Insa Neuweiler

List of Publications by Year
in descending order

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47	860	471509	501196
papers	citations	17	28
		h-index	g-index

55	55	55	1198
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	An ensemble neural network model for real-time prediction of urban floods. Journal of Hydrology, 2019, 575, 743-754.	5.4	128
2	Simulation of Solute Transport Through Fractured Rock: A Higher-Order Accurate Finite-Element Finite-Volume Method Permitting Large Time Steps. Transport in Porous Media, 2010, 83, 289-318.	2.6	51
3	Impact of sampling volume on the probability density function of steady state concentration. Water Resources Research, 2008, 44, .	4.2	49
4	Homogenization of Richards equation in permeability fields with different connectivities. Water Resources Research, 2005, 41, .	4.2	47
5	Probability density functions of hydraulic head and velocity in threeâ€dimensional heterogeneous porous media. Water Resources Research, 2008, 44, .	4.2	44
6	Upscaling for unsaturated flow for non-Gaussian heterogeneous porous media. Water Resources Research, 2007, 43, .	4.2	39
7	Biofilm formation by the oral pioneer colonizer Streptococcus gordonii: an experimental and numerical study. FEMS Microbiology Ecology, 2017, 93, .	2.7	31
8	Modeling Overpotentials Related to Mass Transport Through Porous Transport Layers of PEM Water Electrolysis Cells. Journal of the Electrochemical Society, 2020, 167, 114511.	2.9	31
9	Experimental and theoretical investigations of drainage in horizontal rough-walled fractures with different correlation structures. Advances in Water Resources, 2004, 27, 1217-1231.	3.8	29
10	Modeling Immiscible Twoâ€Phase Flow in Rough Fractures From Capillary to Viscous Fingering. Water Resources Research, 2019, 55, 2033-2056.	4.2	28
11	Effects of flow interruption on transport and retention of iron oxide colloids in quartz sand. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2017, 520, 532-543.	4.7	27
12	Fluid trapping during capillary displacement in fractures. Advances in Water Resources, 2016, 95, 264-275.	3.8	24
13	A coupled approach for the three-dimensional simulation of pipe leakage in variably saturated soil. Journal of Hydrology, 2017, 555, 569-585.	5.4	24
14	A new approach to determine the relative importance of DLVO and non-DLVO colloid retention mechanisms in porous media. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2019, 560, 330-335.	4.7	24
15	A non-local two-phase flow model for immiscible displacement in highly heterogeneous porous media and its parametrization. Advances in Water Resources, 2013, 62, 475-487.	3.8	23
16	Multi-rate mass transfer modeling of two-phase flow in highly heterogeneous fractured and porous media. Advances in Water Resources, 2016, 91, 63-77.	3.8	22
17	Physically based modeling of stormwater pipe leakage in an urban catchment. Journal of Hydrology, 2019, 573, 778-793.	5.4	19
18	Modeling of contaminant transport during an urban pluvial flood event â€“ The importance of surface flow. Journal of Hydrology, 2019, 568, 301-310.	5.4	19

