

Xiaodong Gao

List of Publications by Year in descending order

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104
papers

3,831
citations

81900

39
h-index

155660

55
g-index

119
all docs

119
docs citations

119
times ranked

2933
citing authors

#	ARTICLE	IF	CITATIONS
1	A new solution of high-efficiency rainwater irrigation mode for water management in apple plantation: Design and application. <i>Agricultural Water Management</i> , 2022, 259, 107243.	5.6	10
2	Sloping land use affects the complexity of soil moisture and temperature changes in the loess hilly region of China. <i>PLoS ONE</i> , 2022, 17, e0262445.	2.5	1
3	Quantifying the importance of deep root water uptake for apple treesâ€™ hydrological and physiological performance in drylands. <i>Journal of Hydrology</i> , 2022, 606, 127471.	5.4	20
4	Quantification and spatially explicit driving forces of the incoordination between ecosystem service supply and social demand at a regional scale. <i>Ecological Indicators</i> , 2022, 137, 108764.	6.3	30
5	The efficiency of organic C sequestration in deep soils is enhanced by drier climates. <i>Geoderma</i> , 2022, 415, 115774.	5.1	6
6	Redesign of dryland apple orchards by intercropping the bioenergy crop canola (<i>Brassica napus</i>) Tj ETQq0 0,0 rgBT /Oerlock 10	5.6	6
7	Impacts of Interspecific Interactions on Crop Growth and Yield in Wheat (<i>Triticum aestivum</i> L.)/Maize (<i>Zea mays</i> L.) Strip Intercropping under Different Water and Nitrogen Levels. <i>Agronomy</i> , 2022, 12, 951.	3.0	4
8	Ecohydrological advantage of young apple tree-based agroforestry and its response to extreme droughts on the semiarid Loess Plateau. <i>Agricultural and Forest Meteorology</i> , 2022, 321, 108969.	4.8	9
9	Vertical variation in shallow and deep soil moisture in an apple orchard in the loess hillyâ€™gully area of north China. <i>Soil Use and Management</i> , 2021, 37, 595-606.	4.9	4
10	Impact of land management practices on water use strategy for a dryland tree plantation and subsequent responses to drought. <i>Land Degradation and Development</i> , 2021, 32, 439-452.	3.9	12
11	Measurements and modeling of hydrological responses to summer pruning in dryland apple orchards. <i>Journal of Hydrology</i> , 2021, 594, 125651.	5.4	12
12	Mulching Measures Improve Soil Moisture in Rain-Fed Jujube (<i>Ziziphus jujuba</i> Mill.) Orchards in the Loess Hilly Region of China. <i>Sustainability</i> , 2021, 13, 610.	3.2	8
13	Effect of natural factors and management practices on agricultural water use efficiency under drought: A meta-analysis of global drylands. <i>Journal of Hydrology</i> , 2021, 594, 125977.	5.4	26
14	The impact of urbanization and aging on food security in developing countries: The view from Northwest China. <i>Journal of Cleaner Production</i> , 2021, 292, 126067.	9.3	56
15	The economicâ€™environmental trade-off of growing apple trees in the drylands of China: A conceptual framework for sustainable intensification. <i>Journal of Cleaner Production</i> , 2021, 296, 126497.	9.3	28
16	Subsurface irrigation with ceramic emitters: An effective method to improve apple yield and irrigation water use efficiency in the semiarid Loess Plateau. <i>Agriculture, Ecosystems and Environment</i> , 2021, 313, 107404.	5.3	26
17	Comparison of the rootâ€™soil water relationship of two typical revegetation species along a precipitation gradient on the Loess Plateau. <i>Environmental Research Letters</i> , 2021, 16, 064054.	5.2	5
18	Impacts of land use conversion on the response of soil respiration to precipitation in drylands: A case study with four-yearlong observations. <i>Agricultural and Forest Meteorology</i> , 2021, 304-305, 108426.	4.8	5

