

# Jean Michel Pereira

## List of Publications by Year in Descending Order

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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	Influence of heterogeneities of density on the hydromechanical behaviour of pellet-based bentonite materials in imbibition experiments. <i>Applied Clay Science</i> , <b>2022</b> , 216, 106353	5.2	
109	A pore-resolved interface tracking algorithm for simulating multiphase flow in arbitrarily structured porous media. <i>Advances in Water Resources</i> , <b>2022</b> , 162, 104152	4.7	1
108	Undrained cylindrical cavity expansion/contraction in stiff clays using a two-surface plasticity model. <i>International Journal for Numerical and Analytical Methods in Geomechanics</i> , <b>2022</b> , 46, 570-593	4	0
107	CO2 plume and pressure monitoring through pressure sensors above the caprock. <i>International Journal of Greenhouse Gas Control</i> , <b>2022</b> , 117, 103660	4.2	2
106	Permeability of Uniformly Graded 3D Printed Granular Media. <i>Geophysical Research Letters</i> , <b>2021</b> , 48,	4.9	5
105	Effect of bacterial nanocellulose on the fresh and hardened states of oil well cement. <i>Journal of Petroleum Science and Engineering</i> , <b>2021</b> , 199, 108259	4.4	4
104	Effect of Grain Shape on Quasi-Static Fluid-Fluid Displacement in Porous Media. <i>Water Resources Research</i> , <b>2021</b> , 57, e2020WR029415	5.4	1
103	Impact of an SRA (hexylene glycol) on irreversible drying shrinkage and pore solution properties of cement pastes. <i>Cement and Concrete Research</i> , <b>2021</b> , 143, 106227	10.3	7
102	Towards the End of Drying of Granular Materials: Enhanced Evaporation and Drying-Induced Collapse. <i>Water Resources Research</i> , <b>2021</b> , 57, e2021WR030125	5.4	1
101	Cement with bacterial nanocellulose cured at reservoir temperature: Mechanical performance in the context of CO2 geological storage. <i>Geomechanics for Energy and the Environment</i> , <b>2021</b> , 100267	3.7	
100	Enhancing Spontaneous Droplet Motion on Structured Surfaces with Tailored Wedge Design. <i>Advanced Materials Interfaces</i> , <b>2021</b> , 8, 2000520	4.6	5
99	Investigating the hydromechanical behaviour of bentonite pellets by swelling pressure tests and discrete element modelling. <i>Acta Geotechnica</i> , <b>2021</b> , 16, 507-524	4.9	6
98	Packing of wet monodisperse spheres. <i>Powder Technology</i> , <b>2021</b> , 378, 60-64	5.2	1
97	Droplet Transport: Enhancing Spontaneous Droplet Motion on Structured Surfaces with Tailored Wedge Design (Adv. Mater. Interfaces 2/2021). <i>Advanced Materials Interfaces</i> , <b>2021</b> , 8, 2170010	4.6	
96	Modélisation physique du comportement thermo-mécanique d'un pieu géothermique. <i>Revue Française De Géotechnique</i> , <b>2021</b> , 3	0.1	3
95	General Statistics-Based Methodology for the Determination of the Geometrical and Mechanical Representative Elementary Volumes of Fractured Media. <i>Rock Mechanics and Rock Engineering</i> , <b>2021</b> , 54, 1841-1861	5.7	2
94	A finite difference model for undefined end boundary to analyse the heat transfer in dry sands. <i>International Journal of Geotechnical Engineering</i> , <b>2020</b> , 1-7	1.5	0

