

James Jawitz

List of Publications by Year in descending order

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Version: 2024-02-01

110
papers

4,338
citations

109137

35
h-index

123241

61
g-index

122
all docs

122
docs citations

122
times ranked

3952
citing authors

#	ARTICLE	IF	CITATIONS
1	Nutrient loads exported from managed catchments reveal emergent biogeochemical stationarity. <i>Geophysical Research Letters</i> , 2010, 37, .	1.5	338
2	Do geographically isolated wetlands influence landscape functions?. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 1978-1986.	3.3	297
3	Wetlands as large-scale nature-based solutions: Status and challenges for research, engineering and management. <i>Ecological Engineering</i> , 2017, 108, 489-497.	1.6	217
4	Enhancing protection for vulnerable waters. <i>Nature Geoscience</i> , 2017, 10, 809-815.	5.4	141
5	Field Implementation of a Winsor Type I Surfactant/Alcohol Mixture for in Situ Solubilization of a Complex LNAPL as a Single-Phase Microemulsion. <i>Environmental Science & Technology</i> , 1998, 32, 523-530.	4.6	125
6	Emergent archetype patterns of coupled hydrologic and biogeochemical responses in catchments. <i>Geophysical Research Letters</i> , 2017, 44, 4143-4151.	1.5	117
7	In-Situ Alcohol Flushing of a DNAPL Source Zone at a Dry Cleaner Site. <i>Environmental Science & Technology</i> , 2000, 34, 3722-3729.	4.6	116
8	DNAPL source depletion: Linking architecture and flux response. <i>Journal of Contaminant Hydrology</i> , 2006, 85, 118-140.	1.6	115
9	Groundwater contaminant flux reduction resulting from nonaqueous phase liquid mass reduction. <i>Water Resources Research</i> , 2005, 41, .	1.7	99
10	Moments of truncated continuous univariate distributions. <i>Advances in Water Resources</i> , 2004, 27, 269-281.	1.7	95
11	Water availability and vulnerability of 225 large cities in the United States. <i>Water Resources Research</i> , 2012, 48, .	1.7	93
12	Comment on "Steady state mass transfer from single-component dense nonaqueous phase liquids in uniform flow fields" by T. C. Sale and D. B. McWhorter. <i>Water Resources Research</i> , 2003, 39, .	1.7	78
13	The evolution of human population distance to water in the USA from 1790 to 2010. <i>Nature Communications</i> , 2019, 10, 430.	5.8	78
14	Priorities and Interactions of Sustainable Development Goals (SDGs) with Focus on Wetlands. <i>Water (Switzerland)</i> , 2019, 11, 619.	1.2	75
15	Temporal inequality in catchment discharge and solute export. <i>Water Resources Research</i> , 2011, 47, .	1.7	72
16	Landscape filtering of hydrologic and biogeochemical responses in managed catchments. <i>Landscape Ecology</i> , 2013, 28, 651-664.	1.9	65
17	River network connectivity and fish diversity. <i>Science of the Total Environment</i> , 2019, 689, 21-30.	3.9	64
18	Controlled release, blind test of DNAPL remediation by ethanol flushing. <i>Journal of Contaminant Hydrology</i> , 2004, 69, 281-297.	1.6	63

