

Jianting Zhu

List of Publications by Year in descending order

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102
papers

1,729
citations

236925

25
h-index

361022

35
g-index

104
all docs

104
docs citations

104
times ranked

1441
citing authors

#	ARTICLE	IF	CITATIONS
1	Simple screening models of NAPL dissolution in the subsurface. <i>Journal of Contaminant Hydrology</i> , 2004, 72, 245-258.	3.3	82
2	Spatial Averaging of van Genuchten Hydraulic Parameters for Steady-State Flow in Heterogeneous Soils: A Numerical Study. <i>Vadose Zone Journal</i> , 2002, 1, 261-272.	2.2	70
3	Impacts of climate change on vegetation phenology and net primary productivity in arid Central Asia. <i>Science of the Total Environment</i> , 2021, 796, 149055.	8.0	67
4	Projections of desertification trends in Central Asia under global warming scenarios. <i>Science of the Total Environment</i> , 2021, 781, 146777.	8.0	51
5	Effective Hydraulic Parameters in Horizontally and Vertically Heterogeneous Soils for Steady-State Land-Atmosphere Interaction. <i>Journal of Hydrometeorology</i> , 2007, 8, 715-729.	1.9	50
6	Aggravated risk of soil erosion with global warming – A global meta-analysis. <i>Catena</i> , 2021, 200, 105129.	5.0	50
7	Upscaling of soil hydraulic properties for steady state evaporation and infiltration. <i>Water Resources Research</i> , 2002, 38, 17-1-17-13.	4.2	46
8	Effective hydraulic parameters for steady state vertical flow in heterogeneous soils. <i>Water Resources Research</i> , 2003, 39, .	4.2	44
9	Sensitivity analysis of greenhouse gas emissions at farm level: case study of grain and cash crops. <i>Environmental Science and Pollution Research</i> , 2022, 29, 82559-82573.	5.3	42
10	Sensitivity analysis of unsaturated flow and contaminant transport with correlated parameters. <i>Journal of Hydrology</i> , 2011, 397, 238-249.	5.4	40
11	A new general 1D vadose zone flow solution method. <i>Water Resources Research</i> , 2015, 51, 4282-4300.	4.2	37
12	Reducing Saturated Hydraulic Conductivity of Sandy Soils with Polyacrylamide. <i>Soil Science Society of America Journal</i> , 2009, 73, 13-20.	2.2	36
13	Future projections and uncertainty assessment of extreme rainfall intensity in the United States from an ensemble of climate models. <i>Climatic Change</i> , 2013, 118, 469-485.	3.6	36
14	Earthworms and tree roots: A model study of the effect of preferential flow paths on runoff generation and groundwater recharge in steep, saprolitic, tropical lowland catchments. <i>Water Resources Research</i> , 2017, 53, 5400-5419.	4.2	35
15	Effective permeability of fractal fracture rocks: Significance of turbulent flow and fractal scaling. <i>International Journal of Heat and Mass Transfer</i> , 2018, 116, 549-556.	4.8	35
16	Risk assessment of soil erosion in Central Asia under global warming. <i>Catena</i> , 2022, 212, 106056.	5.0	35
17	Correspondence and Upscaling of Hydraulic Functions for Steady-State Flow in Heterogeneous Soils. <i>Vadose Zone Journal</i> , 2004, 3, 527-533.	2.2	34
18	Effective scaling factor for transient infiltration in heterogeneous soils. <i>Journal of Hydrology</i> , 2006, 319, 96-108.	5.4	31

