Alessandro F Rotta Loria

List of Publications by Year
in descending order

44 papers	1,155 citations	471371 17 h-index	395590 33 g-index
45 all docs	45 docs citations	45 times ranked	399 citing authors

#	Article	IF	Citations
1	Energy and geotechnical behaviour of energy piles for different design solutions. Applied Thermal Engineering, 2015, 86, 199-213.	3.0	137
2	Thermally induced group effects among energy piles. Geotechnique, 2017, 67, 374-393.	2.2	127
3	Numerical study of the response of a group of energy piles under different combinations of thermo-mechanical loads. Computers and Geotechnics, 2016, 72, 126-142.	2.3	117
4	Numerical modelling of energy piles in saturated sand subjected to thermo-mechanical loads. Geomechanics for Energy and the Environment, 2015, 1, 1-15.	1.2	99
5	The interaction factor method for energy pile groups. Computers and Geotechnics, 2016, 80, 121-137.	2.3	88
6	Group action effects caused by various operating energy piles. Geotechnique, 2018, 68, 834-841.	2.2	62
7	The equivalent pier method for energy pile groups. Geotechnique, 2017, 67, 691-702.	2.2	56
8	Analysis of the vertical displacement of energy pile groups. Geomechanics for Energy and the Environment, 2018, 16, 1-14.	1.2	44
9	Numerical investigation of the convection heat transfer driven by airflows in underground tunnels. Applied Thermal Engineering, 2019, 159, 113844.	3.0	44
10	Energy performance and economic feasibility of energy segmental linings for subway tunnels. Tunnelling and Underground Space Technology, 2019, 91, 102997.	3.0	43
11	Displacement interaction among energy piles bearing on stiff soil strata. Computers and Geotechnics, 2017, 90, 144-154.	2.3	36
12	Effect of non-linear soil deformation on the interaction among energy piles. Computers and Geotechnics, 2017, 86, 9-20.	2.3	29
13	A non-linear constitutive model for describing the mechanical behaviour of frozen ground and permafrost. Cold Regions Science and Technology, 2017, 133, 63-69.	1.6	28
14	Energy geostructures. , 2020, , 25-65.		24
15	Numerical Study on the Suitability of Centrifuge Testing for Capturing the Thermal-Induced Mechanical Behavior of Energy Piles. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2015, 141, .	1.5	23
16	Thermally induced deformation of soils: A critical overview of phenomena, challenges and opportunities. Geomechanics for Energy and the Environment, 2021, 25, 100193.	1.2	22
17	Thermo-mechanical behavior of a full-scale energy pile equipped with a spiral pipe configuration. Canadian Geotechnical Journal, 2021, 58, 1757-1769.	1.4	22
18	The role of thermal loads in the performance-based design of energy piles. Geomechanics for Energy and the Environment, 2020, 21, 100153.	1.2	21

#	Article	IF	Citations
19	The thermal energy storage potential of underground tunnels used as heat exchangers. Renewable Energy, 2021, 176, 214-227.	4.3	17
20	Experimental and numerical investigation of the thermo-mechanical behaviour of an energy sheet pile wall. Geomechanics for Energy and the Environment, 2021, 25, 100208.	1.2	16
21	Performance-based Design of Energy Pile Foundations. DFI Journal, 2018, 12, 94-107.	0.2	15
22	Thermo-mechanical Schemes for Energy Piles. Springer Series in Geomechanics and Geoengineering, 2019, , 218-225.	0.0	11
23	Heat exchange potential of energy tunnels for different internal airflow characteristics. Geomechanics for Energy and the Environment, 2022, 30, 100229.	1.2	10
24	Energy geostructures: Theory and application. E3S Web of Conferences, 2020, 205, 01004.	0.2	9
25	Predicting the axial capacity of piles in sand. Computers and Geotechnics, 2015, 69, 485-495.	2.3	8
26	Equivalent pier analysis of full-scale pile groups subjected to mechanical and thermal loads. Computers and Geotechnics, 2020, 120, 103410.	2.3	8
27	Extension of Winklerâ€™s solution to non-isothermal conditions for capturing the behaviour of plane geostructures subjected to thermal and mechanical actions. Computers and Geotechnics, 2020, 128, 103618.	2.3	8
28	Stresses and deformations induced by geothermal operations of energy tunnels. Tunnelling and Underground Space Technology, 2022, 124, 104438.	3.0	8
29	Thermal cycling effects on the structure and physical properties of granular materials. Granular Matter, 2020, 22, 1.	1.1	7
30	Thermal interactions among vertical geothermal borehole fields. Renewable Energy, 2022, 194, 1204-1220.	4.3	5
31	An experimental investigation challenging the thermal collapse of sand. Geotechnique, 2024, 74, 296-306.	2.2	4
32	Transient dynamics of the thermally induced deformation of sands. International Journal for Numerical and Analytical Methods in Geomechanics, 2022, 46, 1972-1988.	1.7	3
33	Analysis of barrette foundations subjected to mechanical and thermal loads. Geomechanics for Energy and the Environment, 2022, 32, 100333.	1.2	2
34	Analytical modelling of steady heat and mass transfers. , 2020, , 333-408.		1
35	Analytical solution for describing the thermo-mechanical behavior of plane energy geostructures. E3S Web of Conferences, 2020, 205, 06009.	0.2	1
36	Thermomechanical behaviour of energy pile groups. , 2020, , 299-330.		0

#	Article	IF	Citations
37	Analytical modelling of capacity and deformation of single energy piles. , 2020, , 457-565.		0
38	Thermomechanical behaviour of single energy piles. , 2020, , 271-298.		0
39	Analytical modelling of capacity and deformation of energy pile groups. , 2020, , 567-680.		0
40	Numerical modelling of energy geostructures. , 2020, , 681-747.		0
41	Performance-based design in the context of energy geostructures. , 2020, , 751-819.		0
42	Determination of design parameters for energy geostructures. , 2020, , 821-932.		0
43	Performance-based design of energy piles. , 2020, , 933-1002.		0
44	Analytical Modelling of Energy Geostructures. Lecture Notes in Civil Engineering, 2021, , 1093-1101.	0.3	0