Guoyong Leng

List of Publications by Year in descending order

Source: https://exaly.com/author-pdf/643566/publications.pdf

Version: 2024-02-01

140 papers	6,542 citations	57758 44 h-index	76900 74 g-index
145 all docs	145 docs citations	145 times ranked	5716 citing authors

#	Article	IF	Citations
1	Crop yield sensitivity of global major agricultural countries to droughts and the projected changes in the future. Science of the Total Environment, 2019, 654, 811-821.	8.0	387
2	Climate change impacts on meteorological, agricultural and hydrological droughts in China. Global and Planetary Change, 2015, 126, 23-34.	3.5	356
3	The propagation from meteorological to hydrological drought and its potential influence factors. Journal of Hydrology, 2017, 547, 184-195.	5.4	296
4	Comparison of urbanization and climate change impacts on urban flood volumes: Importance of urban planning and drainage adaptation. Science of the Total Environment, 2019, 658, 24-33.	8.0	229
5	Projected Impacts of Climate Change on Drought Patterns Over East Africa. Earth's Future, 2020, 8, e2020EF001502.	6.3	164
6	Crossâ€scale intercomparison of climate change impacts simulated by regional and global hydrological models in eleven large river basins. Climatic Change, 2017, 141, 561-576.	3.6	137
7	Probabilistic assessment of remote sensing-based terrestrial vegetation vulnerability to drought stress of the Loess Plateau in China. Remote Sensing of Environment, 2019, 232, 111290.	11.0	133
8	Propagation thresholds of meteorological drought for triggering hydrological drought at various levels. Science of the Total Environment, 2020, 712, 136502.	8.0	131
9	Modeling the Effects of Groundwater-Fed Irrigation on Terrestrial Hydrology over the Conterminous United States. Journal of Hydrometeorology, 2014, 15, 957-972.	1.9	116
10	Assessing agricultural drought risk and its dynamic evolution characteristics. Agricultural Water Management, 2020, 231, 106003.	5.6	116
11	Integrated index for drought assessment based on variable fuzzy set theory: A case study in the Yellow River basin, China. Journal of Hydrology, 2015, 527, 608-618.	5.4	115
12	Quantitative contribution of climate change and human activities to vegetation cover variations based on GA-SVM model. Journal of Hydrology, 2020, 584, 124687.	5.4	114
13	Linkages between hydrological drought, climate indices and human activities: a case study in the Columbia River basin. International Journal of Climatology, 2016, 36, 280-290.	3.5	108
14	Reconstruction of global gridded monthly sectoral water withdrawals for 1971â€“2010 and analysis of their spatiotemporal patterns. Hydrology and Earth System Sciences, 2018, 22, 2117-2133.	4.9	106
15	The critical role of the routing scheme in simulating peak river discharge in global hydrological models. Environmental Research Letters, 2017, 12, 075003.	5.2	105
16	Modeling the effects of irrigation on land surface fluxes and states over the conterminous United States: Sensitivity to input data and model parameters. Journal of Geophysical Research D: Atmospheres, 2013, 118, 9789-9803.	3.3	103
17	Propagation dynamics from meteorological to groundwater drought and their possible influence factors. Journal of Hydrology, 2019, 578, 124102.	5.4	101
18	The response of agricultural drought to meteorological drought and the influencing factors: A case study in the Wei River Basin, China. Agricultural Water Management, 2015, 159, 45-54.	5.6	98

