

# Jacques Desrues

## List of Publications by Year in descending order

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54  
papers

3,835  
citations

279701

23  
h-index

223716

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57  
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docs citations

57  
times ranked

2008  
citing authors

#	ARTICLE	IF	CITATIONS
1	FEM–DEM multi-scale model for cemented granular materials: Inter- and intra-granular cracking induced strain localisation. <i>International Journal for Numerical and Analytical Methods in Geomechanics</i> , 2022, 46, 1001-1025.	1.7	8
2	A one parameter damageable contact law for DEM, with application to frictional-cohesive granular materials. <i>EPJ Web of Conferences</i> , 2021, 249, 08013.	0.1	0
3	Effect of Claystone Small-Scale Characteristics on the Variability of Micromechanical Response and on Microcracking Modelling. <i>Lecture Notes in Civil Engineering</i> , 2021, , 522-530.	0.3	2
4	Investigation of Uncertainty in Strength Parameter Identification. <i>Lecture Notes in Civil Engineering</i> , 2021, , 277-284.	0.3	2
5	Accounting for Small-Scale Heterogeneity and Variability of Clay Rock in Homogenised Numerical Micromechanical Response and Microcracking. <i>Rock Mechanics and Rock Engineering</i> , 2020, 53, 2727-2746.	2.6	19
6	Modelling the multiscale behaviour of claystone: deformation, rupture, and hydro-mechanical phenomena around underground galleries. <i>E3S Web of Conferences</i> , 2020, 205, 10003.	0.2	2
7	A numerical homogenized law using discrete element method for continuum modelling of boundary value problems. <i>Lecture Notes in Civil Engineering</i> , 2020, , 715-720.	0.3	0
8	X-Ray Tomography Experiments on Sand at Different Scales. <i>Advances in Mechanics and Mathematics</i> , 2020, , 1-20.	0.2	2
9	From discrete to continuum modelling of boundary value problems in geomechanics: An integrated FEM–DEM approach. <i>International Journal for Numerical and Analytical Methods in Geomechanics</i> , 2019, 43, 919-955.	1.7	48
10	Grain-scale characterization of water retention behaviour of sand using X-ray CT. <i>Acta Geotechnica</i> , 2018, 13, 497-512.	2.9	23
11	Diffuse bifurcations engraving diverse shear bands in granular materials. <i>International Journal for Numerical and Analytical Methods in Geomechanics</i> , 2018, 42, 3-33.	1.7	5
12	How does strain localise in standard triaxial tests on sand: Revisiting the mechanism 20 years on. <i>Mechanics Research Communications</i> , 2018, 92, 142-146.	1.0	24
13	Experimental investigation of mode I fracture for brittle tube-shaped particles. <i>EPJ Web of Conferences</i> , 2017, 140, 07015.	0.1	3
14	FEM – DEM: a new efficient multi-scale approach for geotechnical problems with strain localization. <i>EPJ Web of Conferences</i> , 2017, 140, 11007.	0.1	6
15	A study of the influence of REV variability in double-scale FEM –DEM analysis. <i>International Journal for Numerical Methods in Engineering</i> , 2016, 107, 882-900.	1.5	26
16	Strain localisation in granular media. <i>Comptes Rendus Physique</i> , 2015, 16, 26-36.	0.3	62
17	A Laboratory Experimental Study of the Hydromechanical Behavior of Boom Clay. <i>Rock Mechanics and Rock Engineering</i> , 2014, 47, 143-155.	2.6	23
18	FEM – DEM modelling of cohesive granular materials: Numerical homogenisation and multi-scale simulations. <i>Acta Geophysica</i> , 2014, 62, 1109-1126.	1.0	60

