Shih-Chieh Kao

List of Publications by Year
in descending order

65 papers	3,272 citations	186265 28 h-index	155660 55 g-index
78 all docs	78 docs citations	78 times ranked	3760 citing authors

#	Article	IF	Citations
1	Relative effect of anthropogenic warming and natural climate variability to changes in Compound drought and heatwaves. Journal of Hydrology, 2022, 605, 127396.	5.4	28
2	The implications of future climate change on the blue water footprint of hydropower in the contiguous US [*]. Environmental Research Letters, 2021, 16, 034003.	5.2	10
3	Reanalysis of Water Withdrawal for Irrigation, Electric Power, and Public Supply Sectors in the Conterminous United States, 1950â€“2016. Water Resources Research, 2021, 57, e2020WR027751.	4.2	8
4	Simulation of Hurricane Harvey flood event through coupled hydrologicâ€hydraulic models: Challenges and next steps. Journal of Flood Risk Management, 2021, 14, e12716.	3.3	14
5	Climate Change and Changes in Compound Coastalâ€Riverine Flooding Hazard Along the U.S. Coasts. Earth's Future, 2021, 9, e2021EF002055.	6.3	66
6	Assessing climate-change-induced flood risk in the Conasauga River watershed: an application of ensemble hydrodynamic inundation modeling. Natural Hazards and Earth System Sciences, 2021, 21, 1739-1757.	3.6	8
7	Shifts in hydroclimatology of US megaregions in response to climate change. Environmental Research Communications, 2021, 3, 065002.	2.3	10
8	TRITON: A Multi-GPU open source 2D hydrodynamic flood model. Environmental Modelling and Software, 2021, 141, 105034.	4.5	51
9	Gridded daily weather data for North America with comprehensive uncertainty quantification. Scientific Data, 2021, 8, 190.	5.3	85
10	A multi-reservoir model for projecting drought impacts on thermoelectric disruption risk across the Texas power grid. Energy, 2021, 231, 120892.	8.8	5
11	Accounting for uncertainty in complex alluvial aquifer modeling by Bayesian multi-model approach. Journal of Hydrology, 2021, 601, 126682.	5.4	7
12	A heuristic tool to assess regional impacts of renewable energy infrastructure on conservation areas. Biological Conservation, 2021, 263, 109334.	4.1	3
13	Evaluating precipitation, streamflow, and inundation forecasting skills during extreme weather events: A case study for an urban watershed. Journal of Hydrology, 2021, 603, 127126.	5.4	11
14	Exploring Hydrologic Model Process Connectivity at the Continental Scale Through an Information Theory Approach. Water Resources Research, 2020, 56, e2020WR027340.	4.2	13
15	Variability of precipitation areal reduction factors in the conterminous United States. Journal of Hydrology X, 2020, 9, 100064.	1.6	3
16	Assessing Shifts in Regional Hydroclimatic Conditions of U.S. River Basins in Response to Climate Change over the 21st Century. Earth's Future, 2020, 8, e2020EF001657.	6.3	31
17	Quantifying the effects of urbanization on floods in a changing environment to promote water security â€" A case study of two adjacent basins in Texas. Journal of Hydrology, 2020, 589, 125154.	5.4	31
18	High-performance computing in water resources hydrodynamics. Journal of Hydroinformatics, 2020, 22, 1217-1235.	2.4	27

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19	Multi-model Hydroclimate Projections for the Alabama-Coosa-Tallapoosa River Basin in the Southeastern United States. Scientific Reports, 2020, 10, 2870.	3.3	15
20	Machine learning assisted hybrid models can improve streamflow simulation in diverse catchments across the conterminous US. Environmental Research Letters, 2020, 15, 104022.	5.2	81
21	Performance Evaluation of a Two-Dimensional Flood Model on Heterogeneous High-Performance Computing Architectures. , 2020, , .		9
22	Streamflow in the Columbia River Basin: Quantifying Changes Over the Period 1951â€2008 and Determining the Drivers of Those Changes. Water Resources Research, 2019, 55, 6640-6652.	4.2	15
23	How Do Modeling Decisions Affect the Spread Among Hydrologic Climate Change Projections? Exploring a Large Ensemble of Simulations Across a Diversity of Hydroclimates. Earth's Future, 2019, 7, 623-637.	6.3	75
24	In Quest of Calibration Density and Consistency in Hydrologic Modeling: Distributed Parameter Calibration against Streamflow Characteristics. Water Resources Research, 2019, 55, 7784-7803.	4.2	44
25	Ensemble-based flood vulnerability assessment for probable maximum flood in a changing environment. Journal of Hydrology, 2019, 576, 342-355.	5.4	28
26	Bayesian Hierarchical Model Uncertainty Quantification for Future Hydroclimate Projections in Southern Hills-Gulf Region, USA. Water (Switzerland), 2019, 11, 268.	2.7	8
27	Hurricane Harvey Highlights: Need to Assess the Adequacy of Probable Maximum Precipitation Estimation Methods. Journal of Hydrologic Engineering - ASCE, 2019, 24, .	1.9	11
28	Contribution of environmental forcings to US runoff changes for the period 1950â€“2010. Environmental Research Letters, 2018, 13, 054023.	5.2	9
29	Sensitivity of Probable Maximum Flood in a Changing Environment. Water Resources Research, 2018, 54, 3913-3936.	4.2	24
30	Effects of climate change on streamflow extremes and implications for reservoir inflow in the United States. Journal of Hydrology, 2018, 556, 359-370.	5.4	70
31	A modeling framework for evaluating the drought resilience of a surface water supply system under non-stationarity. Journal of Hydrology, 2018, 563, 22-32.	5.4	24
32	A stream classification system to explore the physical habitat diversity and anthropogenic impacts in riverscapes of the eastern United States. PLoS ONE, 2018, 13, e0198439.	2.5	17
33	Effects of climate change on probable maximum precipitation: A sensitivity study over the Alabamaâ€Coosaâ€Tallapoosa River Basin. Journal of Geophysical Research D: Atmospheres, 2017, 122, 4808-4828.	3.3	37
34	Classification of US Hydropower Dams by their Modes of Operation. River Research and Applications, 2016, 32, 1450-1468.	1.7	50
35	Uncertainty Analysis in Geospatial Merit Matrixâ€“Based Hydropower Resource Assessment. Journal of Water Resources Planning and Management - ASCE, 2016, 142, 04016020.	2.6	1
36	High-resolution ensemble projections of near-term regional climate over the continental United States. Journal of Geophysical Research D: Atmospheres, 2016, 121, 9943-9963.	3.3	65