#	Article	IF	Citations
19	Drought structure based on a nonparametric multivariate standardized drought index across the Yellow River basin, China. Journal of Hydrology, 2015, 530, 127-136.	5.4	95
20	Crop yield response to climate change varies with crop spatial distribution pattern. Scientific Reports, 2017, 7, 1463.	3.3	95
21	Time-lagged response of vegetation dynamics to climatic and teleconnection factors. Catena, 2020, 189, 104474.	5.0	90
22	Spatial-temporal changes of rainfall erosivity in the loess plateau, China: Changing patterns, causes and implications. Catena, 2018, 166, 279-289.	5.0	89
23	Spatio-temporal characteristics of drought structure across China using an integrated drought index. Agricultural Water Management, 2019, 218, 182-192.	5.6	89
24	A modeling study of irrigation effects on global surface water and groundwater resources under a changing climate. Journal of Advances in Modeling Earth Systems, 2015, 7, 1285-1304.	3.8	88
25	Identification of the non-stationarity of extreme precipitation events and correlations with large-scale ocean-atmospheric circulation patterns: A case study in the Wei River Basin, China. Journal of Hydrology, 2017, 548, 184-195.	5.4	85
26	Worldwide evaluation of mean and extreme runoff from six global-scale hydrological models that account for human impacts. Environmental Research Letters, 2018, 13, 065015.	5.2	85
27	Predicting spatial and temporal variability in crop yields: an inter-comparison of machine learning, regression and process-based models. Environmental Research Letters, 2020, 15, 044027.	5.2	79
28	Spatial-temporal dynamics of agricultural drought in the Loess Plateau under a changing environment: Characteristics and potential influencing factors. Agricultural Water Management, 2021, 244, 106540.	5.6	78
29	A nonparametric multivariate standardized drought index for characterizing socioeconomic drought: A case study in the Heihe River Basin. Journal of Hydrology, 2016, 542, 875-883.	5.4	72
30	Significant impacts of irrigation water sources and methods on modeling irrigation effects in the <scp>ACME</scp><scp>L</scp>and Model. Journal of Advances in Modeling Earth Systems, 2017, 9, 1665-1683.	3.8	70
31	Impacts of future climate change on urban flood volumes in Hohhot in northern China: benefits of climate change mitigation and adaptations. Hydrology and Earth System Sciences, 2018, 22, 305-316.	4.9	69
32	A Case Study on a Combination NDVI Forecasting Model Based on the Entropy Weight Method. Water Resources Management, 2017, 31, 3667-3681.	3.9	68
33	Regional contribution to variability and trends of global gross primary productivity. Environmental Research Letters, 2017, 12, 105005.	5.2	65
34	Spatial-temporal changes in vegetation cover in a typical semi-humid and semi-arid region in China: Changing patterns, causes and implications. Ecological Indicators, 2019, 98, 462-475.	6.3	62
35	Effects of vegetation restoration on groundwater drought in the Loess Plateau, China. Journal of Hydrology, 2020, 591, 125566.	5.4	61
36	A nature-based reservoir optimization model for resolving the conflict in human water demand and riverine ecosystem protection. Journal of Cleaner Production, 2019, 231, 406-418.	9.3	58

#	Article	IF	Citations
37	NDVI-Based Vegetation Change in Inner Mongolia from 1982 to 2006 and Its Relationship to Climate at the Biome Scale. Advances in Meteorology, 2014, 2014, 1-12.	1.6	56
38	The Role of Climate Covariability on Crop Yields in the Conterminous United States. Scientific Reports, 2016, 6, 33160.	3.3	53
39	Airborne observations reveal elevational gradient in tropical forest isoprene emissions. Nature Communications, 2017, 8, 15541.	12.8	53
40	Soil Moisture Drought Monitoring and Forecasting Using Satellite and Climate Model Data over Southwestern China. Journal of Hydrometeorology, 2017, 18, 5-23.	1.9	51
41	Assessing GRACE-based terrestrial water storage anomalies dynamics at multi-timescales and their correlations with teleconnection factors in Yunnan Province, China. Journal of Hydrology, 2019, 574, 836-850.	5.4	51
42	Assessing the reliability, resilience and vulnerability of water supply system under multiple uncertain sources. Journal of Cleaner Production, 2020, 252, 119806.	9.3	50
43	Bivariate probabilistic quantification of drought impacts on terrestrial vegetation dynamics in mainland China. Journal of Hydrology, 2019, 577, 123980.	5.4	49
44	Assessing socio-economic drought evolution characteristics and their possible meteorological driving force. Geomatics, Natural Hazards and Risk, 2019, 10, 1084-1101.	4.3	49
45	Identifying drought propagation by simultaneously considering linear and nonlinear dependence in the Wei River basin of the Loess Plateau, China. Journal of Hydrology, 2020, 591, 125287.	5.4	46
46	European Hot Summers Associated with a Reduction of Cloudiness. Journal of Climate, 2012, 25, 3637-3644.	3.2	45
47	Emergence of new hydrologic regimes of surface water resources in the conterminous United States under future warming. Environmental Research Letters, 2016, 11, 114003.	5.2	43
48	Identification of the Non-stationarity of Floods: Changing Patterns, Causes, and Implications. Water Resources Management, 2019, 33, 939-953.	3.9	42
49	Understanding each other's models: an introduction and a standard representation of 16 global water models to support intercomparison, improvement, and communication. Geoscientific Model Development, 2021, 14, 3843-3878.	3.6	41
50	Variations in annual water-energy balance and their correlations with vegetation and soil moisture dynamics: A case study in the Wei River Basin, China. Journal of Hydrology, 2017, 546, 515-525.	5.4	40
51	Recent changes in county-level corn yield variability in the United States from observations and crop models. Science of the Total Environment, 2017, 607-608, 683-690.	8.0	39
52	Evaluating the performance of conservation practices under climate change scenarios in the Miyun Reservoir Watershed, China. Ecological Engineering, 2020, 143, 105700.	3.6	39
53	Evapotranspiration simulations in ISIMIP2aâ€"Evaluation of spatio-temporal characteristics with a comprehensive ensemble of independent datasets. Environmental Research Letters, 2018, 13, 075001.	5.2	38
54	Copula-Based Abrupt Variations Detection in the Relationship of Seasonal Vegetation-Climate in the Jing River Basin, China. Remote Sensing, 2019, 11, 1628.	4.0	37

