Jean Michel Pereira

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

110 papers	1,824 citations	22 h-index	40 g-index
127 ext. papers	2,186 ext. citations	3.3 avg, IF	5.1 L-index

#	Paper	IF	Citations
110	A microstructurally based effective stress for unsaturated soils. *Geotechnique*, **2010**, 60, 913-925	3.4	235
109	Effect of temperature on the shear strength of soils and the soil-structure interface. *Canadian Geotechnical Journal*, **2016**, 53, 1186-1194	3.2	86
108	The water retention properties of a natural unsaturated loess from northern France. *Geotechnique*, **2012**, 62, 95-106	3.4	84
107	Preliminary study on the mechanical behaviour of heat exchanger pile in physical model. *Geotechnique*, **2012**, 62, 1047-1051	3.4	75
106	Experimental study on the mechanical behaviour of a heat exchanger pile using physical modelling. *Acta Geotechnica*, **2014**, 9, 385-398	4.9	73
105	Measurement and modeling of adsorptive-poromechanical properties of bituminous coal cores exposed to CO2: Adsorption, swelling strains, swelling stresses and impact on fracture permeability. *International Journal of Coal Geology*, **2014**, 134-135, 80-95	5.5	72
104	Desorption-induced shear failure of coal bed seams during gas depletion. *International Journal of Coal Geology*, **2015**, 137, 142-151	5.5	66
103	Some aspects of the compression and collapse behaviour of an unsaturated natural loess. *Geotechnique Letters*, **2011**, 1, 17-22	1.7	62
102	Benchmark of constitutive models for unsaturated soils. *Geotechnique*, **2011**, 61, 283-302	3.4	54
101	Revisiting the thermodynamics of hardening plasticity for unsaturated soils. *Computers and Geotechnics*, **2010**, 37, 207-215	4.4	52
100	A transverse isotropic model for microporous solids: Application to coal matrix adsorption and swelling. *Journal of Geophysical Research: Solid Earth*, **2013**, 118, 6113-6123	3.6	51
99	A constitutive model for unsaturated cemented soils under cyclic loading. *Computers and Geotechnics*, **2008**, 35, 853-859	4.4	51
98	Adaptation of existing behaviour models to unsaturated states: application to CJS model. *International Journal for Numerical and Analytical Methods in Geomechanics*, **2005**, 29, 1127-1155	4	50
97	Full 3D investigation and characterisation of capillary collapse of a loose unsaturated sand using X-ray CT. *Granular Matter*, **2013**, 15, 783-800	2.6	48
96	Influence of damage on pore size distribution and permeability of rocks. *International Journal for Numerical and Analytical Methods in Geomechanics*, **2013**, 37, 810-831	4	44
95	Long-term thermo-mechanical behavior of energy pile in dry sand. *Acta Geotechnica*, **2017**, 12, 729-737	4.9	42
94	Disorder characterization of porous media and its effect on fluid displacement. *Physical Review Fluids*, **2019**, 4,	2.8	33

93	Mechanical behaviour of a small-scale energy pile in saturated clay. *Geotechnique*, **2016**, 66, 878-887	3.4	32
92	Benchmark of experimental techniques for measuring and controlling suction. *Geotechnique*, **2011**, 61, 303-312	3.4	30
91	On some advanced thermo-mechanical models for saturated clays. *International Journal for Numerical and Analytical Methods in Geomechanics*, **2013**, 37, 2952-2971	4	29
90	Basic Mechanical Properties of Wet Granular Materials: A DEM Study. *Journal of Engineering Mechanics - ASCE*, **2017**, 143,	2.4	27
89	A simple method for numerical modelling of mechanical behaviour of an energy pile. *Geotechnique Letters*, **2014**, 4, 119-124	1.7	27
88	Retention and permeability properties of damaged porous rocks. *Computers and Geotechnics*, **2013**, 48, 272-282	4.4	22
87	A viscoplastic constitutive model for unsaturated geomaterials. *Computers and Geotechnics*, **2013**, 54, 143-151	4.4	22
86	Numerical study of one-dimensional compression of granular materials. I. Stress-strain behavior, microstructure, and irreversibility. *Physical Review E*, **2017**, 95, 032907	2.4	21
85	Anisotropic thermal conductivity of natural Boom Clay. *Applied Clay Science*, **2014**, 101, 282-287	5.2	20
84	Numerical study of one-dimensional compression of granular materials. II. Elastic moduli, stresses, and microstructure. *Physical Review E*, **2017**, 95, 032908	2.4	19
83	Adsorptive-mechanical properties of reconstituted granular coal: Experimental characterization and poromechanical modeling. *International Journal of Coal Geology*, **2016**, 162, 158-168	5.5	18
82	X-ray microtomography characterisation of the changes in statistical homogeneity of an unsaturated sand during imbibition. *Geotechnique Letters*, **2013**, 3, 84-88	1.7	18
81	A two-surface thermomechanical model for saturated clays. *International Journal for Numerical and Analytical Methods in Geomechanics*, **2016**, 40, 1059-1080	4	17
80	A two-surface plasticity model for stiff clay. *Acta Geotechnica*, **2016**, 11, 871-885	4.9	16
79	Impact of excavation damage on the thermo-hydro-mechanical properties of natural Boom Clay. *Engineering Geology*, **2015**, 195, 196-205	6	16
78	Discrete Digital Projections Correlation: A Reconstruction-Free Method to Quantify Local Kinematics in Granular Media by X-ray Tomography. *Experimental Mechanics*, **2017**, 57, 819-830	2.6	14
77	On-sample water content measurement for a complete local monitoring in triaxial testing of unsaturated soils. *Geotechnique*, **2012**, 62, 595-604	3.4	14
76	An elastoplastic model with combined isotropic-kinematic hardening to predict the cyclic behavior of stiff clays. *Computers and Geotechnics*, **2014**, 62, 193-202	4.4	13