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19	Experimental characterisation of (localised) Deformation Phenomena in Granular Geomaterials from Sample Down to Inter-and Intra-grain Scales. <i>Procedia IUTAM</i> , 2012, 4, 54-65.	1.2	24
20	Grain-scale experimental investigation of localised deformation in sand: a discrete particle tracking approach. <i>Acta Geotechnica</i> , 2012, 7, 1-13.	2.9	276
21	Two-scale modeling of granular materials: a DEM-FEM approach. <i>Granular Matter</i> , 2011, 13, 277-281.	1.1	84
22	Imaging sand deformation at the grain scale. <i>EPJ Web of Conferences</i> , 2010, 6, 22021.	0.1	1
23	Discrete and continuum analysis of localised deformation in sand using X-ray $\mu$ CT and volumetric digital image correlation. <i>Geotechnique</i> , 2010, 60, 315-322.	2.2	477
24	A DEM-FEM two scale approach of the behaviour of granular materials. , 2009, , .		3
25	3D imaging of fracture propagation using synchrotron X-ray microtomography. <i>Earth and Planetary Science Letters</i> , 2009, 286, 285-291.	1.8	84
26	An Approach to the Interpretation of the Mechanical Behaviour of Intensely Fissured Clays. <i>Soils and Foundations</i> , 2009, 49, 355-368.	1.3	24
27	Brittle-to-ductile transition in Beaucaire marl from triaxial tests under the CT-scanner. <i>International Journal of Rock Mechanics and Minings Sciences</i> , 2008, 45, 653-671.	2.6	38
28	Bifurcations to Diversify Geometrical Patterns of Shear Bands on Granular Material. <i>Physical Review Letters</i> , 2008, 100, 198001.	2.9	19
29	Volumetric Digital Image Correlation Applied to X-ray Microtomography Images from Triaxial Compression Tests on Argillaceous Rock. <i>Strain</i> , 2007, 43, 193-205.	1.4	306
30	An Investigation of Diffuse Failure Modes in Undrained Triaxial Tests on Loose Sand. <i>Soils and Foundations</i> , 2006, 46, 585-594.	1.3	14
31	Poro-hypoplastic analysis of the progressive excavation of the Mol URL connecting gallery. , 2006, , 493-498.		0
32	Hydro-mechanical coupling and strain localization in saturated porous media. <i>Revue Européenne De Génie Civil</i> , 2005, 9, 619-634.	0.0	8
33	Experimental characterization of failure, degradation and instability in geomaterials. <i>Revue Européenne De Génie Civil</i> , 2004, 8, 563-592.	0.0	2
34	Strain localization in sand: an overview of the experimental results obtained in Grenoble using stereophotogrammetry. <i>International Journal for Numerical and Analytical Methods in Geomechanics</i> , 2004, 28, 279-321.	1.7	403
35	A general formulation of hypoplasticity. <i>International Journal for Numerical and Analytical Methods in Geomechanics</i> , 2004, 28, 1461-1478.	1.7	32
36	X-ray microtomography for studying localized deformation in fine-grained geomaterials under triaxial compression. <i>Comptes Rendus - Mécanique</i> , 2004, 332, 819-826.	2.1	87

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37	Localized failure in saturated porous media. , 2004, , 399-410.		0
38	Experimental characterization of localized deformation in geomaterials. Lecture Notes in Applied and Computational Mechanics, 2003, , 77-106.	2.0	2
39	Modélisation d'une argilite à l'aide du modèle CLoE. Revue Européenne De Génie Civil, 2002, 6, 89-113.	0.0	1
40	Shear band analysis and shear moduli calibration. International Journal of Solids and Structures, 2002, 39, 3757-3776.	1.3	69
41	An Internal Instrumentation for Axial and Radial Strain Measurements in Triaxial Tests. Geotechnical Testing Journal, 2001, 24, 193-199.	0.5	19
42	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
43	Evaluation of different strategies for the integration of hypoplastic constitutive equations: Application to the CLoE model. , 2000, 5, 263-289.		39
44	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
45	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
46	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
47	Void ratio evolution inside shear bands in triaxial sand specimens studied by computed tomography. Geotechnique, 1996, 46, 529-546.	2.2	589
48	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
49	Stereophotogrammetry and Localization in Concrete under Compression. Journal of Engineering Mechanics - ASCE, 1991, 117, 1455-1465.	1.6	22
50	Shear band analysis for granular materials: The question of incremental non-linearity. Ingenieur-Archiv, 1989, 59, 187-196.	0.6	62
51	Bifurcation par Localisation de la Déformation: Etude Expérimentale et Théorique à l'Essai Biaxial sur Sable. , 1986, , 433-459.		6
52	Localization of the deformation in tests on sand sample. Engineering Fracture Mechanics, 1985, 21, 909-921.	2.0	183
53	Quelques remarques sur le problème de la localisation en bande de cisaillement. Mechanics Research Communications, 1984, 11, 145-153.	1.0	10
54	Characterisation of Hydraulic Fractures in Limestones Using X-ray Microtomography. , 0, , 221-227.		2