93	A two-surface thermomechanical plasticity model considering thermal cyclic behavior. <i>Acta Geotechnica</i> , <b>2020</b> , 15, 2741-2755	4.9	0
92	Contactless probing of polycrystalline methane hydrate at pore scale suggests weaker tensile properties than thought. <i>Nature Communications</i> , <b>2020</b> , 11, 3379	17.4	8
91	Thermo-elasto-plastic modeling of saturated clays under undrained conditions. <i>Computers and Geotechnics</i> , <b>2020</b> , 125, 103688	4.4	1
90	Fast Fourier transform-based homogenisation of gas hydrate bearing sediments. <i>Geotechnique Letters</i> , <b>2020</b> , 10, 367-376	1.7	3
89	Effect of Wetting Transition during Multiphase Displacement in Porous Media. <i>Langmuir</i> , <b>2020</b> , 36, 2449-2458	7.458	8
88	Numerical homogenization method in the modeling of gas hydrate bearing sediments. <i>E3S Web of Conferences</i> , <b>2020</b> , 205, 11002	0.5	
87	A Fast Testing Method for Discriminating Hardened Cement Paste Reactivity with External Sulphate. <i>RILEM Bookseries</i> , <b>2020</b> , 121-136	0.5	
86	Modelling the hydromechanical behaviour of expansive granular mixtures upon hydration. <i>E3S Web of Conferences</i> , <b>2020</b> , 195, 02006	0.5	
85	Modelling the hydromechanical behaviour of a granular expansive clayey soil upon hydration using discrete element method. <i>Lecture Notes in Civil Engineering</i> , <b>2020</b> , 871-876	0.3	1
84	Effects of the initial granular structure of clay sealing materials on their swelling properties: experiments and DEM simulations. <i>EPJ Nuclear Sciences &amp; Technologies</i> , <b>2020</b> , 6, 1	1	3
83	Modelling the behaviour of bentonite pellet-powder mixtures upon hydration from dry granular state to saturated homogeneous state. <i>Engineering Geology</i> , <b>2020</b> , 278, 105847	6	8
82	CO2 geological storage: Microstructure and mechanical behavior of cement modified with a biopolymer after carbonation. <i>E3S Web of Conferences</i> , <b>2020</b> , 205, 02007	0.5	1
81	Long-term thermo-mechanical behaviour of energy piles in clay. <i>Environmental Geotechnics</i> , <b>2020</b> , 7, 237-248	12.8	6
80	Experimental investigation on the grain-scale compression behavior of loose wet granular material. <i>Acta Geotechnica</i> , <b>2020</b> , 15, 1039-1055	4.9	2
79	Disorder characterization of porous media and its effect on fluid displacement. <i>Physical Review Fluids</i> , <b>2019</b> , 4,	2.8	33
78	Analysis of Modified Cement Paste in the Context of CO2 Geological Storage. <i>Springer Series in Geomechanics and Geoenvironmental Engineering</i> , <b>2019</b> , 402-409	0.1	
77	Thermo-mechanical behavior of energy diaphragm wall: Physical and numerical modelling. <i>Applied Thermal Engineering</i> , <b>2019</b> , 146, 243-251	5.8	12
76	Fabric characterisation in transitional soils. <i>Granular Matter</i> , <b>2018</b> , 20, 1	2.6	8

