Mauro Cacace

List of Publications by Year
in descending order

#	Article	IF	Citations
1	Flexible parallel implicit modelling of coupled thermalâ€“hydraulicâ€“mechanical processes in fractured rocks. Solid Earth, 2017, 8, 921-941.	1.2	66
2	Modelling of fractured carbonate reservoirs: outline of a novel technique via a case study from the Molasse Basin, southern Bavaria, Germany. Environmental Earth Sciences, 2013, 70, 3585-3602.	1.3	61
3	The Kenya rift revisited: insights into lithospheric strength through data-driven 3-D gravity and thermal modelling. Solid Earth, 2017, 8, 45-81.	1.2	47
4	Models of heat transport in the Central European Basin System: Effective mechanisms at different scales. Marine and Petroleum Geology, 2014, 55, 315-331.	1.5	41
5	Geothermal energy in sedimentary basins: What we can learn from regional numerical models. Chemie Der Erde, 2010, 70, 33-46.	0.8	40
6	Influence of fluid flow on the regional thermal field: results from 3D numerical modelling for the area of Brandenburg (North German Basin). Environmental Earth Sciences, 2013, 70, 3523-3544.	1.3	39
7	Sensitivity of 3D thermal models to the choice of boundary conditions and thermal properties: a case study for the area of Brandenburg (NE German Basin). Environmental Earth Sciences, 2012, 67, 1695-1711.	1.3	37
8	MeshItâ€"a software for three dimensional volumetric meshing of complex faulted reservoirs. Environmental Earth Sciences, 2015, 74, 5191-5209.	1.3	36
9	Numerical Investigation of Thermoelastic Effects on Fault Slip Tendency during Injection and Production of Geothermal Fluids. Energy Procedia, 2015, 76, 311-320.	1.8	34
10	Impact of single inclined faults on the fluid flow and heat transport: results from 3-D finite element simulations. Environmental Earth Sciences, 2013, 70, 3603-3618.	1.3	33
11	Deep 3D thermal modelling for the city of Berlin (Germany). Environmental Earth Sciences, 2013, 70, 3545-3566.	1.3	32
12	Characterization of main heat transport processes in the Northeast German Basin: Constraints from 3-D numerical models. Geochemistry, Geophysics, Geosystems, 2011, 12, n/a-n/a.	1.0	31
13	Evaluating Micro-Seismic Events Triggered by Reservoir Operations at the Geothermal Site of GroÃŸ SchÃ¶nebeck (Germany). Rock Mechanics and Rock Engineering, 2018, 51, 3265-3279.	2.6	31
14	Why intracontinental basins subside longer: 3â€Đ feedback effects of lithospheric cooling and sedimentation on the flexural strength of the lithosphere. Journal of Geophysical Research: Solid Earth, 2016, 121, 3742-3761.	1.4	29
15	Thermo-poroelastic numerical modelling for enhanced geothermal system performance: Case study of the GroÃŸ SchÃ¶nebeck reservoir. Tectonophysics, 2016, 684, 119-130.	0.9	29
16	Influence of major fault zones on 3-D coupled fluid and heat transport for the Brandenburg region (NE German Basin). Geothermal Energy Science, 2014, 2, 1-20.	1.1	29
17	Controls on the deep thermal field: implications from 3-D numerical simulations for the geothermal research site GroÃŸ SchÃ¶nebeck. Environmental Earth Sciences, 2013, 70, 3619-3642.	1.3	25
18	Reconstruction of the southwestern African continental margin by backward modeling. Marine and Petroleum Geology, 2015, 67, 544-555.	1.5	25