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19	Carbon and nutrient export regimes from headwater catchments to downstream reaches. <i>Biogeosciences</i> , 2017, 14, 4391-4407.	1.3	63
20	Disparities in publication patterns by gender, race and ethnicity based on a survey of a random sample of authors. <i>Scientometrics</i> , 2013, 96, 515-534.	1.6	60
21	Field Evaluation of Interfacial and Partitioning Tracers for Characterization of Effective NAPL-Water Contact Areas. <i>Ground Water</i> , 1998, 36, 495-502.	0.7	58
22	Miscible fluid displacement stability in unconfined porous media. <i>Journal of Contaminant Hydrology</i> , 1998, 31, 211-230.	1.6	58
23	Back Diffusion from Thin Low Permeability Zones. <i>Environmental Science & Technology</i> , 2015, 49, 415-422.	4.6	57
24	Evaluation of simplified mass transfer models to simulate the impacts of source zone architecture on nonaqueous phase liquid dissolution in heterogeneous porous media. <i>Journal of Contaminant Hydrology</i> , 2008, 102, 49-60.	1.6	52
25	Controlled release, blind tests of DNAPL characterization using partitioning tracers. <i>Journal of Contaminant Hydrology</i> , 2002, 59, 187-210.	1.6	51
26	Predicting author h-index using characteristics of the co-author network. <i>Scientometrics</i> , 2013, 96, 467-483.	1.6	49
27	Globally Universal Fractal Pattern of Human Settlements in River Networks. <i>Earth's Future</i> , 2018, 6, 1134-1145.	2.4	49
28	Temporal evolution of DNAPL source and contaminant flux distribution: Impacts of source mass depletion. <i>Journal of Contaminant Hydrology</i> , 2008, 95, 93-109.	1.6	48
29	Does increased model complexity improve description of phosphorus dynamics in a large treatment wetland?. <i>Ecological Engineering</i> , 2012, 42, 283-294.	1.6	48
30	High-resolution reconstruction of the United States human population distribution, 1790 to 2010. <i>Scientific Data</i> , 2018, 5, 180067.	2.4	42
31	Strong hydroclimatic controls on vulnerability to subsurface nitrate contamination across Europe. <i>Nature Communications</i> , 2020, 11, 6302.	5.8	40
32	Estimating nonaqueous phase liquid spatial variability using partitioning tracer higher temporal moments. <i>Water Resources Research</i> , 2003, 39, .	1.7	39
33	Hydraulic analysis of cell-network treatment wetlands. <i>Journal of Hydrology</i> , 2006, 330, 721-734.	2.3	39
34	Laboratory investigation of flux reduction from dense non-aqueous phase liquid (DNAPL) partial source zone remediation by enhanced dissolution. <i>Journal of Contaminant Hydrology</i> , 2008, 102, 17-28.	1.6	39
35	Analytical expressions for drainable and fillable porosity of phreatic aquifers under vertical fluxes from evapotranspiration and recharge. <i>Water Resources Research</i> , 2012, 48, .	1.7	39
36	Stochastic modeling of hydrologic variability of geographically isolated wetlands: Effects of hydro-climatic forcing and wetland bathymetry. <i>Advances in Water Resources</i> , 2014, 69, 38-48.	1.7	38

