatistical modelling and PCR-RAPD method. Science of the Total Environment, 2010, 408, 3251-3260.	3.9	26
87	Bi-objective analysis of waterâ€“sediment regulation for channel scouring and delta maintenance: A study of the lower Yellow River. Global and Planetary Change, 2015, 133, 27-34.	1.6	26
88	Spatiotemporal variations in water conservation function of the Tibetan Plateau under climate change based on InVEST model. Journal of Hydrology: Regional Studies, 2022, 41, 101064.	1.0	26
89	Vegetationâ€Climate Interactions on the Loess Plateau: A Nonlinear Granger Causality Analysis. Journal of Geophysical Research D: Atmospheres, 2018, 123, 11,068.	1.2	25
90	An estimate of human and natural contributions to flood changes of the Huai River. Global and Planetary Change, 2014, 119, 39-50.	1.6	24

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91	An evaluation of parametric sensitivities of different meteorological variables simulated by the <scp>WRF</scp> model. Quarterly Journal of the Royal Meteorological Society, 2016, 142, 2925-2934.	1.0	24
92	An improved meta-Gaussian distribution model for post-processing of precipitation forecasts by censored maximum likelihood estimation. Journal of Hydrology, 2019, 574, 801-810.	2.3	24
93	Wavelet-based variability of Yellow River discharge at 500-, 100-, and 50-year timescales. Gondwana Research, 2017, 49, 94-105.	3.0	23
94	Modeling streamflow and sediment responses to climate change and human activities in the Yanhe River, China. Hydrology Research, 2018, 49, 150-162.	1.1	22
95	Effects of Vegetation Changes and Multiple Environmental Factors on Evapotranspiration Across China Over the Past 34ÂYears. Earth's Future, 2022, 10, .	2.4	22
96	Record-Breaking Heat in Northwest China in July 2015: Analysis of the Severity and Underlying Causes. Bulletin of the American Meteorological Society, 2016, 97, S97-S101.	1.7	21
97	Extreme Rainfall (R20mm, RX5day) in Yangtzeâ€"Huai, China, in Juneâ€"July 2016: The Role of ENSO and Anthropogenic Climate Change. Bulletin of the American Meteorological Society, 2018, 99, S102-S106.	1.7	20
98	Metal-resistant microorganisms and metal chelators synergistically enhance the phytoremediation efficiency of<i>Solanum nigrum</i>L. in Cd- and Pb-contaminated soil. Environmental Technology (United Kingdom), 2012, 33, 1383-1389.	1.2	19
99	Effect of time resolution of rainfall measurements on the erosivity factor in the USLE in China. International Soil and Water Conservation Research, 2020, 8, 373-382.	3.0	19
100	Variations in start date, end date, frequency and intensity of yearly temperature extremes across China during the period 1961â€"2017. Environmental Research Letters, 2020, 15, 045007.	2.2	19
101	Evaluation and projection of daily maximum and minimum temperatures over China using the high-resolution NEX-GDDP dataset. Climate Dynamics, 2020, 55, 2615-2629.	1.7	18
102	Post-processing of ensemble forecasts in low-flow period. Hydrological Processes, 2015, 29, 2438-2453.	1.1	17
103	Assessing the applicability of WRF optimal parameters under the different precipitation simulations in the Greater Beijing Area. Climate Dynamics, 2018, 50, 1927-1948.	1.7	17
104	Global Evaluation of the Noahâ€MP Land Surface Model and Suggestions for Selecting Parameterization Schemes. Journal of Geophysical Research D: Atmospheres, 2022, 127, .	1.2	17
105	Full-stream erosion in the lower Yellow River: Feasibility, sustainability and opportunity. Science of the Total Environment, 2022, 807, 150810.	3.9	16
106	The Changing Relationship Between Rainfall and Surface Runoff on the Loess Plateau, China. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2019JD032053.	1.2	15
107	Xiaolangdi Dam: A valve for streamflow extremes on the lower Yellow River. Journal of Hydrology, 2022, 606, 127426.	2.3	15
108	Increase of External Nutrient Input Impact on Carbon Sinks in Chinese Coastal Seas. Environmental Science & Technology, 2013, 47, 13215-13216.	4.6	14

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109	Homogenization and polarization of the seasonal water discharge of global rivers in response to climatic and anthropogenic effects. Science of the Total Environment, 2020, 709, 136062.	3.9	14
110	Parametric sensitivity analysis of precipitation and temperature based on multi-uncertainty quantification methods in the Weather Research and Forecasting model. Science China Earth Sciences, 2017, 60, 876-898.	2.3	13
111	Global streamflow and flood response to stratospheric aerosol geoengineering. Atmospheric Chemistry and Physics, 2018, 18, 16033-16050.	1.9	13
112	Impact of external nitrogen and phosphorus input between 2006 and 2010 on carbon cycle in China seas. Regional Environmental Change, 2015, 15, 631-641.	1.4	12
113	Changes in maximum daily runoff depth and suspended sediment yield on the Loess Plateau, China. Journal of Hydrology, 2020, 583, 124611.	2.3	12
114	Bias Correction and Ensemble Projections of Temperature Changes over Ten Subregions in CORDEX East Asia. Advances in Atmospheric Sciences, 2020, 37, 1191-1210.	1.9	11
115	Numerical modeling of gravitational erosion in rill systems. International Journal of Sediment Research, 2011, 26, 403-415.	1.8	10
116	Complex relationships between water discharge and sediment concentration across the Loess Plateau, China. Journal of Hydrology, 2021, 596, 126078.	2.3	10
117	Erosion-induced CO2 flux of small watersheds. Global and Planetary Change, 2012, 94-95, 101-110.	1.6	7
118	Responses of two desert shrubs to simulated rainfall pulses in an arid environment, northwestern China. Plant and Soil, 2019, 435, 239-255.	1.8	7
119	Changes in Unevenness of Wetâ€Day Precipitation Over China During 1961â€“2020. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2020JD034483.	1.2	6
120	Diagnosis of river basins as CO₂ sources or sinks subject to sediment movement. Earth Surface Processes and Landforms, 2012, 37, 1398-1406.	1.2	5
121	The Longitudinal Profile of a Prograding River and Its Response to Sea Level Rise. Geophysical Research Letters, 2020, 47, e2020GL090450.	1.5	3
122	Evaluation of different procedures to interpolate particle size distribution in black soils. International Journal of Sustainable Development and World Ecology, 2008, 15, 56S-62S.	3.2	2
123	Spatiotemporal changes in temperature and precipitation over the Songhua River Basin between 1961 and 2014. Global Ecology and Conservation, 2020, 24, e01261.	1.0	2
124	Long-term trends in Songhua River Basin streamflow and its multivariate relationships with meteorological factors. Environmental Science and Pollution Research, 2021, 28, 64206-64219.	2.7	2
125	Yunnan Province Vegetation Dynamics Using GIMMS NDVI from 1982~2003. , 2009, , .		0
126	Thank You to Our 2018 Peer Reviewers. GeoHealth, 2019, 3, 82-83.	1.9	0

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127	Thank You to Our 2019 Peer Reviewers. GeoHealth, 2020, 4, e2020GH000250.	1.9	0
128	Thank You to Our 2020 Peer Reviewers. GeoHealth, 2021, 5, e2021GH000404.	1.9	0
129	As ENSO Changes, So Change the Worldâ€™s Watersheds. Bulletin of the American Meteorological Society, 2020, 101, 395-398.	1.7	0
130	Thank You to Our 2021 Peer Reviewers. GeoHealth, 2022, 6, e2022GH000639.	1.9	0