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19	Spatiotemporal Analysis of Meteorological and Hydrological Droughts and Their Propagations. <i>Water (Switzerland)</i> , 2021, 13, 2237.	2.7	31
20	Impact of Climate Change on Extreme Rainfall across the United States. <i>Journal of Hydrologic Engineering - ASCE</i> , 2013, 18, 1301-1309.	1.9	30
21	Evaluation and projection of precipitation in Pakistan using the Coupled Model Intercomparison Project Phase 6 model simulations. <i>International Journal of Climatology</i> , 2022, 42, 6665-6684.	3.5	30
22	Projections of actual evapotranspiration under the 1.5°C and 2.0°C global warming scenarios in sandy areas in northern China. <i>Science of the Total Environment</i> , 2018, 645, 1496-1508.	8.0	29
23	Analysis of effective Green-Ampt hydraulic parameters for vertically layered soils. <i>Journal of Hydrology</i> , 2016, 538, 705-712.	5.4	27
24	Trade-offs and synergies in ecosystem service values of inland lake wetlands in Central Asia under land use/cover change: A case study on Ebinur Lake, China. <i>Global Ecology and Conservation</i> , 2020, 24, e01253.	2.1	27
25	Analytical solutions for steady state vertical infiltration. <i>Water Resources Research</i> , 2002, 38, 20-1-20-5.	4.2	26
26	On the Effective Averaging Schemes of Hydraulic Properties at the Landscape Scale. <i>Vadose Zone Journal</i> , 2006, 5, 308-316.	2.2	26
27	Simulation of field injection experiments in heterogeneous unsaturated media using cokriging and artificial neural network. <i>Water Resources Research</i> , 2007, 43, .	4.2	26
28	Parametric uncertainty and sensitivity analysis of hydrodynamic processes for a large shallow freshwater lake. <i>Hydrological Sciences Journal</i> , 2015, 60, 1078-1095.	2.6	26
29	Assessment of soil conservation services of four river basins in Central Asia under global warming scenarios. <i>Geoderma</i> , 2020, 375, 114533.	5.1	26
30	Spatial structure of hydraulic properties from canopy to interspace in the Mojave Desert. <i>Geophysical Research Letters</i> , 2008, 35, .	4.0	25
31	Effect of watershed disturbance on seasonal hydrological drought: An improved double mass curve (IDMC) technique. <i>Journal of Hydrology</i> , 2020, 585, 124746.	5.4	25
32	Spatial Averaging of van Genuchten Hydraulic Parameters for Steady-State Flow in Heterogeneous Soils: A Numerical Study. <i>Vadose Zone Journal</i> , 2002, 1, 261-272.	2.2	25
33	Soil heterogeneity in Mojave Desert shrublands: Biotic and abiotic processes. <i>Water Resources Research</i> , 2012, 48, .	4.2	22
34	Spatial and Temporal Scale Effect in Simulating Hydrologic Processes in a Watershed. <i>Journal of Hydrologic Engineering - ASCE</i> , 2014, 19, 99-107.	1.9	21
35	Numerical Evaluation of Uncertainty in Water Retention Parameters and Effect on Predictive Uncertainty. <i>Vadose Zone Journal</i> , 2009, 8, 158-166.	2.2	20
36	Land Use-Dependent Preferential Flow Paths Affect Hydrological Response of Steep Tropical Lowland Catchments With Saprolitic Soils. <i>Water Resources Research</i> , 2018, 54, 5551-5566.	4.2	20

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37	Soil Hydraulic Parameter Upscaling for Steady-State Flow with Root Water Uptake. <i>Vadose Zone Journal</i> , 2004, 3, 1464-1470.	2.2	18
38	Impacts of riparian zone plant water use on temporal scaling of groundwater systems. <i>Hydrological Processes</i> , 2012, 26, 1352-1360.	2.6	17
39	The soil moisture velocity equation. <i>Journal of Advances in Modeling Earth Systems</i> , 2017, 9, 1473-1487.	3.8	17
40	Towards Sustainable Farm Production System: A Case Study of Corn Farming. <i>Sustainability</i> , 2021, 13, 9243.	3.2	17
41	A note on slow non-Newtonian flows over an ensemble of spherical bubbles. <i>Chemical Engineering Science</i> , 2001, 56, 2237-2241.	3.8	16
42	Multimodel ensemble projection of meteorological drought scenarios and connection with climate based on spectral analysis. <i>International Journal of Climatology</i> , 2020, 40, 3360-3379.	3.5	15
43	Validation of finite water content vadose zone dynamics method using column experiments with a moving water table and applied surface flux. <i>Water Resources Research</i> , 2015, 51, 3108-3125.	4.2	14
44	Infiltration model in sloping layered soils and guidelines for model parameter estimation. <i>Hydrological Sciences Journal</i> , 2017, 62, 2222-2237.	2.6	14
45	Spatial variability of the groundwater exploitation potential in an arid alluvial-diluvial plain using GIS-based Dempster-Shafer theory. <i>Quaternary International</i> , 2021, 571, 127-135.	1.5	14
46	Prediction of unsaturated flow and water backfill during infiltration in layered soils. <i>Journal of Hydrology</i> , 2018, 557, 509-521.	5.4	13
47	Variations in water use strategies of sand-binding vegetation along a precipitation gradient in sandy regions, northern China. <i>Journal of Hydrology</i> , 2021, 600, 126539.	5.4	13
48	Effective aperture and orientation of fractal fracture network. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2018, 512, 27-37.	2.6	12
49	Equivalent Parallel and Perpendicular Unsaturated Hydraulic Conductivities: Arithmetic Mean or Harmonic Mean?. <i>Soil Science Society of America Journal</i> , 2008, 72, 1226-1233.	2.2	11
50	Sensitivity of Solute Advective Travel Time to Porosities of Hydrogeologic Units. <i>Ground Water</i> , 2010, 48, 442-447.	1.3	11
51	On bias correction in drought frequency analysis based on climate models. <i>Climatic Change</i> , 2017, 140, 361-374.	3.6	10
52	Infiltration Model Based on Traveling Characteristics of Wetting Front. <i>Soil Science Society of America Journal</i> , 2018, 82, 45-55.	2.2	10
53	Simulation of groundwater exchange between an unconfined aquifer and a discrete fracture network with laminar and turbulent flows. <i>Journal of Hydrology</i> , 2018, 562, 468-476.	5.4	10
54	Anisotropy of Unsaturated Layered Soils: Impact of Layer Composition and Domain Size. <i>Soil Science Society of America Journal</i> , 2015, 79, 487-494.	2.2	9