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37	Remediation of NAPL Source Zones: Lessons Learned from Field Studies at Hill and Dover AFB. <i>Ground Water</i> , 2011, 49, 727-744.	0.7	36
38	Phosphorus storages in historically isolated wetland ecosystems and surrounding pasture uplands. <i>Ecological Engineering</i> , 2007, 31, 16-28.	1.6	35
39	Rejuvenating the largest municipal treatment wetland in Florida. <i>Ecological Engineering</i> , 2006, 26, 132-146.	1.6	34
40	Effects of Hydroclimatic Change and Rehabilitation Activities on Salinity and Mangroves in the CiÃ©naga Grande de Santa Marta, Colombia. <i>Wetlands</i> , 2018, 38, 755-767.	0.7	34
41	Solute source depletion control of forward and back diffusion through low-permeability zones. <i>Journal of Contaminant Hydrology</i> , 2016, 193, 54-62.	1.6	33
42	Overcoming Urban Water Insecurity with Infrastructure and Institutions. <i>Water Resources Management</i> , 2016, 30, 4913-4926.	1.9	32
43	Simplified contaminant source depletion models as analogs of multiphase simulators. <i>Journal of Contaminant Hydrology</i> , 2008, 97, 87-99.	1.6	29
44	Wetland-Groundwater Interactions in Subtropical Depressional Wetlands. <i>Wetlands</i> , 2010, 30, 997-1006.	0.7	27
45	Management scenario evaluation for a large treatment wetland using a spatio-temporal phosphorus transport and cycling model. <i>Ecological Engineering</i> , 2010, 36, 1627-1638.	1.6	27
46	Orientation matters: Patch anisotropy controls discharge competence and hydroperiod in a patterned peatland. <i>Geophysical Research Letters</i> , 2012, 39, .	1.5	27
47	Predicting dense nonaqueous phase liquid dissolution using a simplified source depletion model parameterized with partitioning tracers. <i>Water Resources Research</i> , 2008, 44, .	1.7	26
48	Field-scale forward and back diffusion through low-permeability zones. <i>Journal of Contaminant Hydrology</i> , 2017, 202, 47-58.	1.6	26
49	Solute evidence for hydrological connectivity of geographically isolated wetlands. <i>Land Degradation and Development</i> , 2018, 29, 3954-3962.	1.8	26
50	Rate-Limited Solubilization of Multicomponent Nonaqueous-Phase Liquids by Flushing with Cosolvents and Surfactants: Modeling Data from Laboratory and Field Experiments. <i>Environmental Science & Technology</i> , 2003, 37, 1983-1991.	4.6	25
51	Soil Phosphorus Release and Storage Capacity from an Impacted Subtropical Wetland. <i>Soil Science Society of America Journal</i> , 2010, 74, 1816-1825.	1.2	25
52	Resilience Dynamics of Urban Water Supply Security and Potential of Tipping Points. <i>Earth's Future</i> , 2019, 7, 1167-1191.	2.4	25
53	Convergence of DNAPL Source Strength Functions with Site Age. <i>Environmental Science & Technology</i> , 2009, 43, 9374-9379.	4.6	24
54	Seasonal dynamics of terrestrially sourced nitrogen influenced <i>Karenia brevis</i> blooms off Florida's southern Gulf Coast. <i>Harmful Algae</i> , 2020, 98, 101900.	2.2	24

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55	Spatially distributed modeling of surface water flow dynamics in the Everglades ridge and slough landscape. <i>Journal of Hydrology</i> , 2010, 390, 1-12.	2.3	23
56	Light reflection visualization to determine solute diffusion into clays. <i>Journal of Contaminant Hydrology</i> , 2014, 161, 1-9.	1.6	23
57	Spatial patterns of water quality impairments from point source nutrient loads in Germany's largest national River Basin (Weser River). <i>Science of the Total Environment</i> , 2019, 697, 134145.	3.9	23
58	Balancing security, resilience, and sustainability of urban water supply systems in a desirable operating space. <i>Environmental Research Letters</i> , 2020, 15, 035007.	2.2	23
59	Uranium and cesium accumulation in bean (<i>Phaseolus vulgaris</i> L. var. <i>vulgaris</i>) and its potential for uranium rhizofiltration. <i>Journal of Environmental Radioactivity</i> , 2015, 140, 42-49.	0.9	22
60	Effects of hydraulic resistance by vegetation on stage dynamics of a stormwater treatment wetland. <i>Journal of Hydrology</i> , 2013, 484, 74-85.	2.3	21
61	Stochastic modeling of wetland-groundwater systems. <i>Advances in Water Resources</i> , 2018, 112, 214-223.	1.7	20
62	Spatial Organization of Human Population and Wastewater Treatment Plants in Urbanized River Basins. <i>Water Resources Research</i> , 2019, 55, 6138-6152.	1.7	19
63	Multi-decadal trajectories of phosphorus loading, export, and instream retention along a catchment gradient. <i>Science of the Total Environment</i> , 2019, 667, 769-779.	3.9	19
64	Reactive Tracer Tests To Predict Dense Nonaqueous Phase Liquid Dissolution Dynamics in Laboratory Flow Chambers. <i>Environmental Science & Technology</i> , 2008, 42, 5285-5291.	4.6	18
65	Wetlandscape Fractal Topography. <i>Geophysical Research Letters</i> , 2018, 45, 6983-6991.	1.5	18
66	Mechanistic Biogeochemical Model Applications for Everglades Restoration: A Review of Case Studies and Suggestions for Future Modeling Needs. <i>Critical Reviews in Environmental Science and Technology</i> , 2011, 41, 489-516.	6.6	17
67	Forward and back diffusion through argillaceous formations. <i>Water Resources Research</i> , 2017, 53, 4514-4523.	1.7	17
68	Stochastic dynamics of wetlandscapes: Ecohydrological implications of shifts in hydro-climatic forcing and landscape configuration. <i>Science of the Total Environment</i> , 2019, 694, 133765.	3.9	17
69	Hyphenated hydrology: Interdisciplinary evolution of water resource science. <i>Water Resources Research</i> , 2017, 53, 2972-2982.	1.7	16
70	The evolution of urban water systems: societal needs, institutional complexities, and resource costs. <i>Urban Water Journal</i> , 2019, 16, 92-102.	1.0	16
71	Modeling two-dimensional reactive transport using a Godunov-mixed finite element method. <i>Journal of Hydrology</i> , 2007, 338, 28-41.	2.3	15
72	Characterizing deep soils from an impacted subtropical isolated wetland: implications for phosphorus storage. <i>Journal of Soils and Sediments</i> , 2010, 10, 514-525.	1.5	15