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19	Scale effect and spatially explicit drivers of interactions between ecosystem services—A case study from the Loess Plateau. <i>Science of the Total Environment</i> , 2021, 785, 147389.	8.0	70
20	Water-use patterns of Chinese wolfberry (<i>Lycium barbarum</i> L.) on the Tibetan Plateau. <i>Agricultural Water Management</i> , 2021, 255, 107010.	5.6	11
21	Dynamics of interspecific water relationship in vertical and horizontal dimensions under a dryland apple-Brassica intercropping system: Quantifying by experiments and the 3D Hi-sAFe model. <i>Agricultural and Forest Meteorology</i> , 2021, 310, 108620.	4.8	5
22	Soil hydrothermal modeling in a dry alpine agricultural zone: The effect of soil airflow. <i>Geoderma</i> , 2021, 402, 115354.	5.1	4
23	Water Deficit Modulates the CO ₂ Fertilization Effect on Plant Gas Exchange and Leaf-Level Water Use Efficiency: A Meta-Analysis. <i>Frontiers in Plant Science</i> , 2021, 12, 775477.	3.6	6
24	Yield, yield attributes and photosynthetic physiological characteristics of dryland wheat (<i>Triticum</i>) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	5.1	33
25	Target areas for harmonizing the Grain for Green Programme in China's Loess Plateau. <i>Land Degradation and Development</i> , 2020, 31, 325-333.	3.9	37
26	Age- and climate- related water use patterns of apple trees on China's Loess Plateau. <i>Journal of Hydrology</i> , 2020, 582, 124462.	5.4	41
27	Improving/maintaining water-use efficiency and yield of wheat by deficit irrigation: A global meta-analysis. <i>Agricultural Water Management</i> , 2020, 228, 105906.	5.6	77
28	New problems of food security in Northwest China: A sustainability perspective. <i>Land Degradation and Development</i> , 2020, 31, 975-989.	3.9	28
29	Global synthesis of the impact of droughts on crops' water-use efficiency (WUE): Towards both high WUE and productivity. <i>Agricultural Systems</i> , 2020, 177, 102723.	6.1	34
30	Effect of the fodder species canola (<i>Brassica napus</i> L.) and daylily (<i>Hemerocallis fulva</i> L.) on soil physical properties and soil water content in a rainfed orchard on the semiarid Loess Plateau, China. <i>Plant and Soil</i> , 2020, 453, 209-228.	3.7	19
31	The spatial and temporal evolution of the actual evapotranspiration based on the remote sensing method in the Loess Plateau. <i>Science of the Total Environment</i> , 2020, 708, 135111.	8.0	33
32	Rainwater collection and infiltration (RWCI) systems promote deep soil water and organic carbon restoration in water-limited sloping orchards. <i>Agricultural Water Management</i> , 2020, 242, 106400.	5.6	19
33	Recovery growth and water use of intercropped maize following wheat harvest in wheat/maize relay strip intercropping. <i>Field Crops Research</i> , 2020, 256, 107924.	5.1	21
34	An In-Situ Rainwater Collection and Infiltration System to Improve Plant-Available Water and Fine Root Growth for Drought Resistance. <i>Applied Engineering in Agriculture</i> , 2020, 36, 807-814.	0.7	1
35	Coupling evapotranspiration partitioning with water migration to identify the water consumption characteristics of wheat and maize in an intercropping system. <i>Agricultural and Forest Meteorology</i> , 2020, 290, 108034.	4.8	34
36	Seasonal effects of intercropping on tree water use strategies in semiarid plantations: Evidence from natural and labelling stable isotopes. <i>Plant and Soil</i> , 2020, 453, 229-243.	3.7	18