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55	Approximate solutions of non-Newtonian flows over a swarm of bubbles. <i>International Journal of Multiphase Flow</i> , 2004, 30, 1271-1278.	3.4	8
56	Spatial Averaging of van Genuchten Hydraulic Parameters for Steady-State Flow in Heterogeneous Soils. <i>Vadose Zone Journal</i> , 2002, 1, 261.	2.2	8
57	Improved Spectral Water Index Combined with Otsu Algorithm to Extract Muddy Coastline Data. <i>Water (Switzerland)</i> , 2022, 14, 855.	2.7	8
58	Significance of groundwater flux on contaminant concentration and mass discharge in the nonaqueous phase liquid (NAPL) contaminated zone. <i>Journal of Contaminant Hydrology</i> , 2016, 192, 158-164.	3.3	7
59	Non-linear flow reduction factor and effective permeability of fractal fracture network. <i>Journal of Natural Gas Science and Engineering</i> , 2019, 66, 138-147.	4.4	7
60	Effective hydraulic conductivity of discrete fracture network with aperture-length correlation. <i>Geosciences Journal</i> , 2020, 24, 329-338.	1.2	7
61	Characterization of sudden and sustained base flow jump hydrologic behaviour in the humid seasonal tropics of the Panama Canal Watershed. <i>Hydrological Processes</i> , 2020, 34, 569-582.	2.6	7
62	Effect of Layered Structure on Anisotropy of Unsaturated Soils. <i>Soil Science</i> , 2012, 177, 139-146.	0.9	6
63	Sensitivity of advective travel time of contaminants to correlated formation porosities. <i>Hydrogeology Journal</i> , 2012, 20, 135-141.	2.1	6
64	Fractal nature of groundwater level fluctuations affected by riparian zone vegetation water use and river stage variations. <i>Scientific Reports</i> , 2019, 9, 15383.	3.3	6
65	Impact of yield stress and fractal characteristics on the flow of Bingham fluid through fracture network. <i>Journal of Petroleum Science and Engineering</i> , 2020, 195, 107637.	4.2	6
66	Evaluating the performance of regional climate models to simulate the US drought and its connection with El Nino Southern Oscillation. <i>Theoretical and Applied Climatology</i> , 2021, 145, 1259-1273.	2.8	6
67	Impact of Size Distribution of Cell Model on the Effective Thermal Conductivity of Saturated Porous Media. <i>International Journal of Thermophysics</i> , 2020, 41, 1.	2.1	6
68	Improvement of Ecological Risk Considering Heavy Metal in Soil and Groundwater Surrounding Electroplating Factories. <i>Processes</i> , 2022, 10, 1267.	2.8	6
69	Unsaturated Hydraulic Conductivity of Repeatedly Layered Soil Structures. <i>Soil Science Society of America Journal</i> , 2012, 76, 28-35.	2.2	5
70	Shrub spatial organization and partitioning of evaporation and transpiration in arid environments. <i>Ecohydrology</i> , 2015, 8, 1218-1228.	2.4	5
71	New Approach for Simulating Groundwater Flow in Discrete Fracture Network. <i>Journal of Hydrologic Engineering - ASCE</i> , 2018, 23, .	1.9	5
72	Multiple Wavelet Coherence to Evaluate Local Multivariate Relationships in a Groundwater System. <i>Ground Water</i> , 2021, 59, 443-452.	1.3	5