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73	Phosphorus Mass Balance and Internal Load in an Impacted Subtropical Isolated Wetland. <i>Water, Air, and Soil Pollution</i> , 2011, 218, 619-632.	1.1	15
74	Coupled local facilitation and global hydrologic inhibition drive landscape geometry in a patterned peatland. <i>Hydrology and Earth System Sciences</i> , 2015, 19, 2133-2144.	1.9	15
75	Why wastewater treatment fails to protect stream ecosystems in Europe. <i>Water Research</i> , 2022, 217, 118382.	5.3	15
76	Hydrologic controls on aperiodic spatial organization of the ridge-slough patterned landscape. <i>Hydrology and Earth System Sciences</i> , 2016, 20, 4457-4467.	1.9	14
77	Channel Filtering Generates Multifractal Solute Signals. <i>Geophysical Research Letters</i> , 2018, 45, 11,722.	1.5	14
78	Karst conduit contribution to spring discharge and aquifer cross-sectional area. <i>Journal of Hydrology</i> , 2019, 578, 124037.	2.3	14
79	Wetlandscape hydrologic dynamics driven by shallow groundwater and landscape topography. <i>Hydrological Processes</i> , 2020, 34, 1460-1474.	1.1	14
80	Theoretical and empirical evidence against the Budyko catchment trajectory conjecture. <i>Hydrology and Earth System Sciences</i> , 2022, 26, 1507-1525.	1.9	13
81	INLINE GAS CHROMATOGRAPHIC TRACER ANALYSIS: AN ALTERNATIVE TO CONVENTIONAL SAMPLING AND LABORATORY ANALYSIS FOR PARTITIONING TRACER TESTS. <i>Instrumentation Science and Technology</i> , 2002, 30, 415-426.	0.9	12
82	Passive Flux Meter Measurement of Water and Nutrient Flux in Saturated Porous Media: Bench-Scale Laboratory Tests. <i>Journal of Environmental Quality</i> , 2007, 36, 1266-1272.	1.0	12
83	Locally-calibrated light transmission visualization methods to quantify nonaqueous phase liquid mass in porous media. <i>Journal of Contaminant Hydrology</i> , 2008, 102, 29-38.	1.6	12
84	Enhanced aqueous dissolution of a DNAPL source to characterize the source strength function. <i>Journal of Contaminant Hydrology</i> , 2014, 169, 75-89.	1.6	12
85	Diffusion of solutes from depleting sources into and out of finite low-permeability zones. <i>Journal of Contaminant Hydrology</i> , 2019, 221, 127-134.	1.6	12
86	Ecological status of river networks: stream order-dependent impacts of agricultural and urban pressures across ecoregions. <i>Environmental Research Letters</i> , 2020, 15, 1040b3.	2.2	12
87	Dynamic spatio-temporal patterns of metapopulation occupancy in patchy habitats. <i>Royal Society Open Science</i> , 2021, 8, 201309.	1.1	11
88	Fluid and Porous Media Property Effects on Dense Nonaqueous Phase Liquid Migration and Contaminant Mass Flux. <i>Environmental Science & Technology</i> , 2007, 41, 1622-1627.	4.6	9
89	Nonlinear Dynamics in Treatment Wetlands: Identifying Systematic Drivers of Nonequilibrium Outlet Concentrations in Everglades STAs. <i>Water Resources Research</i> , 2019, 55, 11101-11120.	1.7	9
90	Local Storage Dynamics of Individual Wetlands Predict Wetlandscape Discharge. <i>Water Resources Research</i> , 2020, 56, e2020WR027581.	1.7	9

