Jacques Desrues

List of Publications by Year
in descending order

54 papers	3,835 citations	279701 23 h-index	223716 46 g-index
57 all docs	57 docs citations	57 times ranked	2008 citing authors

#	Article	IF	Citations
1	Void ratio evolution inside shear bands in triaxial sand specimens studied by computed tomography. Geotechnique, 1996, 46, 529-546.	2.2	589
2	Discrete and continuum analysis of localised deformation in sand using X-ray Î¼CT and volumetric digital image correlation. Geotechnique, 2010, 60, 315-322.	2.2	477
3	Strain localization in sand: an overview of the experimental results obtained in Grenoble using stereophotogrammetry. International Journal for Numerical and Analytical Methods in Geomechanics, 2004, 28, 279-321.	1.7	403
4	Volumetric Digital Image Correlation Applied to X-ray Microtomography Images from Triaxial Compression Tests on Argillaceous Rock. Strain, 2007, 43, 193-205.	1.4	306
5	Experimental characterisation of the localisation phenomenon inside a Vosges sandstone in a triaxial cell. International Journal of Rock Mechanics and Minings Sciences, 2000, 37, 1223-1237.	2.6	298
6	Grain-scale experimental investigation of localised deformation in sand: a discrete particle tracking approach. Acta Geotechnica, 2012, 7, 1-13.	2.9	276
7	Localization of the deformation in tests on sand sample. Engineering Fracture Mechanics, 1985, 21, 909-921.	2.0	183
8	Strain localization measurements in undrained plane-strain biaxial tests on Hostun RF sand. International Journal for Numerical and Analytical Methods in Geomechanics, 1999, 4, 419-441.	1.0	154
9	CLoE, a new rate-type constitutive model for geomaterials theoretical basis and implementation. International Journal for Numerical and Analytical Methods in Geomechanics, 1994, 18, 253-278.	1.7	90
10	X-ray microtomography for studying localized deformation in fine-grained geomaterials under triaxial compression. Comptes Rendus - Mecanique, 2004, 332, 819-826.	2.1	87
11	3D imaging of fracture propagation using synchrotron X-ray microtomography. Earth and Planetary Science Letters, 2009, 286, 285-291.	1.8	84
12	Two-scale modeling of granular materials: a DEM-FEM approach. Granular Matter, 2011, 13, 277-281.	1.1	84
13	Shear band analysis and shear moduli calibration. International Journal of Solids and Structures, 2002, 39, 3757-3776.	1.3	69
14	Shear band analysis for granular materials: The question of incremental non-linearity. Ingenieur-Archiv, 1989, 59, 187-196.	0.6	62
15	Localization criteria for non-linear constitutive equations of geomaterials. International Journal for Numerical and Analytical Methods in Geomechanics, 2000, 5, 61-82.	1.0	62
16	Strain localisation in granular media. Comptes Rendus Physique, 2015, 16, 26-36.	0.3	62
17	FEM Ã— DEM modelling of cohesive granular materials: Numerical homogenisation and multi-scale simulations. Acta Geophysica, 2014, 62, 1109-1126.	1.0	60
18	From discrete to continuum modelling of boundary value problems in geomechanics: An integrated FEMâ€ÐEM approach. International Journal for Numerical and Analytical Methods in Geomechanics, 2019, 43, 919-955.	1.7	48