75	Three-dimensional numerical and analytical study of horizontal group of square anchor plates in sand. <i>Acta Geotechnica</i> , <b>2018</b> , 13, 159-174	4.9	10
74	Conductive Heat Transfer Analysis of Energy Pile. <i>Lecture Notes in Civil Engineering</i> , <b>2018</b> , 685-693	0.3	
73	Hydro-mechanical behaviour of high-density bentonite pellet on partial hydration. <i>Geotechnique Letters</i> , <b>2018</b> , 8, 330-335	1.7	13
72	Permeability changes in coal seams: The role of anisotropy. <i>International Journal of Coal Geology</i> , <b>2018</b> , 199, 52-64	5.5	10
71	Basic Mechanical Properties of Wet Granular Materials: A DEM Study. <i>Journal of Engineering Mechanics - ASCE</i> , <b>2017</b> , 143,	2.4	27
70	Experimental Study on a Scaled Model of Offshore Wind Turbine on Monopile Foundation. <i>Springer Series in Solid and Structural Mechanics</i> , <b>2017</b> , 249-267	0.2	1
69	A Suction- and Temperature-Controlled Oedometric Device. <i>Springer Series in Geomechanics and Geoengineering</i> , <b>2017</b> , 199-206	0.1	
68	Discrete Digital Projections Correlation: A Reconstruction-Free Method to Quantify Local Kinematics in Granular Media by X-ray Tomography. <i>Experimental Mechanics</i> , <b>2017</b> , 57, 819-830	2.6	14
67	Direct and inverse problems of gas emission and the sorptive deformation of coal beds. <i>Journal of Applied and Industrial Mathematics</i> , <b>2017</b> , 11, 236-243	0.6	2
66	Long-term thermo-mechanical behavior of energy pile in dry sand. <i>Acta Geotechnica</i> , <b>2017</b> , 12, 729-737	4.9	42
65	Numerical study of one-dimensional compression of granular materials. II. Elastic moduli, stresses, and microstructure. <i>Physical Review E</i> , <b>2017</b> , 95, 032908	2.4	19
64	Salient comments from an expert panel on energy geotechnics. <i>Environmental Geotechnics</i> , <b>2017</b> , 4, 135-142	1.42	4
63	Investigation into macroscopic and microscopic behaviors of wet granular soils using discrete element method and X-ray computed tomography. <i>EPJ Web of Conferences</i> , <b>2017</b> , 140, 08018	0.3	
62	A DEM study of oedometric compression of model granular materials Initial state influence, stress ratio, elasticity, irreversibility.. <i>EPJ Web of Conferences</i> , <b>2017</b> , 140, 02028	0.3	
61	Estimation of the deformation and filtration properties of coal by adsorption test data based on solution of the inverse problem. <i>Doklady Physics</i> , <b>2017</b> , 62, 323-327	0.8	3
60	Numerical study of one-dimensional compression of granular materials. I. Stress-strain behavior, microstructure, and irreversibility. <i>Physical Review E</i> , <b>2017</b> , 95, 032907	2.4	21
59	Water retention and thermal conductivity of a natural unsaturated loess. <i>Geotechnique Letters</i> , <b>2017</b> , 7, 286-291	1.7	4
58	Book review Thermo-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. <i>Geotechnique</i> , <b>2017</b> , 1-1	3.4	

