

# Lei Cheng

## List of Publications by Year in descending order

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Version: 2024-02-01

92  
papers

5,825  
citations

117453

34  
h-index

76769

74  
g-index

100  
all docs

100  
docs citations

100  
times ranked

6060  
citing authors

#	ARTICLE	IF	CITATIONS
1	Greening of the Earth and its drivers. <i>Nature Climate Change</i> , 2016, 6, 791-795.	8.1	1,675
2	Detection and attribution of vegetation greening trend in China over the last 30 years. <i>Global Change Biology</i> , 2015, 21, 1601-1609.	4.2	597
3	Change in terrestrial ecosystem water-use efficiency over the last three decades. <i>Global Change Biology</i> , 2015, 21, 2366-2378.	4.2	215
4	Recent increases in terrestrial carbon uptake at little cost to the water cycle. <i>Nature Communications</i> , 2017, 8, 110.	5.8	186
5	Optimal daily generation scheduling of large hydro-photovoltaic hybrid power plants. <i>Energy Conversion and Management</i> , 2018, 171, 528-540.	4.4	180
6	Deriving operating rules for a large-scale hydro-photovoltaic power system using implicit stochastic optimization. <i>Journal of Cleaner Production</i> , 2018, 195, 562-572.	4.6	113
7	Long-term complementary operation of a large-scale hydro-photovoltaic hybrid power plant using explicit stochastic optimization. <i>Applied Energy</i> , 2019, 238, 863-875.	5.1	109
8	Exploring the physical controls of regional patterns of flow duration curves – Part 3: A catchment classification system based on regime curve indicators. <i>Hydrology and Earth System Sciences</i> , 2012, 16, 4467-4482.	1.9	104
9	Robust hydroelectric unit commitment considering integration of large-scale photovoltaic power: A case study in China. <i>Applied Energy</i> , 2018, 228, 1341-1352.	5.1	103
10	Multi-step wind speed prediction by combining a WRF simulation and an error correction strategy. <i>Renewable Energy</i> , 2021, 163, 772-782.	4.3	103
11	Exploring the physical controls of regional patterns of flow duration curves – Part 1: Insights from statistical analyses. <i>Hydrology and Earth System Sciences</i> , 2012, 16, 4435-4446.	1.9	102
12	Global patterns and climate drivers of water-use efficiency in terrestrial ecosystems deduced from satellite-based datasets and carbon cycle models. <i>Global Ecology and Biogeography</i> , 2016, 25, 311-323.	2.7	102
13	Seasonal responses of terrestrial ecosystem water-use efficiency to climate change. <i>Global Change Biology</i> , 2016, 22, 2165-2177.	4.2	100
14	Evaluating relative merits of four baseflow separation methods in Eastern Australia. <i>Journal of Hydrology</i> , 2017, 549, 252-263.	2.3	100
15	Use of satellite leaf area index estimating evapotranspiration and gross assimilation for Australian ecosystems. <i>Ecohydrology</i> , 2018, 11, e1974.	1.1	100
16	Assessment of GCMs simulation performance for precipitation and temperature from CMIP5 to CMIP6 over the Tibetan Plateau. <i>International Journal of Climatology</i> , 2021, 41, 3994-4018.	1.5	92
17	Exploring the physical controls of regional patterns of flow duration curves – Part 4: A synthesis of empirical analysis, process modeling and catchment classification. <i>Hydrology and Earth System Sciences</i> , 2012, 16, 4483-4498.	1.9	87
18	Assessing interannual variability of evapotranspiration at the catchment scale using satellite-based evapotranspiration data sets. <i>Water Resources Research</i> , 2011, 47, .	1.7	77