#	Article	IF	Citations
19	Evaluation of three exploitation concepts for a deep geothermal system in the North German Basin. Computers and Geosciences, 2015, 82, 120-129.	2.0	24
20	3D coupled fluid and heat transport simulations of the Northeast German Basin and their sensitivity to the spatial discretization: different sensitivities for different mechanisms of heat transport. Environmental Earth Sciences, 2013, 70, 3643-3659.	1.3	23
21	Three dimensional modelling of fractured and faulted reservoirs: Framework and implementation. Chemie Der Erde, 2010, 70, 145-153.	0.8	22
22	Influence of the Main Border Faults on the 3D Hydraulic Field of the Central Upper Rhine Graben. Geofluids, 2019, 2019, 1-21.	0.3	19
23	Permeability distribution in the Lahendong geothermal field: A blind fault captured by thermalâ€“hydraulic simulation. Environmental Earth Sciences, 2016, 75, 1.	1.3	18
24	Thermal solar energy storage in Jurassic aquifers in Northeastern Germany: A simulation study. Renewable Energy, 2017, 104, 290-306.	4.3	18
25	Permeability of matrix-fracture systems under mechanical loading â€“ constraints from laboratory experiments and 3-D numerical modelling. Advances in Geosciences, 0, 49, 95-104.	12.0	18
26	Multiphysics Modeling of a Brittleâ€Ductile Lithosphere: 1. Explicit Viscoâ€Elastoâ€Plastic Formulation and Its Numerical Implementation. Journal of Geophysical Research: Solid Earth, 2020, 125, e2019JB018474.	1.4	17
27	Gas Hydrate Stability Zone of the Barents Sea and Kara Sea Region. Energy Procedia, 2016, 97, 302-309.	1.8	16
28	Modelling of multi-lateral well geometries forÂgeothermalÂapplications. Advances in Geosciences, 0, 45, 209-215.	12.0	15
29	Far field poroelastic response of geothermal reservoirs to hydraulic stimulation treatment: Theory and application at the GroÃŸ SchÃ¶nebeck geothermal research facility. International Journal of Rock Mechanics and Minings Sciences, 2018, 110, 316-327.	2.6	14
30	The 3D thermal field across the Alpine orogen and its forelands and the relation to seismicity. Global and Planetary Change, 2020, 193, 103288.	1.6	14
31	Multiphysics Modeling of a Brittleâ€Ductile Lithosphere: 2. Semiâ€brittle, Semiâ€ductile Deformation and Damage Rheology. Journal of Geophysical Research: Solid Earth, 2020, 125, e2019JB018475.	1.4	13
32	Projecting seismicity induced by complex alterations of underground stresses with applications to geothermal systems. Scientific Reports, 2021, 11, 23560.	1.6	12
33	Backward modelling of the subsidence evolution of the Colorado Basin, offshore Argentina and its relation to the evolution of the conjugate Orange Basin, offshore SW Africa. Tectonophysics, 2017, 716, 168-181.	0.9	11
34	The Effects of Regional Fluid Flow on Deep Temperatures (Hesse, Germany). Energies, 2019, 12, 2081.	1.6	10
35	Longâ€Term Lithospheric Strength and Upperâ€Plate Seismicity in the Southern Central Andes, 29Â°â€“39Â°S. Geochemistry, Geophysics, Geosystems, 2022, 23, .	1.0	10
36	Hydro-Mechanical Evolution of Transport Properties in Porous Media: Constraints for Numerical Simulations. Transport in Porous Media, 2015, 110, 409-428.	1.2	9

#	Article	IF	Citations
37	Numerical modeling as a tool for evaluating the renewability of geothermal resources: the case study of the Euganean Geothermal System (NE Italy). Environmental Geochemistry and Health, 2022, 44, 2135-2162.	1.8	9
38	Regional hydraulic model of the Upper Rhine Graben. Advances in Geosciences, 0, 49, 197-206.	12.0	9
39	Quaternary channels within the Northeast German Basin and their relevance on double diffusive convective transport processes: Constraints from 3â€Đ thermohaline numerical simulations. Geochemistry, Geophysics, Geosystems, 2013, 14, 3156-3175.	1.0	8
40	Sensitivity of a 3D Geothermal Model of Berlin with Respect to Upper Boundary Conditions. Energy Procedia, 2015, 76, 291-300.	1.8	8
41	Geoenergy Modeling III. SpringerBriefs in Energy, 2017, , .	0.2	8
42	Hydraulic Diffusivity of a Partially Open Rough Fracture. Rock Mechanics and Rock Engineering, 2021, 54, 5493-5515.	2.6	8
43	Strain localization due to structural in-homogeneities in the Central European Basin System. International Journal of Earth Sciences, 2008, 97, 899-913.	0.9	7
44	Coupled thermo-mechanical 3D subsidence analysis along the SW African passive continental margin. Arabian Journal of Geosciences, 2016, 9, 1.	0.6	7
45	Modelling coupled fluid flow and heat transfer in fractured reservoirs: description of a 3D benchmark numerical case. Energy Procedia, 2017, 125, 612-621.	1.8	7
46	Surface to Groundwater Interactions beneath the City of Berlin: Results from 3D Models. Geofluids, 2019, 2019, 1-22.	0.3	7
47	Influence of Lithosphere Rheology on Seismicity in an Intracontinental Rift: The Case of the Rhine Graben. Frontiers in Earth Science, 2020, 8, .	0.8	7
48	Fault Control on a Thermal Anomaly: Conceptual and Numerical Modeling of a Lowâ€Temperature Geothermal System in the Southern Alps Foreland Basin (NE Italy). Journal of Geophysical Research: Solid Earth, 2020, 125, e2019JB017394.	1.4	7
49	Modelling the Surface Heat Flow Distribution in the Area of Brandenburg (Northern Germany). Energy Procedia, 2013, 40, 545-553.	1.8	6
50	The Geothermal Field Below the City of Berlin, Germany: Results from Structurally and Parametrically Improved 3D Models. Energy Procedia, 2016, 97, 334-341.	1.8	6
51	A three-dimensional lithospheric-scale thermal model of Germany. Advances in Geosciences, 0, 49, 225-234.	12.0	6
52	Thermal convection of viscous fluids in a faulted system: 3D benchmark for numerical codes. Energy Procedia, 2017, 125, 310-317.	1.8	5
53	Thermomechanics for Geological, Civil Engineering and Geodynamic Applications: Numerical Implementation and Application to the Bentheim Sandstone. Rock Mechanics and Rock Engineering, 2021, 54, 5337-5354.	2.6	5
54	Late Cretaceousâ€"Early Tertiary tectonic evolution of the Central European Basin System (CEBS): Constraints from numerical modelling. Tectonophysics, 2009, 470, 105-128.	0.9	4