#	Article	IF	Citations
55	Impacts of climate change on watershed systems and potential adaptation through BMPs in a drinking water source area. Journal of Hydrology, 2019, 573, 123-135.	5.4	37
56	Divergent predictions of carbon storage between two global land models: attribution of the causes through traceability analysis. Earth System Dynamics, 2016, 7, 649-658.	7.1	36
57	GRACE-Based Terrestrial Water Storage in Northwest China: Changes and Causes. Remote Sensing, 2018, 10, 1163.	4.0	36
58	Changes in Cloud Cover, Precipitation, and Summer Temperature in North America from 1982 to 2009. Journal of Climate, 2013, 26, 1733-1744.	3.2	33
59	Regionalization of subsurface stormflow parameters of hydrologic models: Derivation from regional analysis of streamflow recession curves. Journal of Hydrology, 2014, 519, 670-682.	5.4	33
60	Quantifying the Relative Contribution of Climate and Human Impacts on Runoff Change Based on the Budyko Hypothesis and SVM Model. Water Resources Management, 2016, 30, 2377-2390.	3.9	32
61	Comparing the Performance of Three Land Models in Global C Cycle Simulations: A Detailed Structural Analysis. Land Degradation and Development, 2017, 28, 524-533.	3.9	32
62	Dry and wet combination dynamics and their possible driving forces in a changing environment. Journal of Hydrology, 2020, 589, 125211.	5.4	32
63	Vegetation vulnerability and resistance to hydrometeorological stresses in water- and energy-limited watersheds based on a Bayesian framework. Catena, 2021, 196, 104879.	5.0	32
64	A comparative analysis of the impacts of climate change and irrigation on land surface and subsurface hydrology in the North China Plain. Regional Environmental Change, 2015, 15, 251-263.	2.9	31
65	Damped summer warming accompanied with cloud cover increase over Eurasia from 1982 to 2009. Environmental Research Letters, 2012, 7, 014004.	5.2	30
66	Propagation characteristics and mechanism from meteorological to agricultural drought in various seasons. Journal of Hydrology, 2022, 610, 127897.	5.4	30
67	Evidence for a weakening strength of temperature-corn yield relation in the United States during 1980â€“2010. Science of the Total Environment, 2017, 605-606, 551-558.	8.0	29
68	Modeling the Impacts of Future Climate Change on Irrigation over China: Sensitivity to Adjusted Projections. Journal of Hydrometeorology, 2014, 15, 2085-2103.	1.9	28
69	Predictability of state-level flood damage in the conterminous United States: the role of hazard, exposure and vulnerability. Scientific Reports, 2017, 7, 5354.	3.3	28
70	Keeping global warming within 1.5â€Â°C reduces future risk of yield loss in the United States: A probabilistic modeling approach. Science of the Total Environment, 2018, 644, 52-59.	8.0	28
71	Simulating countyâ€level crop yields in the <scp>C</scp>onterminous <scp>U</scp>nited <scp>S</scp>tates using the <scp>C</scp>ommunity <scp>L</scp>and <scp>M</scp>odel: <scp>T</scp>he effects of optimizing irrigation and fertilization. Journal of Advances in Modeling Earth Systems, 2016, 8, 1912-1931.	3.8	26
72	Projected changes in mean and interannual variability of surface water over continental China. Science China Earth Sciences, 2015, 58, 739-754.	5.2	25