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19	Exploring the physical controls of regional patterns of flow duration curves – Part 2: Role of seasonality, the regime curve, and associated process controls. <i>Hydrology and Earth System Sciences</i> , 2012, 16, 4447-4465.	1.9	73
20	Hydropower reservoir reoperation to adapt to large-scale photovoltaic power generation. <i>Energy</i> , 2019, 179, 268-279.	4.5	73
21	Yellow River basin: living with scarcity. <i>Water International</i> , 2010, 35, 681-701.	0.4	68
22	Impact of the 2015/2016 El Niño on the terrestrial carbon cycle constrained by bottom-up and top-down approaches. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2018, 373, 20170304.	1.8	63
23	Groundwater storage trends in the Loess Plateau of China estimated from streamflow records. <i>Journal of Hydrology</i> , 2015, 530, 281-290.	2.3	62
24	Simulating spatiotemporal variability of blue and green water resources availability with uncertainty analysis. <i>Hydrological Processes</i> , 2015, 29, 1942-1955.	1.1	58
25	Estimation of land surface evaporation using a generalized nonlinear complementary relationship. <i>Journal of Geophysical Research D: Atmospheres</i> , 2017, 122, 1475-1487.	1.2	56
26	Long-term streamflow trends in the middle reaches of the Yellow River Basin: detecting drivers of change. <i>Hydrological Processes</i> , 2016, 30, 1315-1329.	1.1	53
27	Impacts of future climate change on water resource availability of eastern Australia: A case study of the Manning River basin. <i>Journal of Hydrology</i> , 2019, 573, 49-59.	2.3	52
28	Identifying time-varying hydrological model parameters to improve simulation efficiency by the ensemble Kalman filter: A joint assimilation of streamflow and actual evapotranspiration. <i>Journal of Hydrology</i> , 2019, 568, 758-768.	2.3	52
29	Spatial Distribution of Global Landscape Evaporation in the Early Twenty-First Century by Means of a Generalized Complementary Approach. <i>Journal of Hydrometeorology</i> , 2020, 21, 287-298.	0.7	49
30	Recent leveling off of vegetation greenness and primary production reveals the increasing soil water limitations on the greening Earth. <i>Science Bulletin</i> , 2021, 66, 1462-1471.	4.3	46
31	A Budyko-based framework for quantifying the impacts of aridity index and other factors on annual runoff. <i>Journal of Hydrology</i> , 2019, 579, 124224.	2.3	45
32	Automated Selection of Pure Base Flows from Regular Daily Streamflow Data: Objective Algorithm. <i>Journal of Hydrologic Engineering - ASCE</i> , 2016, 21, .	0.8	40
33	Quantifying the impacts of vegetation changes on catchment storage–discharge dynamics using paired catchment data. <i>Water Resources Research</i> , 2017, 53, 5963-5979.	1.7	36
34	Real-time reservoir flood control operation for cascade reservoirs using a two-stage flood risk analysis method. <i>Journal of Hydrology</i> , 2019, 577, 123954.	2.3	35
35	A back-fitting algorithm to improve real-time flood forecasting. <i>Journal of Hydrology</i> , 2018, 562, 140-150.	2.3	34
36	A novel homozygous mutation in the FSHR gene is causative for primary ovarian insufficiency. <i>Fertility and Sterility</i> , 2017, 108, 1050-1055.e2.	0.5	32

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37	Large-scale baseflow index prediction using hydrological modelling, linear and multilevel regression approaches. <i>Journal of Hydrology</i> , 2020, 585, 124780.	2.3	31
38	Modelling vegetation water-use and groundwater recharge as affected by climate variability in an arid-zone Acacia savanna woodland. <i>Journal of Hydrology</i> , 2014, 519, 1084-1096.	2.3	30
39	Impacts of elevated CO <sub>2</sub> , climate change and their interactions on water budgets in four different catchments in Australia. <i>Journal of Hydrology</i> , 2014, 519, 1350-1361.	2.3	30
40	Spatiotemporal Variation of Drought and Associated Multi-Scale Response to Climate Change over the Yarlung Zangbo River Basin of Qinghai-Tibet Plateau, China. <i>Remote Sensing</i> , 2019, 11, 1596.	1.8	30
41	An improved complementary relationship for estimating evapotranspiration attributed to climate change and revegetation in the Loess Plateau, China. <i>Journal of Hydrology</i> , 2021, 592, 125516.	2.3	30
42	Quantifying the impacts of land-cover changes on global evapotranspiration based on the continuous remote sensing observations during 1982-2016. <i>Journal of Hydrology</i> , 2021, 598, 126231.	2.3	29
43	Incorporating reservoir impacts into flood frequency distribution functions. <i>Journal of Hydrology</i> , 2019, 568, 234-246.	2.3	25
44	The effect of spatial rainfall variability on water balance modelling for south-eastern Australian catchments. <i>Journal of Hydrology</i> , 2013, 493, 16-29.	2.3	23
45	Baseflow estimation for catchments in the Loess Plateau, China. <i>Journal of Environmental Management</i> , 2019, 233, 264-270.	3.8	23
46	An integrated framework for optimizing large hydro-photovoltaic hybrid energy systems: Capacity planning and operations management. <i>Journal of Cleaner Production</i> , 2021, 306, 127253.	4.6	23
47	Improved Understanding of How Catchment Properties Control Hydrological Partitioning Through Machine Learning. <i>Water Resources Research</i> , 2022, 58, .	1.7	22
48	Hybrid Two-Stage Stochastic Methods Using Scenario-Based Forecasts for Reservoir Refill Operations. <i>Journal of Water Resources Planning and Management - ASCE</i> , 2018, 144, .	1.3	21
49	Adapting reservoir operations to the nexus across water supply, power generation, and environment systems: An explanatory tool for policy makers. <i>Journal of Hydrology</i> , 2019, 574, 257-275.	2.3	21
50	Quantifying the contribution of climate and underlying surface changes to alpine runoff alterations associated with glacier melting. <i>Hydrological Processes</i> , 2021, 35, e14069.	1.1	21
51	Evaluating Global Land Surface Models in CMIP5: Analysis of Ecosystem Water- and Light-Use Efficiencies and Rainfall Partitioning. <i>Journal of Climate</i> , 2018, 31, 2995-3008.	1.2	20
52	Global Phosphorus Losses from Croplands under Future Precipitation Scenarios. <i>Environmental Science &amp; Technology</i> , 2020, 54, 14761-14771.	4.6	20
53	Improving hydrological projection performance under contrasting climatic conditions using spatial coherence through a hierarchical Bayesian regression framework. <i>Hydrology and Earth System Sciences</i> , 2019, 23, 3405-3421.	1.9	19
54	High spatial resolution simulation of profile soil moisture by assimilating multi-source remote-sensed information into a distributed hydrological model. <i>Journal of Hydrology</i> , 2021, 597, 126311.	2.3	17