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37	Drought responses of profile plant-available water and fine-root distributions in apple (<i>Malus pumila</i>) Tj ETQq1 1 0.784314 rgBT /Overbo 137739.	8.0	41
38	Impact of conservation practices on soil hydrothermal properties and crop water use efficiency in a dry agricultural region of the tibetan plateau. <i>Soil and Tillage Research</i> , 2020, 200, 104619.	5.6	20
39	Sloping Land Use Affects Soil Moisture and Temperature in the Loess Hilly Region of China. <i>Agronomy</i> , 2020, 10, 774.	3.0	2
40	Attribution analysis of climatic and multiple anthropogenic causes of runoff change in the Loess Plateauâ€”A caseâ€”study of the Jing River Basin. <i>Land Degradation and Development</i> , 2020, 31, 1622-1640.	3.9	21
41	Soil properties of apple orchards on China's Loess Plateau. <i>Science of the Total Environment</i> , 2020, 723, 138041.	8.0	42
42	Intra-storm time stability analysis of surface soil water content. <i>Geoderma</i> , 2019, 352, 33-37.	5.1	7
43	The tradeoff between soil erosion protection and water consumption in revegetation: Evaluation of new indicators and influencing factors. <i>Geoderma</i> , 2019, 347, 32-39.	5.1	18
44	Land Use Affects Soil Moisture Response to Dramatic Shortâ€”term Rainfall Events in a Hillslope Catchment of the Chinese Loess Plateau. <i>Agronomy Journal</i> , 2019, 111, 1506-1515.	1.8	11
45	Testing of observation operators designed to estimate profile soil moisture from surface measurements. <i>Hydrological Processes</i> , 2019, 33, 575-584.	2.6	15
46	Effects of varied water regimes on root development and its relations with soil water under wheat/maize intercropping system. <i>Plant and Soil</i> , 2019, 439, 113-130.	3.7	36
47	Effects of water collection and mulching combinations on water infiltration and consumption in a semiarid rainfed orchard. <i>Journal of Hydrology</i> , 2018, 558, 432-441.	5.4	49
48	Identifying a suitable revegetation technique for soil restoration on water-limited and degraded land: Considering both deep soil moisture deficit and soil organic carbon sequestration. <i>Geoderma</i> , 2018, 319, 61-69.	5.1	106
49	Study on Water Suitability of Apple Plantations in the Loess Plateau under Climate Change. <i>International Journal of Environmental Research and Public Health</i> , 2018, 15, 2504.	2.6	7
50	Revegetation modifies patterns of temporal soil respiration responses to extreme-drying-and-rewetting in a semiarid ecosystem. <i>Plant and Soil</i> , 2018, 433, 227-241.	3.7	9
51	Vegetative filter stripsâ€”Effect of vegetation type and shape of strip on runâ€”off and sediment trapping. <i>Land Degradation and Development</i> , 2018, 29, 3917-3927.	3.9	7
52	Exotic shrub species (<i>Caragana korshinskii</i>) is more resistant to extreme natural drought than native species (<i>Artemisia gmelinii</i>) in a semiarid revegetated ecosystem. <i>Agricultural and Forest Meteorology</i> , 2018, 263, 207-216.	4.8	57
53	Application Rate Influences the Soil and Water Conservation Effectiveness of Mulching with Chipped Branches. <i>Soil Science Society of America Journal</i> , 2018, 82, 447-454.	2.2	12
54	Seasonal water use patterns of rainfed jujube trees in stands of different ages under semiarid Plantations in China. <i>Agriculture, Ecosystems and Environment</i> , 2018, 265, 392-401.	5.3	49