#	Article	IF	Citations
73	The asymmetric impact of global warming on US drought types and distributions in a large ensemble of 97 hydro-climatic simulations. Scientific Reports, 2017, 7, 5891.	3.3	25
74	Enhancing SWAT simulation of forest ecosystems for water resource assessment: A case study in the St. Croix River basin. Ecological Engineering, 2018, 120, 422-431.	3.6	25
75	Assessing the effects of climate change and human activities on runoff variations from a seasonal perspective. Stochastic Environmental Research and Risk Assessment, 2020, 34, 575-592.	4.0	25
76	Assessments of joint hydrological extreme risks in a warming climate in China. International Journal of Climatology, 2016, 36, 1632-1642.	3.5	24
77	Various maize yield losses and their dynamics triggered by drought thresholds based on Copula-Bayesian conditional probabilities. Agricultural Water Management, 2022, 261, 107391.	5.6	24
78	Extreme hot summers in China in the CMIP5 climate models. Climatic Change, 2016, 135, 669-681.	3.6	23
79	Spatial-temporal changes of maximum and minimum temperatures in the Wei River Basin, China: Changing patterns, causes and implications. Atmospheric Research, 2018, 204, 1-11.	4.1	23
80	Elucidating the effects of mega reservoir on watershed drought tolerance based on a drought propagation analytical method. Journal of Hydrology, 2021, 598, 125738.	5.4	23
81	Sensitivity of Regulated Flow Regimes to Climate Change in the Western United States. Journal of Hydrometeorology, 2018, 19, 499-515.	1.9	22
82	The Potential Utility of Satellite Soil Moisture Retrievals for Detecting Irrigation Patterns in China. Water (Switzerland), 2018, 10, 1505.	2.7	22
83	AÂhydrological emulator for global applications â€“ HE v1.0.0. Geoscientific Model Development, 2018, 11, 1077-1092.	3.6	22
84	Nonlinearity of Runoff Response to Global Mean Temperature Change Over Major Global River Basins. Geophysical Research Letters, 2018, 45, 6109-6116.	4.0	22
85	Can we calculate drought riskâ€¦ and do we need to?. Wiley Interdisciplinary Reviews: Water, 2019, 6, e1349.	6.5	22
86	Defining the robust operating rule for multi-purpose water reservoirs under deep uncertainties. Journal of Hydrology, 2019, 578, 124134.	5.4	22
87	Assessment of drought evolution characteristics based on a nonparametric and trivariate integrated drought index. Journal of Hydrology, 2019, 579, 124230.	5.4	21
88	Spatioâ€temporal changes in precipitation, temperature and their possibly changing relationship: a case study in the Wei River Basin, China. International Journal of Climatology, 2016, 36, 1160-1169.	3.5	20
89	Propagation dynamics and causes of hydrological drought in response to meteorological drought at seasonal timescales. Hydrology Research, 2022, 53, 193-205.	2.7	20
90	Maize yield loss risk under droughts in observations and crop models in the United States. Environmental Research Letters, 2021, 16, 024016.	5.2	19

