

# Wenqing Wang

## List of Publications by Year in descending order

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70  
papers

2,078  
citations

304368

22  
h-index

243296

44  
g-index

79  
all docs

79  
docs citations

79  
times ranked

1544  
citing authors

#	ARTICLE	IF	CITATIONS
1	OpenGeoSys: an open-source initiative for numerical simulation of thermo-hydro-mechanical/chemical (THM/C) processes in porous media. <i>Environmental Earth Sciences</i> , 2012, 67, 589-599.	1.3	514
2	A parallel finite element scheme for thermo-hydro-mechanical (THM) coupled problems in porous media. <i>Computers and Geosciences</i> , 2009, 35, 1631-1641.	2.0	120
3	Uncertainty analysis of thermo-hydro-mechanical coupled processes in heterogeneous porous media. <i>Computational Mechanics</i> , 2010, 45, 263-280.	2.2	116
4	Object-oriented finite element analysis of thermo-hydro-mechanical (THM) problems in porous media. <i>International Journal for Numerical Methods in Engineering</i> , 2007, 69, 162-201.	1.5	95
5	The risks of long-term re-injection in supercritical geothermal systems. <i>Nature Communications</i> , 2019, 10, 4391.	5.8	74
6	Non-isothermal flow in low permeable porous media: a comparison of Richards's and two-phase flow approaches. <i>Environmental Earth Sciences</i> , 2011, 62, 1197-1207.	1.3	68
7	Finite element analysis of poro-elastic consolidation in porous media: Standard and mixed approaches. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2006, 195, 1096-1115.	3.4	64
8	The IWAS-ToolBox: Software coupling for an integrated water resources management. <i>Environmental Earth Sciences</i> , 2012, 65, 1367-1380.	1.3	55
9	Results from an International Simulation Study on Coupled Thermal, Hydrological, and Mechanical Processes near Geological Nuclear Waste Repositories. <i>Nuclear Technology</i> , 2008, 163, 101-109.	0.7	54
10	A comparative simulation study of coupled THM processes and their effect on fractured rock permeability around nuclear waste repositories. <i>Environmental Geology</i> , 2009, 57, 1347-1360.	1.2	50
11	Lower-dimensional interface elements with local enrichment: application to coupled hydro-mechanical problems in discretely fractured porous media. <i>International Journal for Numerical Methods in Engineering</i> , 2012, 90, 1010-1034.	1.5	43
12	A systematic benchmarking approach for geologic CO <sub>2</sub> injection and storage. <i>Environmental Earth Sciences</i> , 2012, 67, 613-632.	1.3	41
13	Numerical analysis of the groundwater regime in the western Dead Sea escarpment, Israel's West Bank. <i>Environmental Earth Sciences</i> , 2013, 69, 571-585.	1.3	41
14	Coupled multiphase flow and elasto-plastic modelling of in-situ gas injection experiments in saturated claystone (Mont Terri Rock Laboratory). <i>Engineering Geology</i> , 2013, 157, 55-68.	2.9	40
15	Geometric modelling and object-oriented software concepts applied to a heterogeneous fractured network from the Grimsel rock laboratory. <i>Computational Geosciences</i> , 2007, 11, 9-26.	1.2	39
16	Coupling hydrogeological with surface runoff model in a Poltva case study in Western Ukraine. <i>Environmental Earth Sciences</i> , 2012, 65, 1439-1457.	1.3	35
17	Numerical Simulation of Multiphase Hydromechanical Processes Induced by CO <sub>2</sub> Injection into Deep Saline Aquifers. <i>Oil and Gas Science and Technology</i> , 2011, 66, 105-118.	1.4	34
18	A Dynamic Flow Simulation Code Intercomparison based on the Revised Static Model of the Ketzin Pilot Site. <i>Energy Procedia</i> , 2013, 40, 418-427.	1.8	33

