Wolfram Rühaak

List of Publications by Year
in descending order

41 papers	1,122 citations	430442 18 h-index	395343 33 g-index
55 all docs	55 docs citations	55 times ranked	1022 citing authors

#	Article	IF	Citations
1	Finite element modeling of borehole heat exchanger systems. Computers and Geosciences, 2011, 37, 1122-1135.	2.0	145
2	Finite element modeling of borehole heat exchanger systems. Computers and Geosciences, 2011, 37, 1136-1147.	2.0	137
3	Groundwater flow and heat transport for systems undergoing freeze-thaw: Intercomparison of numerical simulators for 2D test cases. Advances in Water Resources, 2018, 114, 196-218.	1.7	91
4	Processing of rock core microtomography images: Using seven different machine learning algorithms. Computers and Geosciences, 2016, 86, 120-128.	2.0	80
5	Characteristics of medium deep borehole thermal energy storage. International Journal of Energy Research, 2016, 40, 1855-1868.	2.2	75
6	Seasonal High Temperature Heat Storage with Medium Deep Borehole Heat Exchangers. Energy Procedia, 2015, 76, 351-360.	1.8	64
7	Numerical Modeling of Geothermal Use of Mine Water: Challenges and Examples. Mine Water and the Environment, 2009, 28, 2-14.	0.9	41
8	Phase segmentation of X-ray computer tomography rock images using machine learning techniques: an accuracy and performance study. Solid Earth, 2016, 7, 1125-1139.	1.2	40
9	Benchmarking Numerical Freeze/Thaw Models. Energy Procedia, 2015, 76, 301-310.	1.8	31
10	3D finite volume groundwater and heat transport modeling with non-orthogonal grids, using a coordinate transformation method. Advances in Water Resources, 2008, 31, 513-524.	1.7	29
11	Optimization of Medium€Deep Borehole Thermal Energy Storage Systems. Energy Technology, 2016, 4, 104-113.	1.8	29
12	Upscaling thermal conductivities of sedimentary formations for geothermal exploration. Geothermics, 2015, 58, 49-61.	1.5	28
13	On the impact of explicitly predicted runoff on the simulated atmospheric response to small-scale land-use changes€"an integrated modeling approach. Atmospheric Research, 2002, 63, 3-38.	1.8	24
14	Over Exploitation of Groundwater in the Centre of Amman Zarqa Basin€"Jordan: Evaluation of Well Data and GRACE Satellite Observations. Resources, 2015, 4, 819-830.	1.6	24
15	Detecting thermal anomalies within the Molasse Basin, southern Germany. Hydrogeology Journal, 2010, 18, 1897-1915.	0.9	22
16	Dynamic numerical modeling of the usage of groundwater for cooling in north east Jordan â€" A geothermal case study. Renewable Energy, 2014, 62, 63-72.	4.3	20
17	3-D interpolation of subsurface temperature data with measurement error using kriging. Environmental Earth Sciences, 2015, 73, 1893-1900.	1.3	20
18	Modeling insulated borehole heat exchangers. Environmental Earth Sciences, 2016, 75, 1.	1.3	19

#	Article	IF	Citations
19	Relevance of computing freeze-thaw effects for borehole heat exchanger modelling: A comparative case study. Geothermics, 2019, 79, 164-175.	1.5	19
20	A Java application for quality weighted 3-d interpolation. Computers and Geosciences, 2006, 32, 43-51.	2.0	18
21	Using seismic data to estimate the spatial distribution of rock thermal conductivity at reservoir scale. Geothermics, 2017, 66, 61-72.	1.5	18
22	Combining Numerical Modeling with Geostatistical Interpolation for an Improved Reservoir Exploration. Energy Procedia, 2014, 59, 315-322.	1.8	16
23	BASIMO â€" Borehole Heat Exchanger Array Simulation and Optimization Tool. Energy Procedia, 2016, 97, 210-217.	1.8	16
24	Thermo-hydro-mechanical-chemical coupled modeling of a geothermally used fractured limestone. International Journal of Rock Mechanics and Minings Sciences, 2017, 100, 40-47.	2.6	15
25	3D hydro-mechanically coupled groundwater flow modelling of Pleistocene glaciation effects. Computers and Geosciences, 2014, 67, 89-99.	2.0	14
26	Numerical simulation of a freezeâ€"thaw testing procedure for borehole heat exchanger grouts. Canadian Geotechnical Journal, 2015, 52, 1087-1100.	1.4	14
27	Fully hydro-mechanical coupled Plug-in (SUB+) in FEFLOW for analysis of land subsidence due to groundwater extraction. SoftwareX, 2019, 9, 15-19.	1.2	13
28	Thermal strain in a water-saturated limestone under hydrostatic and deviatoric stress states. Tectonophysics, 2016, 688, 49-64.	0.9	12
29	Thermo-Triax: An Apparatus for Testing Petrophysical Properties of Rocks Under Simulated Geothermal Reservoir Conditions. Geotechnical Testing Journal, 2014, 38, 20140056.	0.5	11
30	Co-Simulation of Geothermal Applications and HVAC Systems. Energy Procedia, 2017, 125, 345-352.	1.8	7
31	CobWeb 1.0: machine learning toolbox for tomographic imaging. Geoscientific Model Development, 2020, 13, 315-334.	1.3	6
32	Preliminary safety analyses in the high-level radioactive waste site selection procedure in Germany. Advances in Geosciences, 0, 56, 67-75.	12.0	6
33	The role of geological models and uncertainties in safety assessments. Environmental Earth Sciences, 2022, 81, 1.	1.3	5
34	Application of the Vimokeâ€"Taylor concept for fully coupled models of consolidation by prefabricated vertical drains. Computers and Geotechnics, 2019, 116, 103201.	2.3	4
35	Fully coupled analysis of consolidation by prefabricated vertical drains with applications of constant strain rate tests: Case studies and an open-source program. Geotextiles and Geomembranes, 2020, 48, 380-391.	2.3	2
36	Preliminary safety assessments in the high-level radioactive waste site selection procedure in Germany. , 0, 1, 37-38.		1

#	Article	IF	Citations
37	From process to system understanding with multi-disciplinary investigation methods: set-up and first results of the CD-A experiment (Mont Terri rock laboratory). , 0, 1, 79-81.		1
38	Comparison of Micro X-ray Computer Tomography Image Segmentation Methods: Artificial Neural Networks Versus Least Square Support Vector Machine. Lecture Notes in Earth System Sciences, 2014, , 141-145.	0.5	0
39	Poroelastic Effects in an Enhanced Geothermal Reservoir, Horstberg, Germany. , 2017, , .		0
40	Advanced shallow geothermal systems: Temperature induced cracking of backfill materials and system hydraulic conductivity. , 2016, , 203-208.		0
41	Development of a database for the analysis of the disposal system in the representative preliminary safety analysis. , 0, 1, 39-40.		0