

# Zengchao Hao

## List of Publications by Year in descending order

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80  
papers

5,091  
citations

101543

36  
h-index

91884

69  
g-index

83  
all docs

83  
docs citations

83  
times ranked

3702  
citing authors

#	ARTICLE	IF	CITATIONS
1	Multivariate Standardized Drought Index: A parametric multi-index model. <i>Advances in Water Resources</i> , 2013, 57, 12-18.	3.8	577
2	Drought characterization from a multivariate perspective: A review. <i>Journal of Hydrology</i> , 2015, 527, 668-678.	5.4	397
3	Global integrated drought monitoring and prediction system. <i>Scientific Data</i> , 2014, 1, 140001.	5.3	383
4	Seasonal Drought Prediction: Advances, Challenges, and Future Prospects. <i>Reviews of Geophysics</i> , 2018, 56, 108-141.	23.0	323
5	A Nonparametric Multivariate Multi-Index Drought Monitoring Framework. <i>Journal of Hydrometeorology</i> , 2014, 15, 89-101.	1.9	280
6	Changes in concurrent monthly precipitation and temperature extremes. <i>Environmental Research Letters</i> , 2013, 8, 034014.	5.2	248
7	Propagation from meteorological drought to hydrological drought under the impact of human activities: A case study in northern China. <i>Journal of Hydrology</i> , 2019, 579, 124147.	5.4	127
8	Changes in the severity of compound drought and hot extremes over global land areas. <i>Environmental Research Letters</i> , 2018, 13, 124022.	5.2	114
9	An Overview of Drought Monitoring and Prediction Systems at Regional and Global Scales. <i>Bulletin of the American Meteorological Society</i> , 2017, 98, 1879-1896.	3.3	96
10	Variations of compound precipitation and temperature extremes in China during 1961–2014. <i>Science of the Total Environment</i> , 2019, 663, 731-737.	8.0	96
11	Compound Extremes in Hydroclimatology: A Review. <i>Water (Switzerland)</i> , 2018, 10, 718.	2.7	91
12	Review of dependence modeling in hydrology and water resources. <i>Progress in Physical Geography</i> , 2016, 40, 549-578.	3.2	89
13	Probabilistic evaluation of the impact of compound dry-hot events on global maize yields. <i>Science of the Total Environment</i> , 2019, 689, 1228-1234.	8.0	87
14	Evaluation of CHIRPS and its application for drought monitoring over the Haihe River Basin, China. <i>Natural Hazards</i> , 2018, 92, 155-172.	3.4	74
15	Quantifying the relationship between compound dry and hot events and El Niño–southern Oscillation (ENSO) at the global scale. <i>Journal of Hydrology</i> , 2018, 567, 332-338.	5.4	70
16	Assessment of soil erosion characteristics in response to temperature and precipitation in a freeze-thaw watershed. <i>Geoderma</i> , 2018, 328, 56-65.	5.1	63
17	Regional and Global Land Data Assimilation Systems: Innovations, Challenges, and Prospects. <i>Journal of Meteorological Research</i> , 2019, 33, 159-189.	2.4	63
18	An integrated package for drought monitoring, prediction and analysis to aid drought modeling and assessment. <i>Environmental Modelling and Software</i> , 2017, 91, 199-209.	4.5	62

