

Ge Sun

List of Publications by Year in descending order

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117
papers

6,580
citations

43973

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times ranked

7061
citing authors

#	ARTICLE	IF	CITATIONS
1	Spatial variability in tree-ring carbon isotope discrimination in response to local drought across the entire loblolly pine natural range. <i>Tree Physiology</i> , 2022, 42, 44-58.	1.4	1
2	Urbanization Aggravates Effects of Global Warming on Local Atmospheric Drying. <i>Geophysical Research Letters</i> , 2022, 49, .	1.5	22
3	Climate Variability Masked Greening Effects on Water Yield in the Yangtze River Basin During 2001–2018. <i>Water Resources Research</i> , 2022, 58, .	1.7	22
4	Detecting Coastal Wetland Degradation by Combining Remote Sensing and Hydrologic Modeling. <i>Forests</i> , 2022, 13, 411.	0.9	6
5	Climate change challenges efficiency of inter-basin water transfers in alleviating water stress. <i>Environmental Research Letters</i> , 2022, 17, 044050.	2.2	10
6	Inter-Basin Transfers Extend the Benefits of Water From Forests to Population Centers Across the Conterminous U.S.. <i>Water Resources Research</i> , 2022, 58, .	1.7	8
7	Impacts of Hurricane Michael on Watershed Hydrology: A Case Study in the Southeastern United States. <i>Forests</i> , 2022, 13, 904.	0.9	0
8	Estimates of Precipitation IDF Curves and Design Discharges for Road-Crossing Drainage Structures: Case Study in Four Small Forested Watersheds in the Southeastern US. <i>Journal of Hydrologic Engineering - ASCE</i> , 2021, 26, .	0.8	9
9	Heterotrophic Respiration and the Divergence of Productivity and Carbon Sequestration. <i>Geophysical Research Letters</i> , 2021, 48, e2020GL092366.	1.5	4
10	Effects of land-use change and drought on decadal evapotranspiration and water balance of natural and managed forested wetlands along the southeastern US lower coastal plain. <i>Agricultural and Forest Meteorology</i> , 2021, 303, 108381.	1.9	24
11	Forested lands dominate drinking water supply in the conterminous United States. <i>Environmental Research Letters</i> , 2021, 16, 084008.	2.2	34
12	Ecosystem Productivity and Evapotranspiration Are Tightly Coupled in Loblolly Pine (<i>Pinus taeda</i> L.) Plantations along the Coastal Plain of the Southeastern U.S.. <i>Forests</i> , 2021, 12, 1123.	0.9	15
13	Variability of tree transpiration across three zones in a southeastern U.S. Piedmont watershed. <i>Hydrological Processes</i> , 2021, 35, e14389.	1.1	1
14	Vegetation greening weakened the capacity of water supply to China's South-to-North Water Diversion Project. <i>Hydrology and Earth System Sciences</i> , 2021, 25, 5623-5640.	1.9	17
15	Investigating impacts of drought and disturbance on evapotranspiration over a forested landscape in North Carolina, USA using high spatiotemporal resolution remotely sensed data. <i>Remote Sensing of Environment</i> , 2020, 238, 111018.	4.6	41
16	Trade-off between watershed water yield and ecosystem productivity along elevation gradients on a complex terrain in southwestern China. <i>Journal of Hydrology</i> , 2020, 590, 125449.	2.3	22
17	Long-term carbon flux and balance in managed and natural coastal forested wetlands of the Southeastern USA. <i>Agricultural and Forest Meteorology</i> , 2020, 288-289, 108022.	1.9	24
18	Water balance of municipal wastewater irrigation in a coastal forested watershed. <i>Ecohydrology</i> , 2020, 13, e2227.	1.1	1