75	A thermodynamically consistent framework for saturated viscoplastic rock-materials subject to damage. *Mechanics Research Communications*, **2012**, 45, 15-21	2.2	13
74	Hydro-mechanical behaviour of high-density bentonite pellet on partial hydration. *Geotechnique Letters*, **2018**, 8, 330-335	1.7	13
73	Thermo-mechanical behavior of energy diaphragm wall: Physical and numerical modelling. *Applied Thermal Engineering*, **2019**, 146, 243-251	5.8	12
72	Numerical modelling of the hydro-chemo-mechanical behaviour of geomaterials in the context of CO2 injection. *International Journal for Numerical and Analytical Methods in Geomechanics*, **2013**, 37, 3052-3069	4	11
71	Experimental investigation of the influence of supercritical state on the relative permeability of Vosges sandstone. *Comptes Rendus - Mecanique*, **2015**, 343, 495-502	2.1	10
70	Three-dimensional numerical and analytical study of horizontal group of square anchor plates in sand. *Acta Geotechnica*, **2018**, 13, 159-174	4.9	10
69	Strain-rate effects in deep marine clays from the Gulf of Guinea. *Geotechnique*, **2012**, 62, 767-775	3.4	10
68	Permeability changes in coal seams: The role of anisotropy. *International Journal of Coal Geology*, **2018**, 199, 52-64	5.5	10
67	Dependence on injection temperature and on aquifer petrophysical properties of the local stress applying on the pore wall of a crystallized pore in the context of CO2storage in deep saline aquifers. *EPJ Applied Physics*, **2013**, 64, 21101	1.1	9
66	A Thermodynamic Approach to Effective Stresses in Unsaturated Soils Incorporating the Concept of Partial Pore Deformations. *Vadose Zone Journal*, **2014**, 13, vzj2013.06.0110	2.7	9
65	Contactless probing of polycrystalline methane hydrate at pore scale suggests weaker tensile properties than thought. *Nature Communications*, **2020**, 11, 3379	17.4	8
64	Effect of Wetting Transition during Multiphase Displacement in Porous Media. *Langmuir*, **2020**, 36, 2449-2458	4	8
63	Fabric characterisation in transitional soils. *Granular Matter*, **2018**, 20, 1	2.6	8
62	Investigating the anisotropy of the shear modulus of natural Boom Clay. *Geotechnique Letters*, **2014**, 4, 98-101	1.7	8
61	Modelling the behaviour of bentonite pellet-powder mixtures upon hydration from dry granular state to saturated homogeneous state. *Engineering Geology*, **2020**, 278, 105847	6	8
60	Design tools for thermoactive geotechnical systems. *DFI Journal*, **2014**, 8, 121-129		7
59	Explicit integration of a thermo-mechanical model for clays. *Computers and Geotechnics*, **2012**, 46, 13-25	4.4	7
58	The Influence of Changes in Water Content on the Electrical Resistivity of a Natural Unsaturated Loess. *Geotechnical Testing Journal*, **2012**, 35, 103587	1.3	7