#	Article	IF	Citations
55	How biased are our models? â€“ a case study of the alpine region. Geoscientific Model Development, 2021, 14, 7133-7153.	1.3	4
56	Overcoming Spatial Scales in Geothermal Modelling for Urban Areas. Energy Procedia, 2017, 125, 98-105.	1.8	3
57	Strain and Temperature an Space and Time. , 2008, , 36-153.		3
58	Boundary condition control on inter-aquifer flow in the subsurface of Berlin (Germany) â€“ new insights from 3-D numerical modelling. Advances in Geosciences, 0, 49, 9-18.	12.0	3
59	How Alpine seismicity relates to lithospheric strength. International Journal of Earth Sciences, 2022, 111, 1201-1221.	0.9	3
60	Controls of the Lithospheric Thermal Field of an Ocean-Continent Subduction Zone: The Southern Central Andes. Lithosphere, 2022, 2022, .	0.6	3
61	The application of inverse modeling in characterizing hydraulic conductivity beneath the city of Berlin, Germany. Environmental Earth Sciences, 2016, 75, 1.	1.3	2
62	Processes Responsible for Localized Deformation within Porous Rocks: Insights from Laboratory Experiments and Numerical Modeling. , 2017, , .		2
63	Effects of transient processes for thermal simulations of the Central European Basin. Geoscientific Model Development, 2021, 14, 1699-1719.	1.3	2
64	Lithospheric strength variations and seismotectonic segmentation below the Sea of Marmara. Tectonophysics, 2021, 815, 228999.	0.9	2
65	Modeling of fluid-induced seismicity during injection and after shut-in. Computers and Geotechnics, 2021, 140, 104489.	2.3	2
66	3-D Simulations of Groundwater Utilization in an Urban Catchment of Berlin, Germany. Advances in Geosciences, 0, 45, 177-184.	12.0	2
67	Influences of hydraulic boundary conditions on the deep fluid flow in a 3D regional model (central) Tj ETQq1 1 0.784314 rgBT /Overlo	1.3	2
68	Hydrogeologic and Thermal Effects of Glaciations on the Intracontinental Basins in Central and Northern Europe. Frontiers in Water, 2022, 4, .	1.0	2
69	HT (Convection) Processes. Terrestrial Environmental Sciences, 2018, , 157-177.	0.5	0
70	Unravelling the lithospheric-scale thermal field of the North Patagonian Massif plateau (Argentina) and its relations to the topographic evolution of the area. International Journal of Earth Sciences, 2020, 110, 2315.	0.9	0
71	Geothermal Modelling of Sedimentary Basins - An Integrated Approach at Different Scales. , 2011, , .		0
72	Case Study: GroÃŸ SchÃ¶nebeck. SpringerBriefs in Energy, 2017, , 47-73.	0.2	0