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19	Effects of Urbanization on Watershed Evapotranspiration and Its Components in Southern China. <i>Water</i> (Switzerland), 2020, 12, 645.	1.2	34
20	Biophysical controls on nocturnal sap flow in plantation forests in a semi-arid region of northern China. <i>Agricultural and Forest Meteorology</i> , 2020, 284, 107904.	1.9	36
21	Spatiotemporal patterns and drivers of soil contamination with heavy metals during an intensive urbanization period (1989–2018) in southern China. <i>Environmental Pollution</i> , 2020, 260, 114075.	3.7	81
22	Modeling the impacts of urbanization on watershed-scale gross primary productivity and tradeoffs with water yield across the conterminous United States. <i>Journal of Hydrology</i> , 2020, 583, 124581.	2.3	27
23	Managing Forests and Water for People under a Changing Environment. <i>Forests</i> , 2020, 11, 331.	0.9	3
24	Combined effects of urbanization and climate change on watershed evapotranspiration at multiple spatial scales. <i>Journal of Hydrology</i> , 2020, 587, 124869.	2.3	22
25	Impacts of Urbanization on Watershed Water Balances Across the Conterminous United States. <i>Water Resources Research</i> , 2020, 56, e2019WR026574.	1.7	53
26	No Proportional Increase of Terrestrial Gross Carbon Sequestration From the Greening Earth. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2019, 124, 2540-2553.	1.3	51
27	Potential impacts of climate change on vegetation dynamics and ecosystem function in a mountain watershed on the Qinghai-Tibet Plateau. <i>Climatic Change</i> , 2019, 156, 31-50.	1.7	24
28	Disentangling the Effects of Temperature, Moisture, and Substrate Availability on Soil CO ₂ Efflux. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2019, 124, 2060-2075.	1.3	25
29	Water Yield Responses to Gradual Changes in Forest Structure and Species Composition in a Subboreal Watershed in Northeastern China. <i>Forests</i> , 2019, 10, 211.	0.9	13
30	Soil physiochemical properties and landscape patterns control trace metal contamination at the urban-rural interface in southern China. <i>Environmental Pollution</i> , 2019, 250, 537-545.	3.7	61
31	Data on projections of surface water withdrawal, consumption, and availability in the conterminous United States through the 21st century. <i>Data in Brief</i> , 2019, 23, 103786.	0.5	0
32	Using $\delta^{13}\text{C}$ and $\delta^{18}\text{O}$ to analyze loblolly pine (<i>Pinus taeda</i> L.) response to experimental drought and fertilization. <i>Tree Physiology</i> , 2019, 39, 1984-1994.	1.4	6
33	Climatic Controls on Watershed Reference Evapotranspiration Varied during 1961–2012 in Southern China. <i>Journal of the American Water Resources Association</i> , 2019, 55, 189-208.	1.0	17
34	Understanding the role of regional water connectivity in mitigating climate change impacts on surface water supply stress in the United States. <i>Journal of Hydrology</i> , 2019, 570, 80-95.	2.3	35
35	Coastal wetland resilience to climate variability: A hydrologic perspective. <i>Journal of Hydrology</i> , 2019, 568, 275-284.	2.3	44
36	Parallelization of a distributed ecohydrological model. <i>Environmental Modelling and Software</i> , 2018, 101, 51-63.	1.9	4

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37	Implications of Upstream Flow Availability for Watershed Surface Water Supply across the Conterminous United States. <i>Journal of the American Water Resources Association</i> , 2018, 54, 694-707.	1.0	20
38	Burned forests impact water supplies. <i>Nature Communications</i> , 2018, 9, 1307.	5.8	116
39	Spatial Patterns of Development Drive Water Use. <i>Water Resources Research</i> , 2018, 54, 1633-1649.	1.7	21
40	The sensitivity of ecosystem service models to choices of input data and spatial resolution. <i>Applied Geography</i> , 2018, 93, 25-36.	1.7	51
41	Using regional scale flow-ecology modeling to identify catchments where fish assemblages are most vulnerable to changes in water availability. <i>Freshwater Biology</i> , 2018, 63, 928-945.	1.2	21
42	Ecohydrological Processes Explain Urban Dry Island Effects in a Wet Region, Southern China. <i>Water Resources Research</i> , 2018, 54, 6757-6771.	1.7	84
43	Quantifying the effects of overgrazing on mountainous watershed vegetation dynamics under a changing climate. <i>Science of the Total Environment</i> , 2018, 639, 1408-1420.	3.9	53
44	Drought and thinning have limited impacts on evapotranspiration in a managed pine plantation on the southeastern United States coastal plain. <i>Agricultural and Forest Meteorology</i> , 2018, 262, 14-23.	1.9	34
45	Dependence of 3-month Standardized Precipitation-Evapotranspiration Index dryness/wetness sensitivity on climatological precipitation over southwest China. <i>International Journal of Climatology</i> , 2018, 38, 4568-4578.	1.5	10
46	Understanding coastal wetland hydrology with a new regional-scale, process-based hydrological model. <i>Hydrological Processes</i> , 2018, 32, 3158-3173.	1.1	38
47	Reanalysis of global terrestrial vegetation trends from MODIS products: Browning or greening?. <i>Remote Sensing of Environment</i> , 2017, 191, 145-155.	4.6	258
48	Combined effects of climate and land management on watershed vegetation dynamics in an arid environment. <i>Science of the Total Environment</i> , 2017, 589, 73-88.	3.9	31
49	Regional patterns of postwildfire streamflow response in the Western United States: The importance of scale-specific connectivity. <i>Hydrological Processes</i> , 2017, 31, 2582-2598.	1.1	47
50	Response of evapotranspiration to changes in land use and land cover and climate in China during 2001-2013. <i>Science of the Total Environment</i> , 2017, 596-597, 256-265.	3.9	152
51	Hydrology and microtopography control carbon dynamics in wetlands: Implications in partitioning ecosystem respiration in a coastal plain forested wetland. <i>Agricultural and Forest Meteorology</i> , 2017, 247, 343-355.	1.9	48
52	Impact of air pollution induced climate change on water availability and ecosystem productivity in the conterminous United States. <i>Climatic Change</i> , 2017, 140, 259-272.	1.7	26
53	On the coupling between precipitation and potential evapotranspiration: contributions to decadal drought anomalies in the Southwest China. <i>Climate Dynamics</i> , 2017, 48, 3779-3797.	1.7	52
54	Assessment of wildland fire impacts on watershed annual water yield: Analytical framework and case studies in the United States. <i>Ecohydrology</i> , 2017, 10, e1794.	1.1	32