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73	A note on statistical analysis of the rate coefficient of nonaqueous phase liquid dissolution in porous media. <i>Water Resources Research</i> , 2000, 36, 1347-1352.	4.2	4
74	Sensitivity of Unlined Canal Seepage to Hydraulic Properties of Polyacrylamide-Treated Soil. <i>Soil Science Society of America Journal</i> , 2009, 73, 695-703.	2.2	4
75	An explicit approach to capture diffusive effects in finite water-content method for solving vadose zone flow. <i>Journal of Hydrology</i> , 2016, 535, 270-281.	5.4	4
76	Modeling Infiltration and Runoff with Surface Crust under Unsteady Rainfalls. <i>Journal of Hydrologic Engineering - ASCE</i> , 2018, 23, .	1.9	4
77	Unsaturated cell model of effective thermal conductivity of soils. <i>SN Applied Sciences</i> , 2020, 2, 1.	2.9	4
78	Convective and conductive heat transfer of creeping flow in a multi-particle system. <i>International Journal of Thermal Sciences</i> , 2021, 159, 106573.	4.9	4
79	Spatial and Temporal Variability of Drought Patterns over the Continental United States from Observations and Regional Climate Models. <i>Journal of Meteorological Research</i> , 2021, 35, 295-312.	2.4	4
80	Forecast and uncertainty analysis of extreme precipitation in China from ensemble of multiple climate models. <i>Theoretical and Applied Climatology</i> , 2021, 145, 787-805.	2.8	4
81	Soil hydraulic properties for moisture redistribution in a large-scale heterogeneous landscape. <i>Hydrological Sciences Journal</i> , 2012, 57, 1196-1206.	2.6	3
82	Impact of scaling break and fracture orientation on effective permeability of fractal fracture network. <i>SN Applied Sciences</i> , 2019, 1, 1.	2.9	3
83	Flow of power-law fluid through fractal discrete fracture network. <i>European Physical Journal Plus</i> , 2020, 135, 1.	2.6	3
84	Impact of fractal characteristics on evaporation and infiltration in unsaturated heterogeneous soils. <i>Hydrological Sciences Journal</i> , 2020, 65, 1872-1878.	2.6	3
85	Equivalent Permeability of Fractured Media Incorporating Tortuosity and Nonlinear Flow. <i>Transport in Porous Media</i> , 2020, 132, 741-760.	2.6	3
86	Effective Approach to Calculate Groundwater Return Flow to a River from Irrigation Areas. <i>Journal of Irrigation and Drainage Engineering - ASCE</i> , 2014, 140, 04013025.	1.0	2
87	Dissolution Dynamics and Temporal Variations of Groundwater Flux in the Subsurface Source Zone of Nonaqueous Phase Liquids. <i>Journal of Hazardous, Toxic, and Radioactive Waste</i> , 2015, 19, 04014032.	2.0	2
88	A New Visual Method to Determine Infiltration Rate from Infiltration Capacity Models. <i>Journal of Natural Resources and Life Sciences Education</i> , 2016, 45, nse2016.07.0020.	1.5	2
89	Temporal Dynamics of NAPL Source Zone Strength: Relationship between Groundwater Flux and Contaminant Mass Discharge. <i>Journal of Hazardous, Toxic, and Radioactive Waste</i> , 2016, 20, 04016006.	2.0	2
90	Sensitivity of contaminant travel time to the combined effect of porosity and hydraulic conductivity. <i>Hydrogeology Journal</i> , 2019, 27, 615-623.	2.1	2

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91	Coupling effect of power-law fluid properties and scaled fractal characteristics on flow through fractured media. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2020, 559, 125073.	2.6	2
92	Starting pressure head gradient and flow of Bingham plastics through a scaled fractal fracture network. <i>International Journal of Non-Linear Mechanics</i> , 2020, 126, 103577.	2.6	2
93	Significance of Mass-Concentration Relation on the Contaminant Source Depletion in the Nonaqueous Phase Liquid (NAPL) Contaminated Zone. <i>Transport in Porous Media</i> , 2021, 137, 399-416.	2.6	2
94	Estimation of groundwater recharge using multiple climate models in Bayesian frameworks. <i>Journal of Water and Climate Change</i> , 0, , .	2.9	2
95	Streamflow Consumption vs. Climate Change in the Evolution of Discharge in the Tarim River Basin, Northwest China. <i>Water (Switzerland)</i> , 2022, 14, 392.	2.7	2
96	Sensitivity and Uncertainty of Groundwater Discharge Estimates for Semiarid Shrublands. <i>Journal of the American Water Resources Association</i> , 2009, 45, 641-653.	2.4	1
97	Assessing the impact of climate variability on runoff using a new linear runoff generation model. <i>Hydrological Sciences Journal</i> , 2016, 61, 1040-1053.	2.6	1
98	Direct Hydraulic Parameter and Function Estimation for Diverse Soil Types Under Infiltration and Evaporation. <i>Transport in Porous Media</i> , 2017, 116, 797-823.	2.6	1
99	Using time compression approximation to determine actual infiltration rate from variable rainfall events. <i>Hydrology Research</i> , 2019, 50, 155-165.	2.7	1
100	Viscoplastic and pseudoplastic flows through fractal fractures. <i>International Journal of Non-Linear Mechanics</i> , 2022, 145, 104107.	2.6	1
101	Sensitivity of advective contaminant travel time to the soil hydraulic parameters in unsaturated heterogeneous soils. <i>Journal of Hydrology</i> , 2019, 576, 137-149.	5.4	0
102	Changes of Streamflow Caused by Early Start of Growing Season in Nevada, United States. <i>Water (Switzerland)</i> , 2021, 13, 1067.	2.7	0