Jean-NoÃ«l Roux

List of Publications by Year
in descending order

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64 papers	3,737 citations	159585 30 h-index	149698 56 g-index
65 all docs	65 docs citations	65 times ranked	2131 citing authors

#	Article	IF	Citations
1	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	2
2	Investigating the hydromechanical behaviour of bentonite pellets by swelling pressure tests and discrete element modelling. Acta Geotechnica, 2021, 16, 507-524.	5.7	16
3	Quasistatic response of loose cohesive granular materials. EPJ Web of Conferences, 2021, 249, 14021.	0.3	2
4	Experimental investigation on the grain-scale compression behavior of loose wet granular material. Acta Geotechnica, 2020, 15, 1039-1055.	5.7	5
5	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.	0.7	6
6	Modelling the behaviour of bentonite pellet-powder mixtures upon hydration from dry granular state to saturated homogeneous state. Engineering Geology, 2020, 278, 105847.	6.3	15
7	Elasticity of model weakly cemented granular materials: A numerical study. International Journal of Solids and Structures, 2020, 193-194, 13-27.	2.7	12
8	Modelling the hydromechanical behaviour of expansive granular mixtures upon hydration. E3S Web of Conferences, 2020, 195, 02006.	0.5	0
9	Elasticity and Mechanical Behaviour of Granular Materials: Some Insights from Numerical Studies of Simple Systems. Advances in Mechanics and Mathematics, 2020, , 185-224.	0.7	0
10	Granular Materials: Micromechanical Approaches of Model Systems. CISM International Centre for Mechanical Sciences, Courses and Lectures, 2019, , 141-193.	0.6	0
11	Inertial shear flow of assemblies of frictionless polygons: Rheology and microstructure. European Physical Journal E, 2018, 41, 2.	1.6	16
12	Shear strength of wet granular materials: Macroscopic cohesion and effective stress. European Physical Journal E, 2018, 41, 68.	1.6	20
13	Basic Mechanical Properties of Wet Granular Materials: A DEM Study. Journal of Engineering Mechanics - ASCE, 2017, 143, .	2.9	32
14	Modeling Granular Materials: Century-Long Research across Scales. Journal of Engineering Mechanics - ASCE, 2017, 143, .	2.9	67
15	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.	2.0	18
16	Numerical study of one-dimensional compression of granular materials. II. Elastic moduli, stresses, and microstructure. Physical Review E, 2017, 95, 032908.	2.1	23
17	Rheology of wet granular materials under continuous shear: experiments and simulations. EPJ Web of Conferences, 2017, 140, 08019.	0.3	2
18	Reply to â€œComment on â€˜Flow of wet granular materials: A numerical study' â€• Physical Review E, 2017, 96, 016902.	2.1	1

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19	Numerical study of one-dimensional compression of granular materials. I. Stress-strain behavior, microstructure, and irreversibility. Physical Review E, 2017, 95, 032907.	2.1	25
20	3D particle shape modelling and optimization through proper orthogonal decomposition. Granular Matter, 2017, 19, 1.	2.2	34
21	Assessing contact forces in granular materials from experimental measurements of kinematics. EPJ Web of Conferences, 2017, 140, 02012.	0.3	3
22	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	0
23	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	0
24	Dry granular flows â€“ rheological measurements of theÎ¼(I) â€“ Rheology. EPJ Web of Conferences, 2017, 140, 03005.	0.3	2
25	Influence of 3D particle shape on the mechanical behaviour through a novel characterization method. EPJ Web of Conferences, 2017, 140, 06027.	0.3	1
26	Investigation into the isotropic compression of wet granular soils using discrete element method. E3S Web of Conferences, 2016, 9, 08008.	0.5	1
27	Macro-microscopic one-dimensional compression of wet granular soils by experimental investigation. E3S Web of Conferences, 2016, 9, 06001.	0.5	3
28	Rheology of wet granular materials in shear flow: experiments and discrete simulations. E3S Web of Conferences, 2016, 9, 14008.	0.5	3
29	Railway Ballast: Grain Shape Characterization to Study its Influence on the Mechanical Behaviour. Procedia Engineering, 2016, 143, 1120-1127.	1.2	18
30	Flow of wet granular materials: A numerical study. Physical Review E, 2015, 92, 022201.	2.1	48
31	Internal friction and absence of dilatancy of packings of frictionless polygons. Physical Review E, 2015, 91, 010202.	2.1	30
32	Flow of dry and wet granular materials: Numerical simulation results. , 2013, , .		0
33	Quasistatic behaviour of granular materials: Some things we learned from DEM studies. , 2013, , .		2
34	Discrete simulation of dense flows of polyhedral grains down a rough inclined plane. Physical Review E, 2012, 86, 031303.	2.1	37
35	Shear flow of dense granular materials near smooth walls. I. Shear localization and constitutive laws in the boundary region. Physical Review E, 2012, 86, 011301.	2.1	34
36	Interface roughness effect on slow cyclic annular shear of granular materials. Granular Matter, 2011, 13, 525-540.	2.2	31