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55	Daily Landsat-scale evapotranspiration estimation over a forested landscape in North Carolina, USA, using multi-satellite data fusion. <i>Hydrology and Earth System Sciences</i> , 2017, 21, 1017-1037.	1.9	77
56	Ecohydrological processes and ecosystem services in the Anthropocene: a review. <i>Ecological Processes</i> , 2017, 6, .	1.6	67
57	Environmental controls on seasonal ecosystem evapotranspiration/potential evapotranspiration ratio as determined by the global eddy flux measurements. <i>Hydrology and Earth System Sciences</i> , 2017, 21, 311-322.	1.9	40
58	Future shift of the relative roles of precipitation and temperature in controlling annual runoff in the conterminous United States. <i>Hydrology and Earth System Sciences</i> , 2017, 21, 5517-5529.	1.9	18
59	Projecting water yield and ecosystem productivity across the United States by linking an ecohydrological model to WRF dynamically downscaled climate data. <i>Hydrology and Earth System Sciences</i> , 2016, 20, 935-952.	1.9	23
60	Forest Management Challenges for Sustaining Water Resources in the Anthropocene. <i>Forests</i> , 2016, 7, 68.	0.9	36
61	Detection of the Coupling between Vegetation Leaf Area and Climate in a Multifunctional Watershed, Northwestern China. <i>Remote Sensing</i> , 2016, 8, 1032.	1.8	11
62	Development of a coupled carbon and water model for estimating global gross primary productivity and evapotranspiration based on eddy flux and remote sensing data. <i>Agricultural and Forest Meteorology</i> , 2016, 223, 116-131.	1.9	85
63	Contrasting effects of urbanization and agriculture on surface temperature in eastern China. <i>Journal of Geophysical Research D: Atmospheres</i> , 2016, 121, 9597-9606.	1.2	49
64	Divergence of ecosystem services in U.S. National Forests and Grasslands under a changing climate. <i>Scientific Reports</i> , 2016, 6, 24441.	1.6	22
65	Spatiotemporal trends of urban heat island effect along the urban development intensity gradient in China. <i>Science of the Total Environment</i> , 2016, 544, 617-626.	3.9	147
66	Ecohydrological implications of drought for forests in the United States. <i>Forest Ecology and Management</i> , 2016, 380, 335-345.	1.4	67
67	Ten-year variability in ecosystem water use efficiency in an oak-dominated temperate forest under a warming climate. <i>Agricultural and Forest Meteorology</i> , 2016, 218-219, 209-217.	1.9	52
68	Modelling the potential role of forest thinning in maintaining water supplies under a changing climate across the conterminous United States. <i>Hydrological Processes</i> , 2015, 29, 5016-5030.	1.1	74
69	Integrated Modeling of Water Supply and Demand under Management Options and Climate Change Scenarios in Chifeng City, China. <i>Journal of the American Water Resources Association</i> , 2015, 51, 655-671.	1.0	25
70	Clearcutting upland forest alters transpiration of residual trees in the riparian buffer zone. <i>Hydrological Processes</i> , 2015, 29, 4979-4992.	1.1	15
71	Influence of basin characteristics on the effectiveness and downstream reach of interbasin water transfers: displacing a problem. <i>Environmental Research Letters</i> , 2015, 10, 124005.	2.2	34
72	Understanding moisture stress on light use efficiency across terrestrial ecosystems based on global flux and remote sensing data. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2015, 120, 2053-2066.	1.3	45