57	Impact of an SRA (hexylene glycol) on irreversible drying shrinkage and pore solution properties of cement pastes. *Cement and Concrete Research*, **2021**, 143, 106227	10.3	7
56	Benchmarking selection of parameter values for the Barcelona basic model. *Engineering Geology*, **2015**, 196, 99-118	6	6
55	Stress from NaCl crystallisation by carbon dioxide injection in aquifers. *Environmental Geotechnics*, **2015**, 2, 280-291	1.2	6
54	Long-term thermo-mechanical behaviour of energy piles in clay. *Environmental Geotechnics*, **2020**, 7, 237-248	1.2	6
53	Investigating the hydromechanical behaviour of bentonite pellets by swelling pressure tests and discrete element modelling. *Acta Geotechnica*, **2021**, 16, 507-524	4.9	6
52	Permeability of Uniformly Graded 3D Printed Granular Media. *Geophysical Research Letters*, **2021**, 48,	4.9	5
51	Enhancing Spontaneous Droplet Motion on Structured Surfaces with Tailored Wedge Design. *Advanced Materials Interfaces*, **2021**, 8, 2000520	4.6	5
50	Salient comments from an expert panel on energy geotechnics. *Environmental Geotechnics*, **2017**, 4, 135-142	1.2	4
49	Water retention and thermal conductivity of a natural unsaturated loess. *Geotechnique Letters*, **2017**, 7, 286-291	1.7	4
48	Effect of bacterial nanocellulose on the fresh and hardened states of oil well cement. *Journal of Petroleum Science and Engineering*, **2021**, 199, 108259	4.4	4
47	Fast Fourier transform-based homogenisation of gas hydrate bearing sediments. *Geotechnique Letters*, **2020**, 10, 367-376	1.7	3
46	Estimation of the deformation and filtration properties of coal by adsorption test data based on solution of the inverse problem. *Doklady Physics*, **2017**, 62, 323-327	0.8	3
45	Combined effects of structure and partial saturation in natural soils. *Journal of Geo-Engineering Sciences*, **2014**, 2, 3-16		3
44	Poromechanics of Salt Nucleation within an Unsaturated Reservoir Rock **2013**,		3
43	Effects of the initial granular structure of clay sealing materials on their swelling properties: experiments and DEM simulations. *EPJ Nuclear Sciences & Technologies*, **2020**, 6, 1	1	3
42	Macro-microscopic one-dimensional compression of wet granular soils by experimental investigation. *E3S Web of Conferences*, **2016**, 9, 06001	0.5	3
41	Modélisation physique du comportement thermo-mécanique d'un pieu géothermique. *Revue Française De Géotechnique*, **2021**, 3	0.1	3
40	Direct and inverse problems of gas emission and the sorptive deformation of coal beds. *Journal of Applied and Industrial Mathematics*, **2017**, 11, 236-243	0.6	2

39	Sedimentation consolidation of a double porosity material. *Computers and Geotechnics*, **2007**, 34, 532-538	4.4	2
38	On the time-dependent behaviour of unsaturated geomaterials **2010**, 921-925		2
37	Experimental investigation on the grain-scale compression behavior of loose wet granular material. *Acta Geotechnica*, **2020**, 15, 1039-1055	4.9	2
36	General Statistics-Based Methodology for the Determination of the Geometrical and Mechanical Representative Elementary Volumes of Fractured Media. *Rock Mechanics and Rock Engineering*, **2021**, 54, 1841-1861	5.7	2
35	CO2 plume and pressure monitoring through pressure sensors above the caprock. *International Journal of Greenhouse Gas Control*, **2022**, 117, 103660	4.2	2
34	Experimental Study on a Scaled Model of Offshore Wind Turbine on Monopile Foundation. *Springer Series in Solid and Structural Mechanics*, **2017**, 249-267	0.2	1
33	Investigation into the isotropic compression of wet granular soils using discrete element method. *E3S Web of Conferences*, **2016**, 9, 08008	0.5	1
32	Thermo-elasto-plastic modeling of saturated clays under undrained conditions. *Computers and Geotechnics*, **2020**, 125, 103688	4.4	1
31	A Chemo-Poromechanical Model for Well/Caprock Interface in Presence of CO2 **2013**,		1
30	A damage model for unsaturated natural loess submitted to cyclic loading **2008**, 647-652		1
29	New triaxial device for unsaturated soils with local measurements **2014**, 1617-1622		1
28	Modelling the hydromechanical behaviour of a granular expansive clayey soil upon hydration using discrete element method. *Lecture Notes in Civil Engineering*, **2020**, 871-876	0.3	1
27	CO2 geological storage: Microstructure and mechanical behavior of cement modified with a biopolymer after carbonation. *E3S Web of Conferences*, **2020**, 205, 02007	0.5	1
26	Effect of Grain Shape on Quasi-Static Fluid-Fluid Displacement in Porous Media. *Water Resources Research*, **2021**, 57, e2020WR029415	5.4	1
25	Towards the End of Drying of Granular Materials: Enhanced Evaporation and Drying-Induced Collapse. *Water Resources Research*, **2021**, 57, e2021WR030125	5.4	1
24	Packing of wet monodisperse spheres. *Powder Technology*, **2021**, 378, 60-64	5.2	1
23	Behavior of Heat-Exchanger Piles from Physical Modeling79-97		1
22	A pore-resolved interface tracking algorithm for simulating multiphase flow in arbitrarily structured porous media. *Advances in Water Resources*, **2022**, 162, 104152	4.7	1