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19	Effective Parameter Functions for the Richards Equation in Layered Porous Media. Vadose Zone Journal, 2006, 5, 963-977.	2.2	18
20	Solute Transport in Heterogeneous Soil with Timeâ€Dependent Boundary Conditions. Vadose Zone Journal, 2016, 15, 1-17.	2.2	18
21	Upscaling of Two-Phase Flow Processes in Porous Media. , 2005, , 237-257.		17
22	Estimation of effective parameters for a two-phase flow problem in non-Gaussian heterogeneous porous media. Journal of Contaminant Hydrology, 2011, 120-121, 141-156.	3.3	17
23	A Non-Local Richards Equation to Model Unsaturated Flow in Highly Heterogeneous Media under Nonequilibrium Pressure Conditions. Vadose Zone Journal, 2012, 11, vzj2011.0132.	2.2	13
24	Upscaling unsaturated flow in binary porous media with air entry pressure effects. Water Resources Research, 2012, 48, .	4.2	13
25	Sequential Coupling of Models for Contaminant Spreading in the Vadose Zone. Vadose Zone Journal, 2008, 7, 721-731.	2.2	11
26	Modeling gasâ€water processes in fractures with fracture flow properties obtained through upscaling. Water Resources Research, 2010, 46, .	4.2	11
27	The impact of buoyancy on front spreading in heterogeneous porous media in twoâ€phase immiscible flow. Water Resources Research, 2011, 47, .	4.2	9
28	Joint editorial: Fostering innovation and improving impact assessment for journal publications in hydrology. Water Resources Research, 2016, 52, 2399-2402.	4.2	9
29	Debatesâ€”Hypothesis testing in hydrology: A subsurface perspective. Water Resources Research, 2017, 53, 1784-1791.	4.2	9
30	A time-space flux-corrected transport finite element formulation for solving multi-dimensional advection-diffusion-reaction equations. Journal of Computational Physics, 2019, 396, 31-53.	3.8	9
31	Joint editorial â€“ Fostering innovation and improving impact assessment for journal publications in hydrology. Hydrological Sciences Journal, 0, , 1-4.	2.6	8
32	Coupling saturated and unsaturated flow: comparing the iterative and the non-iterative approach. Hydrology and Earth System Sciences, 2021, 25, 4041-4059.	4.9	6
33	Influence of heterogeneous air entry pressure on large scale unsaturated flow in porous media. Acta Geophysica, 2014, 62, 1179-1191.	2.0	5
34	Experimental and Numerical Analysis of Air Trapping in a Porous Medium with Coarse Textured Inclusions. Acta Geophysica, 2016, 64, 2487-2509.	2.0	5
35	Modeling of Symbiotic Bacterial Biofilm Growth with an Example of the Streptococcusâ€“Veillonella sp. System. Bulletin of Mathematical Biology, 2021, 83, 48.	1.9	5
36	Presentation and discussion of the high-resolution atmosphereâ€“land-surfaceâ€“subsurface simulation dataset of the simulated Neckar catchment for the period 2007â€“2015. Earth System Science Data, 2021, 13, 4437-4464.	9.9	4

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37	Quantitative links between porous media structures and flow behavior across scales. Advances in Water Resources, 2008, 31, 1127-1128.	3.8	3
38	Noise-driven interfaces and their macroscopic representation. Physical Review E, 2016, 94, 052802.	2.1	2
39	Joint Editorial: Fostering innovation and improving impact assessment for journal publications in hydrology. Hydrology and Earth System Sciences, 2016, 20, 1081-1084.	4.9	2
40	Joint Editorialâ€"Fostering Innovation and Improving Impact Assessment for Journal Publications in Hydrology. Vadose Zone Journal, 2016, 15, 1-4.	2.2	1
41	Generation of Stormwater Drainage Networks Using Spatial Data. Green Energy and Technology, 2019, , 576-581.	0.6	1
42	A Deeper Insight of a Multi-dimensional Continuum Biofilm Growth Model: Experimental Observation and Parameter Studies. Lecture Notes in Applied and Computational Mechanics, 2018, , 257-272.	2.2	1
43	Performance of nearest neighbour metrics for pluvial flood nowcasts in urban catchments. Journal of Hydrology, 2022, 604, 127225.	5.4	1
44	Infiltration of DNAPL into heterogeneous water-saturated soil with different connectivity properties. Developments in Water Science, 2004, 55, 313-324.	0.1	0
45	A timeâ€space FCTâ€FE formulation for 1D time dependent advectionâ€diffusion equation. Proceedings in Applied Mathematics and Mechanics, 2018, 18, e201800244.	0.2	0
46	Numerical modeling of the mechanical response of bacterial biofilm to flow by using an SPH poroviscoelastic model. Proceedings in Applied Mathematics and Mechanics, 2021, 20, e202000214.	0.2	0
47	Forecasting Pollution Transport in Drainage Water. Green Energy and Technology, 2019, , 701-705.	0.6	0