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55	Extreme natural drought enhances interspecific facilitation in semiarid agroforestry systems. <i>Agriculture, Ecosystems and Environment</i> , 2018, 265, 444-453.	5.3	52
56	Soil water and root distribution of apple tree (<i>Malus pumila</i> Mill) stands in relation to stand age and rainwater collection and infiltration system (RWCI) in a hilly region of the Loess Plateau, China. <i>Catena</i> , 2018, 170, 324-334.	5.0	57
57	Soil Water Content and Root Patterns in a Rain-fed Jujube Plantation across Stand Ages on the Loess Plateau of China. <i>Land Degradation and Development</i> , 2017, 28, 207-216.	3.9	50
58	Variations of Soil Organic Carbon Following Land Use Change on Deep Loess Hillslopes in China. <i>Land Degradation and Development</i> , 2017, 28, 1902-1912.	3.9	58
59	Effect of plant cover type on soil water budget and tree photosynthesis in jujube orchards. <i>Agricultural Water Management</i> , 2017, 184, 135-144.	5.6	15
60	Spatial distribution of soil moisture and fine roots in rain-fed apple orchards employing a Rainwater Collection and Infiltration (RWCI) system on the Loess Plateau of China. <i>Agricultural Water Management</i> , 2017, 184, 170-177.	5.6	54
61	Dynamics of runoff and sediment trapping performance of vegetative filter strips: Run-on experiments and modeling. <i>Science of the Total Environment</i> , 2017, 593-594, 54-64.	8.0	31
62	Temporal and spatial evolution of the standardized precipitation evapotranspiration index (SPEI) in the Loess Plateau under climate change from 2001 to 2050. <i>Science of the Total Environment</i> , 2017, 595, 191-200.	8.0	142
63	Actual ET modelling based on the Budyko framework and the sustainability of vegetation water use in the loess plateau. <i>Science of the Total Environment</i> , 2017, 579, 1550-1559.	8.0	57
64	Border row effects on light interception in wheat/maize strip intercropping systems. <i>Field Crops Research</i> , 2017, 214, 1-13.	5.1	57
65	Soil water effects of agroforestry in rainfed jujube (<i>Ziziphus jujube</i> Mill.) orchards on loess hillslopes in Northwest China. <i>Agriculture, Ecosystems and Environment</i> , 2017, 247, 343-351.	5.3	52
66	Integrating a mini catchment with mulching for soil water management in a sloping jujube orchard on the semiarid Loess Plateau of China. <i>Solid Earth</i> , 2016, 7, 167-175.	2.8	23
67	Evaluation of Soil Water Availability (SWA) Based on Hydrological Modelling in Arid and Semi-Arid Areas: A Case Study in Handan City, China. <i>Water (Switzerland)</i> , 2016, 8, 360.	2.7	3
68	Simulation Study of the Impact of Permanent Groundcover on Soil and Water Changes in Jujube Orchards on Sloping Ground. <i>Land Degradation and Development</i> , 2016, 27, 946-954.	3.9	25
69	The Effects of Long-term Fertiliser Applications on Soil Organic Carbon and Hydraulic Properties of a Loess Soil in China. <i>Land Degradation and Development</i> , 2016, 27, 60-67.	3.9	36
70	Simulated Study on Effects of Ground Managements on Soil Water and Available Nutrients in Jujube Orchards. <i>Land Degradation and Development</i> , 2016, 27, 35-42.	3.9	52
71	Effects of large gullies on catchment-scale soil moisture spatial behaviors: A case study on the Loess Plateau of China. <i>Geoderma</i> , 2016, 261, 1-10.	5.1	62
72	Development and evaluation of a physically based multiscalar drought index: The Standardized Moisture Anomaly Index. <i>Journal of Geophysical Research D: Atmospheres</i> , 2015, 120, 11,575.	3.3	59

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73	Soil Quality Indicators in Relation to Land Use and Topography in a Small Catchment on the Loess Plateau of China. <i>Land Degradation and Development</i> , 2015, 26, 54-61.	3.9	106
74	Catchment-scale variability of absolute versus temporal anomaly soil moisture: Time-invariant part not always plays the leading role. <i>Journal of Hydrology</i> , 2015, 529, 1669-1678.	5.4	23
75	Radiation interception and utilization by wheat/maize strip intercropping systems. <i>Agricultural and Forest Meteorology</i> , 2015, 204, 58-66.	4.8	71
76	Water use and crop coefficient of the wheat-maize strip intercropping system for an arid region in northwestern China. <i>Agricultural Water Management</i> , 2015, 161, 77-85.	5.6	26
77	Effects of water limitation on yield advantage and water use in wheat (<i>Triticum aestivum</i> L.)/maize (<i>Zea mays</i> L.) intercropping system. <i>Journal of Agricultural Science</i> , 2015, 155, 1-10.	4.1	51
78	Effects of soil managements on surface runoff and soil water content in jujube orchard under simulated rainfalls. <i>Catena</i> , 2015, 135, 193-201.	5.0	17
79	Maize-Soybean Intercropping Interactions Above and Below Ground. <i>Crop Science</i> , 2014, 54, 914-922.	1.8	61
80	Assessing the spatial and temporal variation of the rainwater harvesting potential (1971-2010) on the Chinese Loess Plateau using the VIC model. <i>Hydrological Processes</i> , 2014, 28, 534-544.	2.6	39
81	Spatiotemporal analysis of climate variability (1971-2010) in spring and summer on the Loess Plateau, China. <i>Hydrological Processes</i> , 2014, 28, 1689-1702.	2.6	32
82	EFFECTS OF LAND USE ON SOIL MOISTURE VARIATIONS IN A SEMI-ARID CATCHMENT: IMPLICATIONS FOR LAND AND AGRICULTURAL WATER MANAGEMENT. <i>Land Degradation and Development</i> , 2014, 25, 163-172.	3.9	125
83	Runoff features of pasture and crop slopes at different rainfall intensities, antecedent moisture contents and gradients on the Chinese Loess Plateau: A solution of rainfall simulation experiments. <i>Catena</i> , 2014, 119, 90-96.	5.0	31
84	Changes in key driving forces of soil erosion in the Middle Yellow River Basin: vegetation and climate. <i>Natural Hazards</i> , 2014, 70, 957-968.	3.4	11
85	Effects of permanent ground cover on soil moisture in jujube orchards under sloping ground: A simulation study. <i>Agricultural Water Management</i> , 2014, 138, 68-77.	5.6	27
86	The dynamic effects of pastures and crop on runoff and sediments reduction at loess slopes under simulated rainfall conditions. <i>Catena</i> , 2014, 119, 1-7.	5.0	59
87	Statistical analyses and controls of root-zone soil moisture in a large gully of the Loess Plateau. <i>Environmental Earth Sciences</i> , 2014, 71, 4801-4809.	2.7	16
88	Effects of vegetation cover of natural grassland on runoff and sediment yield in loess hilly region of China. <i>Journal of the Science of Food and Agriculture</i> , 2014, 94, 497-503.	3.5	26
89	Growth, yield, and nitrogen use in the wheat/maize intercropping system in an arid region of northwestern China. <i>Field Crops Research</i> , 2014, 167, 19-30.	5.1	64
90	Changes of soil hydraulic properties under early-stage natural vegetation recovering on the Loess Plateau of China. <i>Catena</i> , 2014, 113, 386-391.	5.0	56