21	A finite difference model for undefined end boundary to analyse the heat transfer in dry sands. *International Journal of Geotechnical Engineering*, **2020**, 1-7	1.5	0
20	A two-surface thermomechanical plasticity model considering thermal cyclic behavior. *Acta Geotechnica*, **2020**, 15, 2741-2755	4.9	0
19	Assessment of exit hydraulic gradients at the toe of levees in water drawdown conditions **2014**, 171-181		0
18	Undrained cylindrical cavity expansion/contraction in stiff clays using a two-surface plasticity model. *International Journal for Numerical and Analytical Methods in Geomechanics*, **2022**, 46, 570-593	4	0
17	A Suction- and Temperature-Controlled Oedometric Device. *Springer Series in Geomechanics and Geoengineering*, **2017**, 199-206	0.1	
16	Investigation into macroscopic and microscopic behaviors of wet granular soils using discrete element method and X-ray computed tomography. *EPJ Web of Conferences*, **2017**, 140, 08018	0.3	
15	A DEM study of oedometric compression of model granular materials Initial state influence, stress ratio, elasticity, irreversibility.. *EPJ Web of Conferences*, **2017**, 140, 02028	0.3	
14	A □T investigation of the collapse of a loose unsaturated sand specimen: Comparison between macroscopic and mesoscopic scale **2014**, 1171-1176		
13	Experimental and modelling issues in unsaturated soils mechanics: Role of microstructure **2014**, 711-717		
12	Book reviewThermo-poroelasticity and Geomechanics. A. P. S. Selvadurai and A. P. Suvorov. Cambridge, UK: Cambridge University Press, 2017. 268 pp. ISBN 978-1-107-14289-3, £69□99. *Geotechnique*, **2017**, 1-1	3.4	
11	Numerical homogenization method in the modeling of gas hydrate bearing sediments. *E3S Web of Conferences*, **2020**, 205, 11002	0.5	
10	Influence of heterogeneities of density on the hydromechanical behaviour of pellet-based bentonite materials in imbibition experiments. *Applied Clay Science*, **2022**, 216, 106353	5.2	
9	A Fast Testing Method for Discriminating Hardened Cement Paste Reactivity with External Sulphate. *RILEM Bookseries*, **2020**, 121-136	0.5	
8	Modelling the hydromechanical behaviour of expansive granular mixtures upon hydration. *E3S Web of Conferences*, **2020**, 195, 02006	0.5	
7	Thermo-mechanical behavior of small-scale energy pile in dry sand **2016**, 577-583		
6	Conductive Heat Transfer Analysis of Energy Pile. *Lecture Notes in Civil Engineering*, **2018**, 685-693	0.3	
5	Modelling the unsaturated behaviour of structured soils **2010**, 939-944		
4	Chemo-Poromechanical Study of Wellbore Cement Integrity209-228		

3	Cement with bacterial nanocellulose cured at reservoir temperature: Mechanical performance in the context of CO2 geological storage. *Geomechanics for Energy and the Environment*, **2021**, 100267	3.7
2	Analysis of Modified Cement Paste in the Context of CO2 Geological Storage. *Springer Series in Geomechanics and Geoengineering*, **2019**, 402-409	0.1
1	Droplet Transport: Enhancing Spontaneous Droplet Motion on Structured Surfaces with Tailored Wedge Design (Adv. Mater. Interfaces 2/2021). *Advanced Materials Interfaces*, **2021**, 8, 2170010	4.6