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73	Urbanization dramatically altered the water balances of a paddy field-dominated basin in southern China. <i>Hydrology and Earth System Sciences</i> , 2015, 19, 3319-3331.	1.9	68
74	A comparison of hydrologic models for ecological flows and water availability. <i>Ecohydrology</i> , 2015, 8, 1525-1546.	1.1	62
75	Effects of forest management on productivity and carbon sequestration: A review and hypothesis. <i>Forest Ecology and Management</i> , 2015, 355, 124-140.	1.4	145
76	Drought impacts on ecosystem functions of the U.S. National Forests and Grasslands: Part I evaluation of a water and carbon balance model. <i>Forest Ecology and Management</i> , 2015, 353, 260-268.	1.4	32
77	Drought impacts on ecosystem functions of the U.S. National Forests and Grasslands: Part II assessment results and management implications. <i>Forest Ecology and Management</i> , 2015, 353, 269-279.	1.4	60
78	How well do terrestrial biosphere models simulate coarse-scale runoff in the contiguous United States?. <i>Ecological Modelling</i> , 2015, 303, 87-96.	1.2	9
79	Fertilization intensifies drought stress: Water use and stomatal conductance of <i>Pinus taeda</i> in a midrotation fertilization and throughfall reduction experiment. <i>Forest Ecology and Management</i> , 2015, 355, 72-82.	1.4	53
80	Testing DRAINMOD-Forest for predicting evapotranspiration in a mid-rotation pine plantation. <i>Forest Ecology and Management</i> , 2015, 355, 37-47.	1.4	12
81	Conversion of natural forests to managed forest plantations decreases tree resistance to prolonged droughts. <i>Forest Ecology and Management</i> , 2015, 355, 58-71.	1.4	55
82	Evapotranspiration: Challenges in Measurement and Modeling. <i>Eos</i> , 2014, 95, 256-256.	0.1	2
83	Effects of precipitation on grassland ecosystem restoration under grazing exclusion in Inner Mongolia, China. <i>Landscape Ecology</i> , 2014, 29, 1657-1673.	1.9	73
84	Data-driven diagnostics of terrestrial carbon dynamics over North America. <i>Agricultural and Forest Meteorology</i> , 2014, 197, 142-157.	1.9	88
85	Carbon fluxes, evapotranspiration, and water use efficiency of terrestrial ecosystems in China. <i>Agricultural and Forest Meteorology</i> , 2013, 182-183, 76-90.	1.9	211
86	Water Stress Projections for the Northeastern and Midwestern United States in 2060: Anthropogenic and Ecological Consequences. <i>Journal of the American Water Resources Association</i> , 2013, 49, 938-952.	1.0	23
87	The effect of water table fluctuation on soil respiration in a lower coastal plain forested wetland in the southeastern U.S.. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2013, 118, 1748-1762.	1.3	48
88	Sectoral contributions to surface water stress in the coterminous United States. <i>Environmental Research Letters</i> , 2013, 8, 035046.	2.2	78
89	Managing Forest Water Quantity and Quality under Climate Change. , 2013, , 249-306.		12
90	Determination of spatial scale of response unit for the WASSI-C eco-hydrological model—a case study on the upper Zagunao River watershed of China. <i>Chinese Journal of Plant Ecology</i> , 2013, 37, 132-141.	0.3	5