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55	Evaluation of baseflow modelling structure in monthly water balance models using 443 Australian catchments. <i>Journal of Hydrology</i> , 2020, 591, 125572.	2.3	16
56	Sizing utility-scale photovoltaic power generation for integration into a hydropower plant considering the effects of climate change: A case study in the Longyangxia of China. <i>Energy</i> , 2021, 236, 121519.	4.5	16
57	Impacts of the Three Gorges Dam on the streamflow fluctuations in the downstream region. <i>Journal of Hydrology</i> , 2021, 598, 126480.	2.3	15
58	Classification-Based Spatiotemporal Variations of Pan Evaporation Across the Guangdong Province, South China. <i>Water Resources Management</i> , 2015, 29, 901-912.	1.9	14
59	Determining dynamic water level control boundaries for a multi-reservoir system during flood seasons with considering channel storage. <i>Journal of Flood Risk Management</i> , 2020, 13, e12586.	1.6	13
60	An Analytical Baseflow Coefficient Curve for Depicting the Spatial Variability of Mean Annual Catchment Baseflow. <i>Water Resources Research</i> , 2021, 57, e2020WR029529.	1.7	13
61	Deriving adaptive long-term complementary operating rules for a large-scale hydro-photovoltaic hybrid power plant using ensemble Kalman filter. <i>Applied Energy</i> , 2021, 301, 117482.	5.1	13
62	Quantifying the effects of elevated CO <sub>2</sub> on water budgets by combining FACE data with an ecohydrological model. <i>Ecohydrology</i> , 2014, 7, 1574-1588.	1.1	12
63	Responses of LAI to rainfall explain contrasting sensitivities to carbon uptake between forest and non-forest ecosystems in Australia. <i>Scientific Reports</i> , 2017, 7, 11720.	1.6	12
64	Improving Runoff Prediction Using Remotely Sensed Actual Evapotranspiration during Rainless Periods. <i>Journal of Hydrologic Engineering - ASCE</i> , 2019, 24, 04019050.	0.8	11
65	Management of vegetative land for more water yield under future climate conditions in the over-utilized water resources regions: A case study in the Xiong'an New area. <i>Journal of Hydrology</i> , 2021, 600, 126563.	2.3	11
66	Detecting and quantifying the impact of long-term terrestrial water storage changes on the runoff ratio in the head regions of the two largest rivers in China. <i>Journal of Hydrology</i> , 2021, 601, 126668.	2.3	11
67	Diagnosing structural deficiencies of a hydrological model by time-varying parameters. <i>Journal of Hydrology</i> , 2022, 605, 127305.	2.3	11
68	Reply to comment by Jozsef Szilagyi on "Assessing interannual variability of evapotranspiration at the catchment scale using satellite-based evapotranspiration data sets". <i>Water Resources Research</i> , 2012, 48, .	1.7	10
69	Quantifying the Impacts of Climate Change and Vegetation Variation on Actual Evapotranspiration Based on the Budyko Hypothesis in North and South Panjiang Basin, China. <i>Water (Switzerland)</i> , 2020, 12, 508.	1.2	10
70	Vegetation greening concurs with increases in dry season water yield over the Upper Brahmaputra River basin. <i>Journal of Hydrology</i> , 2021, 603, 126981.	2.3	10
71	The influence of a prolonged meteorological drought on catchment water storage capacity: a hydrological-model perspective. <i>Hydrology and Earth System Sciences</i> , 2020, 24, 4369-4387.	1.9	10
72	Reducing the uncertainty of time-varying hydrological model parameters using spatial coherence within a hierarchical Bayesian framework. <i>Journal of Hydrology</i> , 2019, 577, 123927.	2.3	9