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19	A coupled surface/subsurface flow model accounting for air entrapment and air pressure counterflow. <i>Environmental Earth Sciences</i> , 2013, 69, 395-414.	1.3	29
20	Development of a 3D groundwater model based on scarce data: the Wadi Kafrein catchment/Jordan. <i>Environmental Earth Sciences</i> , 2011, 64, 771-785.	1.3	25
21	Groundwater drawdown at Nankou site of Beijing Plain: model development and calibration. <i>Environmental Earth Sciences</i> , 2011, 64, 1323-1333.	1.3	25
22	A dual reciprocity boundary element approach for the problems of large deflection of thin elastic plates. <i>Computational Mechanics</i> , 2000, 26, 58-65.	2.2	22
23	Development and application of a CAD interface for fractured rock. <i>Environmental Geology</i> , 2005, 47, 1017-1027.	1.2	22
24	A parallel finite element method for two-phase flow processes in porous media: OpenGeoSys with PETSc. <i>Environmental Earth Sciences</i> , 2015, 73, 2269-2285.	1.3	21
25	Evaluation of the predictive capability of coupled thermo-hydro-mechanical models for a heated bentonite/clay system (HE-E) in the Mont Terri Rock Laboratory. <i>Environmental Earth Sciences</i> , 2017, 76, 1.	1.3	21
26	Are upwind techniques in multi-phase flow models necessary?. <i>Journal of Computational Physics</i> , 2011, 230, 8304-8312.	1.9	20
27	Groundwater deterioration in Nankou—a suburban area of Beijing: data assessment and remediation scenarios. <i>Environmental Earth Sciences</i> , 2012, 67, 1573-1586.	1.3	20
28	Numerical modeling of heating and hydration experiments on bentonite pellets. <i>Engineering Geology</i> , 2015, 198, 94-106.	2.9	20
29	A method for linear elasto-static analysis of multi-layered axisymmetrical bodies using Hankel's transform. <i>Computational Mechanics</i> , 2001, 27, 474-483.	2.2	19
30	Coupled 3-D thermo-hydro-mechanical analysis of geotechnological in situ tests. <i>International Journal of Rock Mechanics and Minings Sciences</i> , 2011, 48, 1-15.	2.6	19
31	Numerical simulation of two-phase flow in deformable porous media: Application to carbon dioxide storage in the subsurface. <i>Mathematics and Computers in Simulation</i> , 2012, 82, 1919-1935.	2.4	19
32	Comparative modelling of the coupled thermal–hydraulic-mechanical (THM) processes in a heated bentonite pellet column with hydration. <i>Environmental Earth Sciences</i> , 2018, 77, 1.	1.3	19
33	Improved regional-scale groundwater representation by the coupling of the mesoscale Hydrologic Model (mHM v5.7) to the groundwater model OpenGeoSys (OGS). <i>Geoscientific Model Development</i> , 2018, 11, 1989-2007.	1.3	18
34	A sub-stepping approach for elasto-plasticity with rotational hardening. <i>Computational Mechanics</i> , 2006, 37, 266-278.	2.2	16
35	Numerical Modelling of Swelling Pressure in Unsaturated Expansive Elasto-Plastic Porous Media. <i>Transport in Porous Media</i> , 2007, 66, 311-339.	1.2	16
36	Numerical analysis of thermal impact on hydro-mechanical properties of clay. <i>Journal of Rock Mechanics and Geotechnical Engineering</i> , 2014, 6, 405-416.	3.7	16

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37	Parallel finite element modelling of multi-physical processes in thermochemical energy storage devices. <i>Applied Energy</i> , 2017, 185, 1954-1964.	5.1	16
38	Modeling Soil-Coupled Water Uptake of Multiple Root Systems with Automatic Time Stepping. <i>Vadose Zone Journal</i> , 2011, 10, 727-735.	1.3	15
39	Screening the geomechanical stability (thermal and mechanical) of shared multi-user CO <sub>2</sub> storage assets: A simple effective tool applied to the Captain Sandstone Aquifer. <i>International Journal of Greenhouse Gas Control</i> , 2016, 45, 43-61.	2.3	14
40	Non-isothermal effects on two-phase flow in porous medium: CO <sub>2</sub> disposal into a saline aquifer. <i>Energy Procedia</i> , 2011, 4, 3889-3895.	1.8	12
41	Development of a regional hydrologic soil model and application to the Beerze-Reusel drainage basin. <i>Environmental Pollution</i> , 2007, 148, 855-866.	3.7	11
42	Convergence analysis for a mixed finite element scheme for flow in strictly unsaturated porous media. <i>Nonlinear Analysis: Real World Applications</i> , 2014, 15, 266-275.	0.9	11
43	Analysis of coupled thermal-hydro-mechanical processes during small scale in situ heater experiment in Callovo-Oxfordian clay rock introducing a failure-index permeability model. <i>International Journal of Rock Mechanics and Minings Sciences</i> , 2021, 142, 104683.	2.6	11
44	Front Tracking Using a Hybrid Analytical Finite Element Approach for Two-Phase Flow Applied to Supercritical CO <sub>2</sub> Replacing Brine in a Heterogeneous Reservoir and Caprock. <i>Transport in Porous Media</i> , 2011, 90, 545-573.	1.2	10
45	Object-oriented programming in boundary element methods using C++. <i>Advances in Engineering Software</i> , 1999, 30, 127-132.	1.8	9
46	Development and parameterisation of a complex hydrogeological model based on high-resolution direct-push data. <i>Environmental Geology</i> , 2007, 52, 1399-1412.	1.2	9
47	New Experimental Equipment Recreating Geo-Reservoir Conditions in Large, Fractured, Porous Samples to Investigate Coupled Thermal, Hydraulic and Polyaxial Stress Processes. <i>Scientific Reports</i> , 2018, 8, 14549.	1.6	9
48	Analysis of coupled thermal-hydro-mechanical processes in Callovo-Oxfordian clay rock: From full-scale experiments to the repository scale. <i>Engineering Geology</i> , 2021, 293, 106265.	2.9	8
49	A Benchmark Study on Non-isothermal Compositional Fluid Flow. <i>Energy Procedia</i> , 2013, 37, 3901-3910.	1.8	6
50	Mathematical Aspects of Meshless Methods. <i>Mathematical Problems in Engineering</i> , 2014, 2014, 1-4.	0.6	6
51	Sparse Matrix and Solver Objects for Parallel Finite Element Simulation of Multi-field Problems. <i>Lecture Notes in Computer Science</i> , 2010, , 418-425.	1.0	5
52	An inverse method for determining material properties of a multi-layer medium by boundary element method. <i>International Journal of Solids and Structures</i> , 2001, 38, 8907-8920.	1.3	4
53	Hydromechanical modelling of the SEALEX experiments. <i>Environmental Earth Sciences</i> , 2017, 76, 1.	1.3	4
54	Hydro-mechanical fault reactivation modeling based on elasto-plasticity with embedded weakness planes. <i>Journal of Rock Mechanics and Geotechnical Engineering</i> , 2020, 12, 877-885.	3.7	4