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91	Persistence of amphibian metapopulation occupancy in dynamic wetlandscapes. <i>Landscape Ecology</i> , 2022, 37, 695-711.	1.9	9
92	Attitudes about publishing and normal science advancement. <i>Journal of Informetrics</i> , 2013, 7, 850-858.	1.4	8
93	Identity and publication in non-university settings: academic co-authorship and collaboration. <i>Scientometrics</i> , 2017, 111, 401-416.	1.6	8
94	Network Topology and Rainfall Controls on the Variability of Combined Sewer Overflows and Loads. <i>Water Resources Research</i> , 2019, 55, 9578-9591.	1.7	8
95	Decadal scale recharge-discharge time lags from aquifer freshwater-saltwater interactions. <i>Journal of Hydrology</i> , 2020, 582, 124514.	2.3	8
96	Disaggregating Landscape-scale Nitrogen Attenuation Along Hydrological Flow Paths. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2020, 125, e2019JG005229.	1.3	8
97	Drivers of multi-decadal nitrate regime shifts in a large European catchment. <i>Environmental Research Letters</i> , 2022, 17, 064039.	2.2	8
98	Field-scale prediction of enhanced DNAPL dissolution based on partitioning tracers. <i>Journal of Contaminant Hydrology</i> , 2013, 152, 147-158.	1.6	7
99	Doing ecohydrology backward: Inferring wetland flow and hydroperiod from landscape patterns. <i>Water Resources Research</i> , 2017, 53, 5742-5755.	1.7	7
100	The nexus of inhabitants and impervious surfaces at city scale – wastewater and stormwater travel time distributions and an approach to calibrate diurnal variations. <i>Urban Water Journal</i> , 2018, 15, 576-583.	1.0	7
101	Emergent dispersal networks in dynamic wetlandscapes. <i>Scientific Reports</i> , 2020, 10, 14696.	1.6	6
102	Initial Test Results for a Passive Surface Water Fluxmeter to Measure Cumulative Water and Solute Mass Fluxes. <i>Environmental Science & Technology</i> , 2007, 41, 2485-2490.	4.6	5
103	In Situ Measurement of Nitrate Flux and Attenuation Using a Soil Passive Flux Meter. <i>Journal of Environmental Quality</i> , 2019, 48, 709-716.	1.0	5
104	Effect of Passive Surface Water Flux Meter Design on Water and Solute Mass Flux Estimates. <i>Journal of Hydrologic Engineering - ASCE</i> , 2009, 14, 1334-1342.	0.8	4
105	Spatially Distributed Hydrodynamic Modeling of Phosphorus Transport and Transformation in a Cell-Network Treatment Wetland. <i>Journal of Hydrologic Engineering - ASCE</i> , 2017, 22, .	0.8	4
106	In-Situ Solubilization by Cosolvent and Surfactant – Cosolvent Mixtures. <i>ACS Symposium Series</i> , 1999, , 86-101.	0.5	3
107	Coherence of global hydroclimate classification systems. <i>Hydrology and Earth System Sciences</i> , 2021, 25, 6173-6183.	1.9	3
108	Wetland Water Budgets. <i>Soil Science Society of America Book Series</i> , 2015, , 919-935.	0.3	1

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109	Flux-Based Site Assessment and Management. , 2014, , 187-218.		1
110	GQ13 "Managing groundwater quality to support competing human and ecological needs" Journal of Contaminant Hydrology, 2014, 169, 1-3.	1.6	0