

Kurt Roth

List of Publications by Year in descending order

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Version: 2024-02-01

37
papers

1,261
citations

516710

16
h-index

414414

32
g-index

50
all docs

50
docs citations

50
times ranked

1493
citing authors

#	ARTICLE	IF	CITATIONS
1	Technical Note: Sequential ensemble data assimilation in convergent and divergent systems. <i>Hydrology and Earth System Sciences</i> , 2021, 25, 3319-3329.	4.9	1
2	<i>STH-net</i>: a soil monitoring network for process-based hydrological modelling from the pedon to the hillslope scale. <i>Earth System Science Data</i> , 2021, 13, 2529-2539.	9.9	2
3	Challenges with effective representations of heterogeneity in soil hydrology based on local water content measurements. <i>Vadose Zone Journal</i> , 2020, 19, e20040.	2.2	6
4	Boosting Group-Level Synergies by Using a Shared Modeling Framework. <i>Lecture Notes in Computer Science</i> , 2020, , 442-456.	1.3	2
5	Velocity Field Estimation on Density-Driven Solute Transport With a Convolutional Neural Network. <i>Water Resources Research</i> , 2019, 55, 7275-7293.	4.2	20
6	Efficient estimation of effective hydraulic properties of stratal undulating surface layer using time-lapse multi-channel GPR. <i>Hydrology and Earth System Sciences</i> , 2019, 23, 3653-3663.	4.9	5
7	Covariance resampling for particle filter “state and parameter estimation for soil hydrology. <i>Hydrology and Earth System Sciences</i> , 2019, 23, 1163-1178.	4.9	11
8	Size Distributions of Arctic Waterbodies Reveal Consistent Relations in Their Statistical Moments in Space and Time. <i>Frontiers in Earth Science</i> , 2019, 7, .	1.8	25
9	Soil hydraulic material properties and layered architecture from time-lapse GPR. <i>Hydrology and Earth System Sciences</i> , 2018, 22, 2551-2573.	4.9	13
10	Inflation method for ensemble Kalman filter in soil hydrology. <i>Hydrology and Earth System Sciences</i> , 2018, 22, 4921-4934.	4.9	22
11	A 20-year record (1998-2017) of permafrost, active layer and meteorological conditions at a high Arctic permafrost research site (Bayelva, Spitsbergen). <i>Earth System Science Data</i> , 2018, 10, 355-390.	9.9	47
12	Effect of unrepresented model errors on estimated soil hydraulic material properties. <i>Hydrology and Earth System Sciences</i> , 2017, 21, 4301-4322.	4.9	7
13	PeRL: a Circum-Arctic Permafrost Region Pond and Lake database. <i>Earth System Science Data</i> , 2017, 9, 317-348.	9.9	62
14	EnKF with closed-eye period “towards a consistent aggregation of information in soil hydrology. <i>Hydrology and Earth System Sciences</i> , 2016, 20, 4999-5014.	4.9	22
15	Effects of stratified active layers on high-altitude permafrost warming: a case study on the Qinghai-Tibet Plateau. <i>Cryosphere</i> , 2016, 10, 1591-1603.	3.9	22
16	Mapping Permafrost Features that Influence the Hydrological Processes of a Thermokarst Lake on the Qinghai-Tibet Plateau, China. <i>Permafrost and Periglacial Processes</i> , 2014, 25, 60-68.	3.4	28
17	Ground-penetrating radar for monitoring the distribution of near-surface soil water content in the Gurbantunggut Desert. <i>Environmental Earth Sciences</i> , 2013, 70, 2883-2893.	2.7	12
18	Inverting surface GPR data using FDTD simulation and automatic detection of reflections to estimate subsurface water content and geometry. <i>Geophysics</i> , 2012, 77, H45-H55.	2.6	16

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19	Multi-channel GPR to assess the influence of shallow structural heterogeneity on spatio-temporal variations of near-surface soil water content. , 2012, , .		3
20	Exploring spatial patterns of soil water content in the Urumqi region with Ground-Penetrating Radar. , 2012, , .		2
21	Optimization of multi-channel ground-penetrating radar for quantifying field-scale soil water dynamics. Journal of Applied Geophysics, 2012, 82, 101-109.	2.1	11
22	Permafrost â€œ Physical Aspects, Carbon Cycling, Databases and Uncertainties. , 2012, , 159-185.		20
23	Virtual Soils: Assessment of the Effects of Soil Structure on the Hydraulic Behavior of Cultivated Soils. Vadose Zone Journal, 2012, 11, vj2011.0174.	2.2	29
24	On the reliability of current GPR ground wave methods for determining near-surface water contents. , 2011, , .		6
25	Observation of volumetric water content and reflector depth with multichannel ground-penetrating radar in an artificial sand volume. , 2011, , .		4
26	Water, heat and solute dynamics of a mud boil, Spitsbergen. Geomorphology, 2008, 95, 61-73.	2.6	41
27	Continuous and simultaneous measurement of reflector depth and average soil-water content with multichannel ground-penetrating radar. Geophysics, 2008, 73, J15-J23.	2.6	73
28	Coupling of groundwater and surface water at Lake Willersinnweiher: Groundwater modeling and tracer studies. Aquatic Sciences, 2007, 69, 138-152.	1.5	18
29	A new computational technique for processing transmission-line measurements to determine dispersive dielectric properties. Geophysics, 2006, 71, K31-K35.	2.6	11
30	Quantifying permafrost patterns using Minkowski densities. Permafrost and Periglacial Processes, 2005, 16, 277-290.	3.4	14
31	Estimation of Temporal Changes of Volumetric Soil Water Content from Ground-Penetrating Radar Reflections. Subsurface Sensing Technologies and Applications, 2005, 6, 207-218.	0.9	19
32	Use of dielectric spectroscopy to estimate ice content in frozen porous media. Water Resources Research, 2004, 40, .	4.2	85
33	Seasonal snow cover on frozen ground: Energy balance calculations of a permafrost site near Ny-Å..lesund, Spitsbergen. Journal of Geophysical Research, 2003, 108, ALT 4-1.	3.3	55
34	Quantifying the thermal dynamics of a permafrost site near Ny-Å..lesund, Svalbard. Water Resources Research, 2001, 37, 2901-2914.	4.2	82
35	Time domain reflectometry as a field method for measuring water content and soil water electrical conductivity at a continuous permafrost site. Permafrost and Periglacial Processes, 1997, 8, 359-370.	3.4	15
36	Steady State Flow in an Unsaturated, Two-Dimensional, Macroscopically Homogeneous, Miller-Similar Medium. Water Resources Research, 1995, 31, 2127-2140.	4.2	135

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37	Calibration of time domain reflectometry for water content measurement using a composite dielectric approach. <i>Water Resources Research</i> , 1990, 26, 2267-2273.	4.2	310