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19	A Framework for Exploring Joint Effects of Conditional Factors on Compound Floods. <i>Water Resources Research</i> , 2018, 54, 2681-2696.	4.2	61
20	Probabilistic prediction of hydrologic drought using a conditional probability approach based on the meta-Gaussian model. <i>Journal of Hydrology</i> , 2016, 542, 772-780.	5.4	59
21	Characterization of agricultural drought propagation over China based on bivariate probabilistic quantification. <i>Journal of Hydrology</i> , 2021, 598, 126194.	5.4	59
22	Statistical prediction of the severity of compound dry-hot events based on El Niño-Southern Oscillation. <i>Journal of Hydrology</i> , 2019, 572, 243-250.	5.4	58
23	Agricultural drought prediction in China based on drought propagation and large-scale drivers. <i>Agricultural Water Management</i> , 2021, 255, 107028.	5.6	57
24	Drought propagation under global warming: Characteristics, approaches, processes, and controlling factors. <i>Science of the Total Environment</i> , 2022, 838, 156021.	8.0	57
25	A theoretical drought classification method for the multivariate drought index based on distribution properties of standardized drought indices. <i>Advances in Water Resources</i> , 2016, 92, 240-247.	3.8	56
26	Using river sediments to analyze the driving force difference for non-point source pollution dynamics between two scales of watersheds. <i>Water Research</i> , 2018, 139, 311-320.	11.3	56
27	Evaluation of severity changes of compound dry and hot events in China based on a multivariate multi-index approach. <i>Journal of Hydrology</i> , 2020, 583, 124580.	5.4	55
28	Snowmelt water drives higher soil erosion than rainfall water in a mid-high latitude upland watershed. <i>Journal of Hydrology</i> , 2018, 556, 438-448.	5.4	51
29	Projected increase in compound dry and hot events over global land areas. <i>International Journal of Climatology</i> , 2021, 41, 393-403.	3.5	51
30	Integrating Entropy and Copula Theories for Hydrologic Modeling and Analysis. <i>Entropy</i> , 2015, 17, 2253-2280.	2.2	45
31	A multivariate approach for statistical assessments of compound extremes. <i>Journal of Hydrology</i> , 2018, 565, 87-94.	5.4	44
32	Dry-hot magnitude index: a joint indicator for compound event analysis. <i>Environmental Research Letters</i> , 2019, 14, 064017.	5.2	44
33	A monitoring and prediction system for compound dry and hot events. <i>Environmental Research Letters</i> , 2019, 14, 114034.	5.2	44
34	A general framework for multivariate multi-index drought prediction based on Multivariate Ensemble Streamflow Prediction (MESP). <i>Journal of Hydrology</i> , 2016, 539, 1-10.	5.4	43
35	Quantitative risk assessment of the effects of drought on extreme temperature in eastern China. <i>Journal of Geophysical Research D: Atmospheres</i> , 2017, 122, 9050-9059.	3.3	43
36	Quantifying likelihoods of extreme occurrences causing maize yield reduction at the global scale. <i>Science of the Total Environment</i> , 2020, 704, 135250.	8.0	39

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37	Compound Events under Global Warming: A Dependence Perspective. <i>Journal of Hydrologic Engineering - ASCE</i> , 2020, 25, .	1.9	39
38	Exposure inequality assessment for PM <sub>2.5</sub> and the potential association with environmental health in Beijing. <i>Science of the Total Environment</i> , 2018, 635, 769-778.	8.0	37
39	Effects of soil moisture content on upland nitrogen loss. <i>Journal of Hydrology</i> , 2017, 546, 71-80.	5.4	35
40	Spatial and Temporal Variations of Compound Droughts and Hot Extremes in China. <i>Atmosphere</i> , 2019, 10, 95.	2.3	35
41	Projections of future meteorological droughts in China under CMIP6 from a three-dimensional perspective. <i>Agricultural Water Management</i> , 2021, 252, 106849.	5.6	34
42	Impact of dependence changes on the likelihood of hot extremes under drought conditions in the United States. <i>Journal of Hydrology</i> , 2020, 581, 124410.	5.4	33
43	Patterns of precipitation and soil moisture extremes in Texas, US: A complex network analysis. <i>Advances in Water Resources</i> , 2018, 112, 203-213.	3.8	32
44	A database for characteristics and variations of global compound dry and hot events. <i>Weather and Climate Extremes</i> , 2020, 30, 100299.	4.1	31
45	Probabilistic assessments of the impacts of compound dry and hot events on global vegetation during growing seasons. <i>Environmental Research Letters</i> , 2021, 16, 074055.	5.2	30
46	Changes in the dependence between global precipitation and temperature from observations and model simulations. <i>International Journal of Climatology</i> , 2019, 39, 4895-4906.	3.5	29
47	Influence of Large-scale Circulation Patterns on Compound Dry and Hot Events in China. <i>Journal of Geophysical Research D: Atmospheres</i> , 2021, 126, e2020JD033918.	3.3	28
48	A Statistical Method for Categorical Drought Prediction Based on NLDAS-2. <i>Journal of Applied Meteorology and Climatology</i> , 2016, 55, 1049-1061.	1.5	27
49	Extended growing season reduced river runoff in Luanhe River basin. <i>Journal of Hydrology</i> , 2020, 582, 124538.	5.4	27
50	Increase in compound dry-warm and wet-warm events under global warming in CMIP6 models. <i>Global and Planetary Change</i> , 2022, 210, 103773.	3.5	25
51	Changes in fertilizer categories significantly altered the estimates of ammonia volatilizations induced from increased synthetic fertilizer application to Chinese rice fields. <i>Agriculture, Ecosystems and Environment</i> , 2018, 265, 112-122.	5.3	24
52	Statistical modelling and climate variability of compound surge and precipitation events in a managed water system: a case study in the Netherlands. <i>Hydrology and Earth System Sciences</i> , 2021, 25, 3595-3615.	4.9	24
53	Changes and driving factors of compound agricultural droughts and hot events in eastern China. <i>Agricultural Water Management</i> , 2022, 263, 107485.	5.6	24
54	Joint modeling of precipitation and temperature under influences of El Niño Southern Oscillation for compound event evaluation and prediction. <i>Atmospheric Research</i> , 2020, 245, 105090.	4.1	23