#	Article	IF	Citations
91	Detecting the Dominant Cause of Streamflow Decline in the Loess Plateau of China Based onthe Latest Budyko Equation. Water (Switzerland), 2018, 10, 1277.	2.7	18
92	Climate change will pose challenges to water quality management in the st. Croix River basin. Environmental Pollution, 2019, 251, 302-311.	7.5	18
93	Watershed water-energy balance dynamics and their association with diverse influencing factors at multiple time scales. Science of the Total Environment, 2020, 711, 135189.	8.0	17
94	Altered drought propagation under the influence of reservoir regulation. Journal of Hydrology, 2021, 603, 127049.	5.4	17
95	Assessing the feedback relationship between vegetation and soil moisture over the Loess Plateau, China. Ecological Indicators, 2022, 134, 108493.	6.3	17
96	Assessing the non-stationarity of low flows and their scale-dependent relationships with climate and human forcing. Science of the Total Environment, 2019, 687, 244-256.	8.0	16
97	Global Irrigation Characteristics and Effects Simulated by Fully Coupled Land Surface, River, and Water Management Models in E3SM. Journal of Advances in Modeling Earth Systems, 2020, 12, e2020MS002069.	3.8	16
98	Copula-based non-stationarity detection of the precipitation-temperature dependency structure dynamics and possible driving mechanism. Atmospheric Research, 2021, 249, 105280.	4.1	16
99	Synergistic effect of drought and rainfall events of different patterns on watershed systems. Scientific Reports, 2021, 11, 18957.	3.3	16
100	Copula-based identification of the non-stationarity of the relation between runoff and sediment load. International Journal of Sediment Research, 2017, 32, 221-230.	3.5	15
101	Recent changes in county-level maize production in the United States: Spatial-temporal patterns, climatic drivers and the implications for crop modelling. Science of the Total Environment, 2019, 686, 819-827.	8.0	15
102	Recent Changes in the Occurrences and Damages of Floods and Droughts in the United States. Water (Switzerland), 2018, 10, 1109.	2.7	14
103	The influence of groundwater representation on hydrological simulation and its assessment using satelliteâ€based water storage variation. Hydrological Processes, 2019, 33, 1218-1230.	2.6	14
104	Uncertainty in Assessing Temperature Impact on U.S. Maize Yield Under Global Warming: The Role of Compounding Precipitation Effect. Journal of Geophysical Research D: Atmospheres, 2019, 124, 6238-6246.	3.3	14
105	A Hybrid Index for Characterizing Drought Based on a Nonparametric Kernel Estimator. Journal of Applied Meteorology and Climatology, 2016, 55, 1377-1389.	1.5	13
106	Spatialâ€“temporal variation of precipitation concentration and structure in the Wei River Basin, China. Theoretical and Applied Climatology, 2016, 125, 67-77.	2.8	12
107	The asymmetric impact of abundant preceding rainfall on heat stress in low latitudes. Environmental Research Letters, 2019, 14, 044010.	5.2	11
108	Improving the SWAT forest module for enhancing water resource projections: A case study in the <scp>St. Croix River</scp> basin. Hydrological Processes, 2019, 33, 864-875.	2.6	11

