

# Michelle A Walvoord

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

52  
papers

2,875  
citations

26  
h-index

53  
g-index

56  
ext. papers

3,295  
ext. citations

6.1  
avg. IF

5.5  
L-index

#	Paper	IF	Citations
52	Sea-level rise and warming mediate coastal groundwater discharge in the Arctic. <i>Environmental Research Letters</i> , <b>2022</b> , 17, 045027	6.2	0
51	Complex Vulnerabilities of the Water and Aquatic Carbon Cycles to Permafrost Thaw. <i>Frontiers in Climate</i> , <b>2021</b> , 3,	7.1	3
50	Permafrost Hydrogeology <b>2021</b> , 493-523		2
49	Rapid-Response Unsaturated Zone Hydrology: Small-Scale Data, Small-Scale Theory, Big Problems. <i>Frontiers in Earth Science</i> , <b>2021</b> , 9,	3.5	3
48	Invited perspective: What lies beneath a changing Arctic?. <i>Cryosphere</i> , <b>2021</b> , 15, 479-484	5.5	15
47	Integrating observations and models to determine the effect of seasonally frozen ground on hydrologic partitioning in alpine hillslopes in the Colorado Rocky Mountains, USA. <i>Hydrological Processes</i> , <b>2021</b> , 35, e14374	3.3	1
46	Saltwater Intrusion Intensifies Coastal Permafrost Thaw. <i>Geophysical Research Letters</i> , <b>2021</b> , 48, e2021GL049476	4.9	7
45	Landscape matters: Predicting the biogeochemical effects of permafrost thaw on aquatic networks with a state factor approach. <i>Permafrost and Periglacial Processes</i> , <b>2020</b> , 31, 358-370	4.2	36
44	Wildfire-Initiated Talik Development Exceeds Current Thaw Projections: Observations and Models From Alaska's Continuous Permafrost Zone. <i>Geophysical Research Letters</i> , <b>2020</b> , 47, e2020GL087565	4.9	8
43	Development of perennial thaw zones in boreal hillslopes enhances potential mobilization of permafrost carbon. <i>Environmental Research Letters</i> , <b>2019</b> , 14, 015003	6.2	39
42	Investigating lake-area dynamics across a permafrost-thaw spectrum using airborne electromagnetic surveys and remote sensing time-series data in Yukon Flats, Alaska. <i>Environmental Research Letters</i> , <b>2019</b> , 14, 025001	6.2	21
41	Soil Physical, Hydraulic, and Thermal Properties in Interior Alaska, USA: Implications for Hydrologic Response to Thawing Permafrost Conditions. <i>Water Resources Research</i> , <b>2019</b> , 55, 4427-4447	5.4	20
40	Integrating hydrology and biogeochemistry across frozen landscapes. <i>Nature Communications</i> , <b>2019</b> , 10, 5377	17.4	49
39	Surface Geophysical Methods for Characterising Frozen Ground in Transitional Permafrost Landscapes. <i>Permafrost and Periglacial Processes</i> , <b>2017</b> , 28, 52-65	4.2	23
38	Effect of permafrost thaw on the dynamics of lakes recharged by ice-jam floods: case study of Yukon Flats, Alaska. <i>Hydrological Processes</i> , <b>2016</b> , 30, 1782-1795	3.3	10
37	Implications of projected climate change for groundwater recharge in the western United States. <i>Journal of Hydrology</i> , <b>2016</b> , 534, 124-138	6	215
36	Hydrologic Impacts of Thawing Permafrost: A Review. <i>Vadose Zone Journal</i> , <b>2016</b> , 15, vjz2016.01.0010	2.7	340