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55	Changes in climate-crop yield relationships affect risks of crop yield reduction. <i>Agricultural and Forest Meteorology</i> , 2021, 304-305, 108401.	4.8	23
56	Farmland shift due to climate warming and impacts on temporal-spatial distributions of water resources in a middle-high latitude agricultural watershed. <i>Journal of Hydrology</i> , 2017, 547, 156-167.	5.4	22
57	Rainwater characteristics and interaction with atmospheric particle matter transportation analyzed by remote sensing around Beijing. <i>Science of the Total Environment</i> , 2019, 651, 532-540.	8.0	22
58	A joint extreme index for compound droughts and hot extremes. <i>Theoretical and Applied Climatology</i> , 2020, 142, 321-328.	2.8	22
59	Response of vegetation to El Niño-Southern Oscillation (ENSO) via compound dry and hot events in southern Africa. <i>Global and Planetary Change</i> , 2020, 195, 103358.	3.5	22
60	Population exposure to compound dry and hot events in China under 1.5 and 2°C global warming. <i>International Journal of Climatology</i> , 2021, 41, 5766-5775.	3.5	22
61	Compound events and associated impacts in China. <i>IScience</i> , 2022, 25, 104689.	4.1	22
62	Entropy-based parameter estimation for extended Burr XII distribution. <i>Stochastic Environmental Research and Risk Assessment</i> , 2009, 23, 1113-1122.	4.0	21
63	Toward a categorical drought prediction system based on U.S. Drought Monitor (USDM) and climate forecast. <i>Journal of Hydrology</i> , 2017, 551, 300-305.	5.4	21
64	Modified control strategies for critical source area of nitrogen (CSAN) in a typical freeze-thaw watershed. <i>Journal of Hydrology</i> , 2017, 551, 518-531.	5.4	20
65	A multi-index evaluation of changes in compound dry and hot events of global maize areas. <i>Journal of Hydrology</i> , 2021, 602, 126728.	5.4	20
66	Watershed water circle dynamics during long term farmland conversion in freeze-thawing area. <i>Journal of Hydrology</i> , 2015, 523, 555-562.	5.4	18
67	Probabilistic drought characterization in the categorical form using ordinal regression. <i>Journal of Hydrology</i> , 2016, 535, 331-339.	5.4	16
68	Farmland-atmosphere feedbacks amplify decreases in diffuse nitrogen pollution in a freeze-thaw agricultural area under climate warming conditions. <i>Science of the Total Environment</i> , 2017, 579, 484-494.	8.0	14
69	Changes in the drought condition over northern East Asia and the connections with extreme temperature and precipitation indices. <i>Global and Planetary Change</i> , 2021, 207, 103645.	3.5	14
70	Quantitative contribution of ENSO to precipitation-temperature dependence and associated compound dry and hot events. <i>Atmospheric Research</i> , 2021, 260, 105695.	4.1	12
71	Anthropogenic influence on compound dry and hot events in China based on Coupled Model Intercomparison Project Phase 6 models. <i>International Journal of Climatology</i> , 2022, 42, 4379-4390.	3.5	12
72	Anthropogenically forced increases in compound dry and hot events at the global and continental scales. <i>Environmental Research Letters</i> , 2022, 17, 024018.	5.2	12

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73	SWAT-N2O coupler: An integration tool for soil N2O emission modeling. <i>Environmental Modelling and Software</i> , 2019, 115, 86-97.	4.5	11
74	Systematic assessment of the development and recovery characteristics of hydrological drought in a semi-arid area. <i>Science of the Total Environment</i> , 2022, 836, 155472.	8.0	11
75	GDBC: A tool for generating global-scale distributed basin morphometry. <i>Environmental Modelling and Software</i> , 2016, 83, 212-223.	4.5	10
76	Climate change impacts on concurrences of hydrological droughts and high temperature extremes in a semi-arid river basin of China. <i>Journal of Arid Environments</i> , 2022, 202, 104768.	2.4	10
77	Categorical prediction of compound dry and hot events in northeast China based on large-scale climate signals. <i>Journal of Hydrology</i> , 2021, 602, 126729.	5.4	7
78	Comparisons of changes in compound dry and hot events in China based on different drought indicators. <i>International Journal of Climatology</i> , 2022, 42, 8133-8145.	3.5	5
79	Periodic decadal swings in dry/wet conditions over Central Asia. <i>Environmental Research Letters</i> , 2022, 17, 054050.	5.2	2
80	Satellite Remote Sensing Drought Monitoring and Predictions over the Globe. , 2016, , 259-296.		1