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37	Regional hydrologic response to climate change in the conterminous United States using high-resolution hydroclimate simulations. Global and Planetary Change, 2016, 143, 100-117.	3.5	92
38	Integrating a reservoir regulation scheme into a spatially distributed hydrological model. Advances in Water Resources, 2016, 98, 16-31.	3.8	94
39	Extreme hydrological changes in the southwestern US drive reductions in water supply to Southern California by mid century. Environmental Research Letters, 2016, 11, 094026.	5.2	37
40	Conjunctive management of surface and groundwater resources under projected future climate change scenarios. Journal of Hydrology, 2016, 540, 397-411.	5.4	33
41	Identifying High Powerâ€“Density Stream Reaches through Refined Geospatial Resolution in Hydropower Resource Assessment. Journal of Water Resources Planning and Management - ASCE, 2016, 142, 06016001.	2.6	2
42	A multi-model and multi-index evaluation of drought characteristics in the 21st century. Journal of Hydrology, 2015, 526, 196-207.	5.4	296
43	A Multi-scale Spatial Approach to Address Environmental Effects of Small Hydropower Development. Environmental Management, 2015, 55, 217-243.	2.7	28
44	Projecting changes in annual hydropower generation using regional runoff data: An assessment of the United States federal hydropower plants. Energy, 2015, 80, 239-250.	8.8	82
45	A large-scale, high-resolution hydrological model parameter data set for climate change impact assessment for the conterminous US. Hydrology and Earth System Sciences, 2014, 18, 67-84.	4.9	94
46	Updating the US hydrologic classification: an approach to clustering and stratifying ecohydrologic data. Ecohydrology, 2014, 7, 903-926.	2.4	50
47	Stream-Reach Identification for New Run-of-River Hydropower Development through a Merit Matrixâ€“Based Geospatial Algorithm. Journal of Water Resources Planning and Management - ASCE, 2014, 140, 04014016.	2.6	5
48	Nearâ€term acceleration of hydroclimatic change in the western U.S.. Journal of Geophysical Research D: Atmospheres, 2013, 118, 10,676.	3.3	86
49	Lack of uniform trends but increasing spatial variability in observed Indian rainfall extremes. Nature Climate Change, 2012, 2, 86-91.	18.8	258
50	Copula-Based Flood Frequency Analysis at Ungauged Basin Confluences: Nashville, Tennessee. Journal of Hydrologic Engineering - ASCE, 2012, 17, 790-799.	1.9	20
51	Simulating the household plug-in hybrid electric vehicle distribution and its electric distribution network impacts. Transportation Research, Part D: Transport and Environment, 2012, 17, 548-554.	6.8	23
52	Dependence-Preserving Approach to Synthesizing Household Characteristics. Transportation Research Record, 2012, 2302, 192-200.	1.9	9
53	Intensity, duration, and frequency of precipitation extremes under 21st-century warming scenarios. Journal of Geophysical Research, 2011, 116, .	3.3	91
54	Statistical Hydrology. , 2011, , 479-517.		29

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55	A copula-based joint deficit index for droughts. Journal of Hydrology, 2010, 380, 121-134.	5.4	488
56	Reply to comment by T. P. Hutchinson on â€œTrivariate statistical analysis of extreme rainfall events via the Plackett family of copulasâ€• Water Resources Research, 2010, 46, .	4.2	3
57	A Spatio-Temporal Drought Analysis for the Midwestern US. , 2009, , .		6
58	Hydrologic and Environmental Performance of a Subsurface Constructed Wetland at a Highway Rest Area: A Case Study. Water Quality, Exposure, and Health, 2009, 1, 35-48.	1.5	4
59	Motivating Complex Dependence Structures in Data Mining: A Case Study with Anomaly Detection in Climate. , 2009, , .		11
60	Trivariate statistical analysis of extreme rainfall events via the Plackett family of copulas. Water Resources Research, 2008, 44, .	4.2	186
61	At-Site Based Evaluation of Rainfall Estimates for Indiana. Journal of Hydrologic Engineering - ASCE, 2008, 13, 184-188.	1.9	1
62	Probabilistic structure of storm surface runoff considering the dependence between average intensity and storm duration of rainfall events. Water Resources Research, 2007, 43, .	4.2	45
63	A bivariate frequency analysis of extreme rainfall with implications for design. Journal of Geophysical Research, 2007, 112, .	3.3	113
64	Updated Precipitation Frequency Estimates for Kansas City: Comparison with TP-40 and HYDRO-35. Journal of Hydrologic Engineering - ASCE, 2006, 11, 206-213.	1.9	7
65	Development of regional design hyetographs. Hydrological Processes, 2005, 19, 937-946.	2.6	31