35	Multimodel analysis of anisotropic diffusive tracer-gas transport in a deep arid unsaturated zone. <i>Water Resources Research</i> , <b>2015</b> , 51, 6052-6073	5.4	6
34	Sensitivity of airborne geophysical data to sublacustrine and near-surface permafrost thaw. <i>Cryosphere</i> , <b>2015</b> , 9, 781-794	5.5	17
33	New permafrost is forming around shrinking Arctic lakes, but will it last?. <i>Geophysical Research Letters</i> , <b>2014</b> , 41, 1585-1592	4.9	48
32	Using dissolved organic matter age and composition to detect permafrost thaw in boreal watersheds of interior Alaska. <i>Journal of Geophysical Research G: Biogeosciences</i> , <b>2014</b> , 119, 2155-2170	3.7	33
31	Field-Scale Sulfur Hexafluoride Tracer Experiment to Understand Long Distance Gas Transport in the Deep Unsaturated Zone. <i>Vadose Zone Journal</i> , <b>2014</b> , 13, 1-10	2.7	6
30	Spatial variability and landscape controls of near-surface permafrost within the Alaskan Yukon River Basin. <i>Journal of Geophysical Research G: Biogeosciences</i> , <b>2014</b> , 119, 1244-1265	3.7	22
29	Impacts of climate, lake size, and supra- and sub-permafrost groundwater flow on lake-talik evolution, Yukon Flats, Alaska (USA). <i>Hydrogeology Journal</i> , <b>2013</b> , 21, 281-298	3.1	62
28	Extending Airborne Electromagnetic Surveys for Regional Active Layer and Permafrost Mapping with Remote Sensing and Ancillary Data, Yukon Flats Ecoregion, Central Alaska. <i>Permafrost and Periglacial Processes</i> , <b>2013</b> , 24, 184-199	4.2	28
27	Sensitivity analysis of lake mass balance in discontinuous permafrost: the example of disappearing Twelvemile Lake, Yukon Flats, Alaska (USA). <i>Hydrogeology Journal</i> , <b>2013</b> , 21, 185-200	3.1	29
26	Linkages between lake shrinkage/expansion and sublacustrine permafrost distribution determined from remote sensing of interior Alaska, USA. <i>Geophysical Research Letters</i> , <b>2013</b> , 40, 882-887	4.9	64
25	Airborne electromagnetic imaging of discontinuous permafrost. <i>Geophysical Research Letters</i> , <b>2012</b> , 39, n/a-n/a	4.9	107
24	Influence of permafrost distribution on groundwater flow in the context of climate-driven permafrost thaw: Example from Yukon Flats Basin, Alaska, United States. <i>Water Resources Research</i> , <b>2012</b> , 48,	5.4	182
23	Dissolved organic matter composition of winter flow in the Yukon River basin: Implications of permafrost thaw and increased groundwater discharge. <i>Global Biogeochemical Cycles</i> , <b>2012</b> , 26, n/a-n/a	5.9	65
22	Trends in streamflow in the Yukon River Basin from 1944 to 2005 and the influence of the Pacific Decadal Oscillation. <i>Journal of Hydrology</i> , <b>2009</b> , 371, 108-119	6	102
21	Transport of elemental mercury in the unsaturated zone from a waste disposal site in an arid region. <i>Applied Geochemistry</i> , <b>2008</b> , 23, 572-583	3.5	29
20	On the in situ aqueous alteration of soils on Mars. <i>Geochimica Et Cosmochimica Acta</i> , <b>2008</b> , 72, 3845-3864	5.5	44
19	Susceptibility to Enhanced Chemical Migration from Depression-Focused Preferential Flow, High Plains Aquifer. <i>Vadose Zone Journal</i> , <b>2008</b> , 7, 1218-1230	2.7	17
18	Increased groundwater to stream discharge from permafrost thawing in the Yukon River basin: Potential impacts on lateral export of carbon and nitrogen. <i>Geophysical Research Letters</i> , <b>2007</b> , 34,	4.9	356

17	Widespread natural perchlorate in unsaturated zones of the southwest United States. <i>Environmental Science &amp; Technology</i> , <b>2007</b> , 41, 4522-8	10.3	137
16	Multiphase, Multicomponent Parameter Estimation for Liquid and Vapor Fluxes in Deep Arid Systems Using Hydrologic Data and Natural Environmental Tracers. <i>Vadose Zone Journal</i> , <b>2006</b> , 5, 934-950	2.7	26
15	CO <sub>2</sub> dynamics in the Amargosa Desert: Fluxes and isotopic speciation in a deep unsaturated zone. <i>Water Resources Research</i> , <b>2005</b> , 41,	5.4	43
14	ECOHYDROLOGICAL CONTROL OF DEEP DRAINAGE IN ARID AND SEMIARID REGIONS. <i>Ecology</i> , <b>2005</b> , 86, 277-287	4.6	136
13	Hydrologic Processes in Deep Vadose Zones in Interdrainage Arid Environments. <i>Water Science and Application</i> , <b>2004</b> , 15-28		7
12	Constraining the Inferred Paleohydrologic Evolution of a Deep Unsaturated Zone in the Amargosa Desert. <i>Vadose Zone Journal</i> , <b>2004</b> , 3, 502-512	2.7	35
11	Response to Comment on "A Reservoir of Nitrate Beneath Desert Soils". <i>Science</i> , <b>2004</b> , 304, 51c-51c	33.3	2
10	Identifying areas of basin-floor recharge in the Trans-Pecos region and the link to vegetation. <i>Journal of Hydrology</i> , <b>2004</b> , 292, 59-74	6	23
9	Effects of environmental change on groundwater recharge in the desert southwest. <i>Water Science and Application</i> , <b>2004</b> , 273-294		7
8	Constraining the Inferred Paleohydrologic Evolution of a Deep Unsaturated Zone in the Amargosa Desert. <i>Vadose Zone Journal</i> , <b>2004</b> , 3, 502-512	2.7	19
7	A reservoir of nitrate beneath desert soils. <i>Science</i> , <b>2003</b> , 302, 1021-4	33.3	266
6	Deep arid system hydrodynamics 2. Application to paleohydrologic reconstruction using vadose zone profiles from the northern Mojave Desert. <i>Water Resources Research</i> , <b>2002</b> , 38, 27-1-27-12	5.4	35
5	Deep arid system hydrodynamics 1. Equilibrium states and response times in thick desert vadose zones. <i>Water Resources Research</i> , <b>2002</b> , 38, 44-1-44-15	5.4	74
4	A 14.6 kyr record of nitrogen flux from desert soil profiles as inferred from vadose zone pore waters. <i>Geophysical Research Letters</i> , <b>2001</b> , 28, 2955-2958	4.9	30
3	Groundwater flow and geochemistry in the Southeastern San Juan Basin: Implications for microbial transport and activity. <i>Water Resources Research</i> , <b>1999</b> , 35, 1409-1424	5.4	21
2	Thermal and hydrological observations near Twelvemile Lake in discontinuous permafrost, Yukon Flats, interior Alaska, September 2010-August 2011. <i>US Geological Survey Open-File Report</i> ,		4
1	Focused ground-water recharge in the Amargosa Desert basin: Chapter E in Ground-water recharge in the arid and semiarid southwestern United States (Professional Paper 1703). <i>US Geological Survey Professional Paper</i> , 107-136		7