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91	Coupling simulation of water-carbon processes for catchment calibration and validation of the WaSSI-C model. Chinese Journal of Plant Ecology, 2013, 37, 492-502.	0.3	14
92	A Comparison of Three Methods to Estimate Evapotranspiration in Two Contrasting Loblolly Pine Plantations: Age-Related Changes in Water Use and Drought Sensitivity of Evapotranspiration Components. Forest Science, 2012, 58, 497-512.	0.5	68
93	Interactive influences of ozone and climate on streamflow of forested watersheds. Global Change Biology, 2012, 18, 3395-3409.	4.2	57
94	Interactive effects of nocturnal transpiration and climate change on the root hydraulic redistribution and carbon and water budgets of southern United States pine plantations. Tree Physiology, 2012, 32, 707-723.	1.4	66
95	Impacts of impervious cover, water withdrawals, and climate change on river flows in the conterminous US. Hydrology and Earth System Sciences, 2012, 16, 2839-2857.	1.9	103
96	The role of harvest residue in rotation cycle carbon balance in loblolly pine plantations. Respiration partitioning approach. Global Change Biology, 2012, 18, 3186-3201.	4.2	52
97	Upscaling key ecosystem functions across the conterminous United States by a water-centric ecosystem model. Journal of Geophysical Research, 2011, 116, .	3.3	159
98	Assessing net ecosystem carbon exchange of U.S. terrestrial ecosystems by integrating eddy covariance flux measurements and satellite observations. Agricultural and Forest Meteorology, 2011, 151, 60-69.	1.9	157
99	Modeling Potential Evapotranspiration of Two Forested Watersheds in the Southern Appalachians. Transactions of the ASABE, 2011, 54, 2067-2078.	1.1	44
100	Forest ecohydrological research in the 21st century: what are the critical needs?. Ecohydrology, 2011, 4, 146-158.	1.1	110
101	A general predictive model for estimating monthly ecosystem evapotranspiration. Ecohydrology, 2011, 4, 245-255.	1.1	195
102	Urbanization alters watershed hydrology in the Piedmont of North Carolina. Ecohydrology, 2011, 4, 256-264.	1.1	57
103	Seasonal rainfall runoff relationships in a lowland forested watershed in the southeastern USA. Hydrological Processes, 2011, 25, 2032-2045.	1.1	52
104	Hydraulic redistribution of soil water by roots affects whole stand evapotranspiration and net ecosystem carbon exchange. New Phytologist, 2010, 187, 171-183.	3.5	137
105	Response of carbon fluxes to drought in a coastal plain loblolly pine forest. Global Change Biology, 2010, 16, 272-287.	4.2	130
106	Bi-criteria evaluation of the MIKE SHE model for a forested watershed on the South Carolina coastal plain. Hydrology and Earth System Sciences, 2010, 14, 1033-1046.	1.9	54
107	Energy and water balance of two contrasting loblolly pine plantations on the lower coastal plain of North Carolina, USA. Forest Ecology and Management, 2010, 259, 1299-1310.	1.4	157
108	Decoupling the influence of leaf and root hydraulic conductances on stomatal conductance and its sensitivity to vapour pressure deficit as soil dries in a drained loblolly pine plantation. Plant, Cell and Environment, 2009, 32, 980-991.	2.8	133

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109	Sensitivity of pine flatwoods hydrology to climate change and forest management in Florida, USA. Wetlands, 2009, 29, 826-836.	0.7	40
110	Impacts of Multiple Stresses on Water Demand and Supply Across the Southeastern United States ¹ . Journal of the American Water Resources Association, 2008, 44, 1441-1457.	1.0	189
111	Estimation of net ecosystem carbon exchange for the conterminous United States by combining MODIS and AmeriFlux data. Agricultural and Forest Meteorology, 2008, 148, 1827-1847.	1.9	221
112	Regional annual water yield from forest lands and its response to potential deforestation across the southeastern United States. Journal of Hydrology, 2005, 308, 258-268.	2.3	140
113	MODELING ACTUAL EVAPOTRANSPIRATION FROM FORESTED WATERSHEDS ACROSS THE SOUTHEASTERN UNITED STATES. Journal of the American Water Resources Association, 2003, 39, 886-896.	1.0	65
114	A comparison of the watershed hydrology of coastal forested wetlands and the mountainous uplands in the Southern US. Journal of Hydrology, 2002, 263, 92-104.	2.3	131
115	Effects of timber management on the hydrology of wetland forests in the southern United States. Forest Ecology and Management, 2001, 143, 227-236.	1.4	103
116	MODELING THE HYDROLOGIC IMPACTS OF FOREST HARVESTING ON FLORIDA FLATWOODS. Journal of the American Water Resources Association, 1998, 34, 843-854.	1.0	44
117	Water Quantity and Quality at the Urban-Rural Interface. , 0, , 29-48.		31