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73	A Climatic Perspective on the Impacts of Global Warming on Water Cycle of Cold Mountainous Catchments in the Tibetan Plateau: A Case Study in Yarlung Zangbo River Basin. <i>Water (Switzerland)</i> , 2020, 12, 2338.	1.2	9
74	Effect of GCM credibility on water resource system robustness under climate change based on decision scaling. <i>Advances in Water Resources</i> , 2021, 158, 104063.	1.7	9
75	Investigating the downstream sediment load change by an index coupling effective rainfall information with reservoir sediment trapping capacity. <i>Journal of Hydrology</i> , 2020, 590, 125200.	2.3	7
76	Optimizing the Reservoir Operation for Hydropower Generation by Using the Flexibility Index to Consider Inflow Uncertainty. <i>Journal of Water Resources Planning and Management - ASCE</i> , 2021, 147, .	1.3	7
77	Integrating teleconnection factors into long-term complementary operating rules for hybrid power systems: A case study of Longyangxia hydro-photovoltaic plant in China. <i>Renewable Energy</i> , 2022, 186, 517-534.	4.3	7
78	Evaluation of changes in streamflow and the underlying causes: a perspective of an upstream catchment in Haihe River basin, China. <i>Journal of Water and Climate Change</i> , 2020, 11, 241-257.	1.2	6
79	Network analysis of the food-“energy”-water nexus in China’s Yangtze River Economic Belt from a synergetic perspective. <i>Environmental Research Letters</i> , 2021, 16, 054001.	2.2	6
80	Resilience analysis of the nexus across water supply, power generation and environmental systems from a stochastic perspective. <i>Journal of Environmental Management</i> , 2021, 289, 112513.	3.8	6
81	Immune-related effects of compound astragalus polysaccharide and sulfated epimedium polysaccharide on newborn piglets. <i>Animal Biotechnology</i> , 2021, , 1-12.	0.7	5
82	Baseflow signature behaviour of mountainous catchments around the North China Plain. <i>Journal of Hydrology</i> , 2022, 606, 127450.	2.3	5
83	Representing Irrigation Processes in the Land Surface-Hydrological Model and a Case Study in the Yangtze River Basin, China. <i>Journal of Advances in Modeling Earth Systems</i> , 2022, 14, .	1.3	5
84	The temporal variations in runoff-generation parameters of the Xinanjiang model due to human activities: A case study in the upper Yangtze River Basin, China. <i>Journal of Hydrology: Regional Studies</i> , 2021, 37, 100910.	1.0	4
85	Investigating the spatial variability of water security risk and its driving mechanisms in China using machine learning. <i>Journal of Cleaner Production</i> , 2022, 362, 132303.	4.6	4
86	A new joint optimization method for design and operation of multi-reservoir system considering the conditional value-at-risk. <i>Journal of Hydrology</i> , 2022, 610, 127946.	2.3	4
87	Research on path planning of family nursing robot based on robot operating system. , 2016, , .		3
88	Detecting and attributing drought-induced changes in catchment hydrological behaviours in a southeastern Australia catchment using a data assimilation method. <i>Hydrological Processes</i> , 2021, 35, e14289.	1.1	3
89	Land surface models significantly underestimate the impact of land-use changes on global evapotranspiration. <i>Environmental Research Letters</i> , 2021, 16, 124047.	2.2	3
90	Extracting operation behaviors of cascade reservoirs using physics-guided long-short term memory networks. <i>Journal of Hydrology: Regional Studies</i> , 2022, 40, 101034.	1.0	3

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91	The Dependence of Ecosystem Water Use Partitioning on Vegetation Productivity at the Inter-Annual Time Scale. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2020JD033756.	1.2	1
92	Identification of Soil Moisture-Precipitation Feedback Based on Temporal Information Partitioning Networks. Journal of the American Water Resources Association, 0, , .	1.0	1