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55	The OGS-Eclipse code for simulation of coupled multiphase flow and geomechanical processes in the subsurface. <i>Computational Geosciences</i> , 2020, 24, 1315-1331.	1.2	4
56	PARALLELIZATION CONCEPTS AND APPLICATIONS FOR THM COUPLED FINITE ELEMENT PROBLEMS. <i>Journal of Environmental Science for Sustainable Society</i> , 2008, 2, 35-46.	0.1	4
57	Solving Coupled Geoscience Problems on High Performance Computing Platforms. <i>Lecture Notes in Computer Science</i> , 2005, , 1064-1071.	1.0	3
58	Comments on "A mass-conservative switching algorithm for modeling fluid flow in variably saturated porous media, K. Sadegh Zadeh, <i>Journal of Computational Physics</i> , 230 (2011)" <i>Journal of Computational Physics</i> , 2015, 295, 815-820.	1.9	2
59	A New Mechanistic Approach to Simulating Swelling Processes in Bentonite Materials. <i>Elsevier Geo-Engineering Book Series</i> , 2004, , 323-328.	0.0	1
60	Automatic time stepping with Newton-Raphson method for two-phase fluid flow in porous media. , 2013, , .		1
61	A Parallel FEM Scheme for the Simulation of Large Scale Thermochemical Energy Storage with Complex Geometries using PETSc Routines. <i>Energy Procedia</i> , 2015, 75, 2080-2086.	1.8	1
62	Deformation Processes. <i>Lecture Notes in Computational Science and Engineering</i> , 2012, , 161-199.	0.1	1
63	Hydraulic Characterisation of Clay Rock Under Consideration of Coupled THM Properties. <i>Environmental Science and Engineering</i> , 2019, , 33-40.	0.1	1
64	A boundary element analysis of the linear elasto-static axisymmetric contact problem of an infinite layered medium with a homogeneous body. <i>Advances in Engineering Software</i> , 2003, 34, 235-244.	1.8	0
65	Programm- und Softwareentwicklung für Grundwassermodellierung. <i>Grundwasser</i> , 2010, 15, 145-145.	1.4	0
66	Code Descriptions. <i>Terrestrial Environmental Sciences</i> , 2021, , 243-254.	0.5	0
67	Consolidation (H n M) Processes. <i>Lecture Notes in Computational Science and Engineering</i> , 2012, , 269-298.	0.1	0
68	Multiphase Flow Processes. <i>Lecture Notes in Computational Science and Engineering</i> , 2012, , 247-268.	0.1	0
69	The Mont Terri HE-D Experiment as a Benchmark for the Simulation of Coupled THM Processes. , 2013, , .		0
70	High performance computing in simulation of coupled thermal, hydraulic and mechanical processes in transverse isotropic rock. , 2013, , 485-490.		0