#	Article	IF	Citations
109	Satellite-Based Operational Real-Time Drought Monitoring in the Transboundary Lancangâ€“Mekong River Basin. Remote Sensing, 2020, 12, 376.	4.0	11
110	Formal institutions' role in managing catastrophic risks in agriculture in Pakistan: Implications for effective risk governance. International Journal of Disaster Risk Reduction, 2021, 65, 102644.	3.9	11
111	A Set of Satellite-Based Near Real-Time Meteorological Drought Monitoring Data over China. Remote Sensing, 2019, 11, 453.	4.0	10
112	Where is the Planetary Boundary for freshwater being exceeded because of livestock farming?. Science of the Total Environment, 2021, 760, 144035.	8.0	10
113	Identifying the paths and contributions of climate impacts on the variation in land surface albedo over the Arctic. Agricultural and Forest Meteorology, 2022, 313, 108772.	4.8	10
114	Simulation and Assessment of Projected Climate Change Impacts on Urban Flood Events: Insights From Flooding Characteristic Metrics. Journal of Geophysical Research D: Atmospheres, 2022, 127, .	3.3	10
115	Variations in precipitation and runoff from a multivariate perspective in the Wei River Basin, China. Quaternary International, 2017, 440, 30-39.	1.5	9
116	Spatialâ€“temporal changes in potential evaporation patterns based on the Cloud model and their possible causes. Stochastic Environmental Research and Risk Assessment, 2017, 31, 2147-2158.	4.0	8
117	Environmental Flow Assessment Considering Inter- and Intra-Annual Streamflow Variability under the Context of Non-Stationarity. Water (Switzerland), 2018, 10, 1737.	2.7	8
118	Possible NPP changes and risky ecosystem region identification in China during the 21st century based on BCC-CSM2. Journal of Chinese Geography, 2020, 30, 1219-1232.	3.9	8
119	Modelling global impacts of climate variability and trend on maize yield during 1980â€“2010. International Journal of Climatology, 2021, 41, E1583.	3.5	7
120	Bayesian-based time-varying multivariate drought risk and its dynamics in a changing environment. Catena, 2021, 204, 105429.	5.0	7
121	The Role of Hazard and Vulnerability in Modulating Economic Damages of Inland Floods in the United States Using a Survey-Based Dataset. Sustainability, 2019, 11, 3754.	3.2	6
122	Multivariable flood risk and its dynamics considering project reasonable service life in a changing environment. Journal of Hydrology, 2020, 590, 125524.	5.4	6
123	Identifying complex networks and operating scenarios for cascade water reservoirs for mitigating drought and flood impacts. Journal of Hydrology, 2021, 594, 125946.	5.4	6
124	Attribution of the spatial heterogeneity of Arctic surface albedo feedback to the dynamics of vegetation, snow and soil properties and their interactions. Environmental Research Letters, 2022, 17, 014036.	5.2	6
125	Observational constraint of process crop models suggests higher risks for global maize yield under climate change. Environmental Research Letters, 2022, 17, 074023.	5.2	6
126	Identification of the interactions and feedbacks among watershed water-energy balance dynamics, hydro-meteorological factors, and underlying surface characteristics. Stochastic Environmental Research and Risk Assessment, 2021, 35, 69-81.	4.0	5

#	Article	IF	Citations
127	Disentangling the separate and confounding effects of temperature and precipitation on global maize yield using machine learning, statistical and process crop models. Environmental Research Letters, 2022, 17, 044036.	5.2	5
128	Multi-model evaluation of catchment- and global-scale hydrological model simulations of drought characteristics across eight large river catchments. Advances in Water Resources, 2022, 165, 104212.	3.8	5
129	Influences of leaf area index and albedo on estimating energy fluxes with HOLAPS framework. Journal of Hydrology, 2020, 580, 124245.	5.4	4
130	On the Dominant Factor Controlling Seasonal Hydrological Forecast Skill in China. Water (Switzerland), 2017, 9, 902.	2.7	2
131	Recent changes in vulnerability and responses of economic and human systems to major extreme weather hazards in the United States. Geomatics, Natural Hazards and Risk, 2020, 11, 357-376.	4.3	2
132	Varying response of vegetation to sea ice dynamics over the Arctic. Science of the Total Environment, 2021, 799, 149378.	8.0	2
133	Spatiotemporal Changes in Extreme Wet and Dry Conditions and Linkages with Planetary Oscillations. Journal of Coastal Research, 2018, 84, 134-143.	0.3	1
134	Time-scale dependent mechanism of atmospheric CO2 concentration drivers of watershed water-energy balance. Science of the Total Environment, 2021, 754, 142132.	8.0	1
135	Compounding precipitation effect in modulating maize yield response to global warming. International Journal of Climatology, 0, , .	3.5	1
136	Contribution of Hydrological Model Calibration Uncertainty to Future Hydrological Projections over Various Temporal Scales. , 2022, , 420-444.		0
137	A Review of the Effects of Climate Extremes on Agriculture Production. , 2022, , 198-219.		0
138	Impact of Inter-Basin Water Transfer on Water Scarcity in Water-Receiving Area under Global Warming. , 2022, , 240-266.		0
139	Spatial Drought Patterns in East Africa. , 2022, , 47-64.		0
140	Future Water Scarcity over the Yellow River Basin and the Effects of Adaptive Measures. , 2022, , 445-464.		0