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37	MRI investigation of granular interface rheology using a new cylinder shear apparatus. Magnetic Resonance Imaging, 2010, 28, 910-918.	1.8	15
38	Annular shear of cohesionless granular materials: From the inertial to quasistatic regime. Physical Review E, 2009, 79, 021306.	2.1	125
39	What do dry granular flows tell us about dense non-Brownian suspension rheology?. Rheologica Acta, 2009, 48, 925-942.	2.4	72
40	Friction law in dense granular flows. Powder Technology, 2009, 190, 264-268.	4.2	31
41	Frictionless bead packs have macroscopic friction, but no dilatancy. Physical Review E, 2008, 78, 011307.	2.1	164
42	Dense flows of cohesive granular materials. Journal of Fluid Mechanics, 2008, 596, 21-47.	3.4	135
43	Solidlike behavior and anisotropy in rigid frictionless bead assemblies. Physical Review E, 2008, 78, 041307.	2.1	38
44	Dense flows of bidisperse assemblies of disks down an inclined plane. Physics of Fluids, 2007, 19, 058101.	4.0	87
45	Internal states of model isotropic granular packings. III. Elastic properties. Physical Review E, 2007, 76, 061304.	2.1	126
46	Internal states of model isotropic granular packings. II. Compression and pressure cycles. Physical Review E, 2007, 76, 061303.	2.1	48
47	Internal states of model isotropic granular packings. I. Assembling process, geometry, and contact networks. Physical Review E, 2007, 76, 061302.	2.1	150
48	Rheophysics of cohesive granular materials. Europhysics Letters, 2006, 74, 644-650.	2.0	69
49	Rheophysics of dense granular materials: Discrete simulation of plane shear flows. Physical Review E, 2005, 72, 021309.	2.1	867
50	Delayed Fracture in Porous Media. Physical Review Letters, 2005, 95, 175501.	7.8	34
51	Elastic wave propagation in confined granular systems. Physical Review E, 2005, 72, 021301.	2.1	128
52	Force distribution in two dimensional sandpile. Nonlinear Phenomena and Complex Systems, 2004, , 297-303.	0.0	0
53	Discrete numerical simulation, quasistatic deformation and the origins of strain in granular materials. , 2003, , .		8
54	Quasistatic rheology and the origins of strain. Comptes Rendus Physique, 2002, 3, 131-140.	0.9	101

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55	SANS Study of Asphaltene Aggregation:Â Concentration and Solvent Quality Effects. Langmuir, 2001, 17, 5085-5092.	3.5	122
56	Strain versus Stress in a Model Granular Material: A Devil's Staircase. Physical Review Letters, 2000, 85, 3628-3631.	7.8	78
57	Geometric origin of mechanical properties of granular materials. Physical Review E, 2000, 61, 6802-6836.	2.1	159
58	Viscosimetric and Neutron Scattering Study of Asphaltene Aggregates in Mixed Toluene/Heptane Solvents. Langmuir, 1998, 14, 1013-1020.	3.5	154
59	Brownian particles at different times scales: a new derivation of the Smoluchowski equation. Physica A: Statistical Mechanics and Its Applications, 1992, 188, 526-552.	2.6	37
60	Molecular dynamics simulations of supercooled liquids near the glass transition. Journal of Non-Crystalline Solids, 1991, 131-133, 255-261.	3.1	13
61	Brownian dynamics and kinetic glass transition in colloidal suspensions. Physical Review A, 1991, 44, 1169-1181.	2.5	139
62	Diffusion, viscosity and structural slowing down in soft sphere alloys near the kinetic glass transition. Chemical Physics, 1990, 149, 197-208.	1.9	146
63	Dynamical diagnostics for the glass transition in soft-sphere alloys. Journal of Physics Condensed Matter, 1989, 1, 7171-7186.	1.8	159
64	Resistance jumps in mercury injection in porous media. Physical Review A, 1988, 37, 3921-3926.	2.5	22