#	Article	IF	Citations
19	Evaluation of different strategies for the integration of hypoplastic constitutive equations: Application to the CLoE model. , 2000, 5, 263-289.		39
20	Brittle-to-ductile transition in Beaucaire marl from triaxial tests under the CT-scanner. International Journal of Rock Mechanics and Minings Sciences, 2008, 45, 653-671.	2.6	38
21	A general formulation of hypoplasticity. International Journal for Numerical and Analytical Methods in Geomechanics, 2004, 28, 1461-1478.	1.7	32
22	A study of the influence of REV variability in doubleâ€scale FEM Ã—DEM analysis. International Journal for Numerical Methods in Engineering, 2016, 107, 882-900.	1.5	26
23	Experimental characterisation of (localised) Deformation Phenomena in Granular Geomaterials from Sample Down to Inter-and Intra-grain Scales. Procedia IUTAM, 2012, 4, 54-65.	1.2	24
24	How does strain localise in standard triaxial tests on sand: Revisiting the mechanism 20 years on. Mechanics Research Communications, 2018, 92, 142-146.	1.0	24
25	An Approach to the Interpretation of the Mechanical Behaviour of Intensely Fissured Clays. Soils and Foundations, 2009, 49, 355-368.	1.3	24
26	A Laboratory Experimental Study of the Hydromechanical Behavior of Boom Clay. Rock Mechanics and Rock Engineering, 2014, 47, 143-155.	2.6	23
27	Grain-scale characterization of water retention behaviour of sand using X-ray CT. Acta Geotechnica, 2018, 13, 497-512.	2.9	23
28	Stereophotogrammetry and Localization in Concrete under Compression. Journal of Engineering Mechanics - ASCE, 1991, 117, 1455-1465.	1.6	22
29	Bifurcations to Diversify Geometrical Patterns of Shear Bands on Granular Material. Physical Review Letters, 2008, 100, 198001.	2.9	19
30	Accounting for Small-Scale Heterogeneity and Variability of Clay Rock in Homogenised Numerical Micromechanical Response and Microcracking. Rock Mechanics and Rock Engineering, 2020, 53, 2727-2746.	2.6	19
31	An Internal Instrumentation for Axial and Radial Strain Measurements in Triaxial Tests. Geotechnical Testing Journal, 2001, 24, 193-199.	0.5	19
32	An Investigation of Diffuse Failure Modes in Undrained Triaxial Tests on Loose Sand. Soils and Foundations, 2006, 46, 585-594.	1.3	14
33	Quelques remarques sur le probleme de la localisation en bande de cisaillement. Mechanics Research Communications, 1984, 11, 145-153.	1.0	10
34	A comparison of incremental behaviour of elastoplastic and CLoE models. International Journal for Numerical and Analytical Methods in Geomechanics, 1999, 23, 295-316.	1.7	9
35	Hydro-mechanical coupling and strain localization in saturated porous media. Revue EuropÃ©enne De GÃ©nie Civil, 2005, 9, 619-634.	0.0	8
36	FEMÃ—DEM multiâ€scale model for cemented granular materials: Interâ€and intraâ€granular cracking induced strain localisation. International Journal for Numerical and Analytical Methods in Geomechanics, 2022, 46, 1001-1025.	1.7	8

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37	Bifurcation par Localisation de la DÃ©formation: Etude ExpÃ©rimentale et ThÃ©orique Ã lâ€™Essai Biaxial sur Sable. , 1986, , 433-459.		6
38	FEM Ã— DEM: a new efficient multi-scale approach for geotechnical problems with strain localization. EPJ Web of Conferences, 2017, 140, 11007.	0.1	6
39	Diffuse bifurcations engraving diverse shear bands in granular materials. International Journal for Numerical and Analytical Methods in Geomechanics, 2018, 42, 3-33.	1.7	5
40	A DEMâ€”FEM two scale approach of the behaviour of granular materials. , 2009, , .		3
41	Experimental investigation of mode I fracture for brittle tube-shaped particles. EPJ Web of Conferences, 2017, 140, 07015.	0.1	3
42	Experimental characterization of failure, degradation and instability in geomaterials. Revue EuropÃ©enne De GÃ©nie Civil, 2004, 8, 563-592.	0.0	2
43	Characterisation of Hydraulic Fractures in Limestones Using X-ray Microtomography. , 0, , 221-227.		2
44	Effect of Claystone Small-Scale Characteristics on the Variability of Micromechanical Response and on Microcracking Modelling. Lecture Notes in Civil Engineering, 2021, , 522-530.	0.3	2
45	Investigation of Uncertainty in Strength Parameter Identification. Lecture Notes in Civil Engineering, 2021, , 277-284.	0.3	2
46	Experimental characterization of localized deformation in geomaterials. Lecture Notes in Applied and Computational Mechanics, 2003, , 77-106.	2.0	2
47	Modelling the multiscale behaviour of claystone: deformation, rupture, and hydro-mechanical phenomena around underground galleries. E3S Web of Conferences, 2020, 205, 10003.	0.2	2
48	X-Ray Tomography Experiments on Sand at Different Scales. Advances in Mechanics and Mathematics, 2020, , 1-20.	0.2	2
49	ModÃ©lisation d'une argilite Ã l'aide du modÃ¨le CLoE. Revue EuropÃ©enne De GÃ©nie Civil, 2002, 6, 89-113.	0.0	1
50	Imaging sand deformation at the grain scale. EPJ Web of Conferences, 2010, 6, 22021.	0.1	1
51	A one parameter damageable contact law for DEM, with application to frictional-cohesive granular materials. EPJ Web of Conferences, 2021, 249, 08013.	0.1	0
52	Localized failure in saturated porous media. , 2004, , 399-410.		0
53	Poro-hypoplastic analysis of the progressive excavation of the Mol URL connecting gallery. , 2006, , 493-498.		0
54	A numerical homogenized law using discrete element method for continuum modelling of boundary value problems. Lecture Notes in Civil Engineering, 2020, , 715-720.	0.3	0