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91	Meteorological drought over the Chinese Loess Plateau: 1971–2010. <i>Natural Hazards</i> , 2013, 67, 951-961.	3.4	21
92	Effects of rainfall intensity, underlying surface and slope gradient on soil infiltration under simulated rainfall experiments. <i>Catena</i> , 2013, 104, 93-102.	5.0	153
93	A drought hazard assessment index based on the VIC–PDSI model and its application on the Loess Plateau, China. <i>Theoretical and Applied Climatology</i> , 2013, 114, 125-138.	2.8	25
94	Estimation of spatial soil moisture averages in a large gully of the Loess Plateau of China through statistical and modeling solutions. <i>Journal of Hydrology</i> , 2013, 486, 466-478.	5.4	52
95	Changes in vegetation condition in areas with different gradients (1980–2010) on the Loess Plateau, China. <i>Environmental Earth Sciences</i> , 2013, 68, 2427-2438.	2.7	105
96	Runoff and sediment yield under simulated rainfall on hillslopes in the Loess Plateau of China. <i>Soil Research</i> , 2013, 51, 50.	1.1	39
97	Estimating the spatial means and variability of root-zone soil moisture in gullies using measurements from nearby uplands. <i>Journal of Hydrology</i> , 2013, 476, 28-41.	5.4	43
98	Estimating soil moisture in gullies from adjacent upland measurements through different observation operators. <i>Journal of Hydrology</i> , 2013, 486, 420-429.	5.4	14
99	Biosynthesis of rare hexoses using microorganisms and related enzymes. <i>Beilstein Journal of Organic Chemistry</i> , 2013, 9, 2434-2445.	2.2	74
100	Drought variation trends in different subregions of the Chinese Loess Plateau over the past four decades. <i>Agricultural Water Management</i> , 2012, 115, 167-177.	5.6	66
101	Estimating spatial mean soil water contents of sloping jujube orchards using temporal stability. <i>Agricultural Water Management</i> , 2011, 102, 66-73.	5.6	73
102	Soil moisture variability along transects over a well-developed gully in the Loess Plateau, China. <i>Catena</i> , 2011, 87, 357-367.	5.0	107
103	Impact of climate change and irrigation technology advancement on agricultural water use in China. <i>Climatic Change</i> , 2010, 100, 797-805.	3.6	53
104	Land use affects the response of soil moisture and soil temperature to environmental factors in the loess hilly region of China. <i>PeerJ</i> , 0, 10, e13736.	2.0	6