57	A two-surface plasticity model for stiff clay. <i>Acta Geotechnica</i> , <b>2016</b> , 11, 871-885	4.9	16
56	Investigation into the isotropic compression of wet granular soils using discrete element method. <i>E3S Web of Conferences</i> , <b>2016</b> , 9, 08008	0.5	1
55	Mechanical behaviour of a small-scale energy pile in saturated clay. <i>Geotechnique</i> , <b>2016</b> , 66, 878-887	3.4	32
54	Adsorptive-mechanical properties of reconstituted granular coal: Experimental characterization and poromechanical modeling. <i>International Journal of Coal Geology</i> , <b>2016</b> , 162, 158-168	5.5	18
53	Effect of temperature on the shear strength of soils and the soil-structure interface. <i>Canadian Geotechnical Journal</i> , <b>2016</b> , 53, 1186-1194	3.2	86
52	Thermo-mechanical behavior of small-scale energy pile in dry sand <b>2016</b> , 577-583		
51	Macro-microscopic one-dimensional compression of wet granular soils by experimental investigation. <i>E3S Web of Conferences</i> , <b>2016</b> , 9, 06001	0.5	3
50	A two-surface thermomechanical model for saturated clays. <i>International Journal for Numerical and Analytical Methods in Geomechanics</i> , <b>2016</b> , 40, 1059-1080	4	17
49	Benchmarking selection of parameter values for the Barcelona basic model. <i>Engineering Geology</i> , <b>2015</b> , 196, 99-118	6	6
48	Impact of excavation damage on the thermo-hydro-mechanical properties of natural Boom Clay. <i>Engineering Geology</i> , <b>2015</b> , 195, 196-205	6	16
47	Experimental investigation of the influence of supercritical state on the relative permeability of Vosges sandstone. <i>Comptes Rendus - Mecanique</i> , <b>2015</b> , 343, 495-502	2.1	10
46	Desorption-induced shear failure of coal bed seams during gas depletion. <i>International Journal of Coal Geology</i> , <b>2015</b> , 137, 142-151	5.5	66
45	Stress from NaCl crystallisation by carbon dioxide injection in aquifers. <i>Environmental Geotechnics</i> , <b>2015</b> , 2, 280-291	1.2	6
44	Measurement and modeling of adsorptive-poromechanical properties of bituminous coal cores exposed to CO <sub>2</sub> : Adsorption, swelling strains, swelling stresses and impact on fracture permeability. <i>International Journal of Coal Geology</i> , <b>2014</b> , 134-135, 80-95	5.5	72
43	Anisotropic thermal conductivity of natural Boom Clay. <i>Applied Clay Science</i> , <b>2014</b> , 101, 282-287	5.2	20
42	A simple method for numerical modelling of mechanical behaviour of an energy pile. <i>Geotechnique Letters</i> , <b>2014</b> , 4, 119-124	1.7	27
41	An elastoplastic model with combined isotropic-kinematic hardening to predict the cyclic behavior of stiff clays. <i>Computers and Geotechnics</i> , <b>2014</b> , 62, 193-202	4.4	13
40	Experimental study on the mechanical behaviour of a heat exchanger pile using physical modelling. <i>Acta Geotechnica</i> , <b>2014</b> , 9, 385-398	4.9	73

39	Investigating the anisotropy of the shear modulus of natural Boom Clay. <i>Geotechnique Letters</i> , <b>2014</b> , 4, 98-101	1.7	8
38	Assessment of exit hydraulic gradients at the toe of levees in water drawdown conditions <b>2014</b> , 171-181		0
37	A CT investigation of the collapse of a loose unsaturated sand specimen: Comparison between macroscopic and mesoscopic scale <b>2014</b> , 1171-1176		
36	Experimental and modelling issues in unsaturated soils mechanics: Role of microstructure <b>2014</b> , 711-717		
35	Combined effects of structure and partial saturation in natural soils. <i>Journal of Geo-Engineering Sciences</i> , <b>2014</b> , 2, 3-16		3
34	A Thermodynamic Approach to Effective Stresses in Unsaturated Soils Incorporating the Concept of Partial Pore Deformations. <i>Vadose Zone Journal</i> , <b>2014</b> , 13, vj2013.06.0110	2.7	9
33	Design tools for thermoactive geotechnical systems. <i>DFI Journal</i> , <b>2014</b> , 8, 121-129		7
32	New triaxial device for unsaturated soils with local measurements <b>2014</b> , 1617-1622		1
31	Influence of damage on pore size distribution and permeability of rocks. <i>International Journal for Numerical and Analytical Methods in Geomechanics</i> , <b>2013</b> , 37, 810-831	4	44
30	Full 3D investigation and characterisation of capillary collapse of a loose unsaturated sand using X-ray CT. <i>Granular Matter</i> , <b>2013</b> , 15, 783-800	2.6	48
29	A Chemo-Poromechanical Model for Well/Caprock Interface in Presence of CO <sub>2</sub> <b>2013</b> ,		1
28	Numerical modelling of the hydro-chemo-mechanical behaviour of geomaterials in the context of CO <sub>2</sub> injection. <i>International Journal for Numerical and Analytical Methods in Geomechanics</i> , <b>2013</b> , 37, 3052-3069 <sup>11</sup>		
27	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 CO <sub>2</sub> storage in deep saline aquifers. <i>EPJ Applied Physics</i> , <b>2013</b> , 64, 21101	1.1	9
26	Retention and permeability properties of damaged porous rocks. <i>Computers and Geotechnics</i> , <b>2013</b> , 48, 272-282	4.4	22
25	A viscoplastic constitutive model for unsaturated geomaterials. <i>Computers and Geotechnics</i> , <b>2013</b> , 54, 143-151	4.4	22
24	Poromechanics of Salt Nucleation within an Unsaturated Reservoir Rock <b>2013</b> ,		3
23	On some advanced thermo-mechanical models for saturated clays. <i>International Journal for Numerical and Analytical Methods in Geomechanics</i> , <b>2013</b> , 37, 2952-2971	4	29
22	X-ray microtomography characterisation of the changes in statistical homogeneity of an unsaturated sand during imbibition. <i>Geotechnique Letters</i> , <b>2013</b> , 3, 84-88	1.7	18

21	A transverse isotropic model for microporous solids: Application to coal matrix adsorption and swelling. <i>Journal of Geophysical Research: Solid Earth</i> , <b>2013</b> , 118, 6113-6123	3.6	51
20	Preliminary study on the mechanical behaviour of heat exchanger pile in physical model. <i>Geotechnique</i> , <b>2012</b> , 62, 1047-1051	3.4	75
19	The water retention properties of a natural unsaturated loess from northern France. <i>Geotechnique</i> , <b>2012</b> , 62, 95-106	3.4	84
18	Explicit integration of a thermo-mechanical model for clays. <i>Computers and Geotechnics</i> , <b>2012</b> , 46, 13-25	4.4	7
17	A thermodynamically consistent framework for saturated viscoplastic rock-materials subject to damage. <i>Mechanics Research Communications</i> , <b>2012</b> , 45, 15-21	2.2	13
16	On-sample water content measurement for a complete local monitoring in triaxial testing of unsaturated soils. <i>Geotechnique</i> , <b>2012</b> , 62, 595-604	3.4	14
15	Strain-rate effects in deep marine clays from the Gulf of Guinea. <i>Geotechnique</i> , <b>2012</b> , 62, 767-775	3.4	10
14	The Influence of Changes in Water Content on the Electrical Resistivity of a Natural Unsaturated Loess. <i>Geotechnical Testing Journal</i> , <b>2012</b> , 35, 103587	1.3	7
13	Benchmark of experimental techniques for measuring and controlling suction. <i>Geotechnique</i> , <b>2011</b> , 61, 303-312	3.4	30
12	Benchmark of constitutive models for unsaturated soils. <i>Geotechnique</i> , <b>2011</b> , 61, 283-302	3.4	54
11	Some aspects of the compression and collapse behaviour of an unsaturated natural loess. <i>Geotechnique Letters</i> , <b>2011</b> , 1, 17-22	1.7	62
10	A microstructurally based effective stress for unsaturated soils. <i>Geotechnique</i> , <b>2010</b> , 60, 913-925	3.4	235
9	Revisiting the thermodynamics of hardening plasticity for unsaturated soils. <i>Computers and Geotechnics</i> , <b>2010</b> , 37, 207-215	4.4	52
8	On the time-dependent behaviour of unsaturated geomaterials <b>2010</b> , 921-925		2
7	Modelling the unsaturated behaviour of structured soils <b>2010</b> , 939-944		
6	A constitutive model for unsaturated cemented soils under cyclic loading. <i>Computers and Geotechnics</i> , <b>2008</b> , 35, 853-859	4.4	51
5	A damage model for unsaturated natural loess submitted to cyclic loading <b>2008</b> , 647-652		1
4	Sedimentation/consolidation of a double porosity material. <i>Computers and Geotechnics</i> , <b>2007</b> , 34, 532-538	4.4	2

- 3 Adaptation of existing behaviour models to unsaturated states: application to CJS model.  
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- 2 Chemo-Poromechanical Study of Wellbore Cement Integrity 209-228
- 1 Behavior of Heat-Exchanger Piles from Physical Modeling 79-97 1