

Felix Darve

List of Publications by Year in descending order

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116
papers

2,473
citations

172207

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233125

45
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134
all docs

134
docs citations

134
times ranked

1184
citing authors

#	ARTICLE	IF	CITATIONS
1	Failure Mechanics of Geomaterials. , 2022, , 1077-1109.		0
2	Hyperelastic or Hypoelastic Granular Circular Chain Instability in a Geometrically Exact Framework. Journal of Engineering Mechanics - ASCE, 2022, 148, .	1.6	1
3	How meso shear chains bridge multiscale shear behaviors in granular materials: A preliminary study. International Journal of Solids and Structures, 2022, 252, 111835.	1.3	4
4	Slip lines versus shear bands: Two competing localization modes. Mechanics Research Communications, 2021, 114, 103603.	1.0	10
5	A novel multi-scale large deformation approach for modelling of granular collapse. Acta Geotechnica, 2021, 16, 2371-2388.	2.9	26
6	Multiscale modelling of granular materials in boundary value problems accounting for mesoscale mechanisms. Computers and Geotechnics, 2021, 134, 104143.	2.3	5
7	Constitutive response predictions of both dense and loose soils with a discrete element model. Computers and Geotechnics, 2021, 135, 104161.	2.3	7
8	Micromechanical description of adsorptive-capillary stress in wet fine-grained media. Computers and Geotechnics, 2021, 137, 104047.	2.3	4
9	Advantages of second-order work as a rational safety factor and stability analysis of a reinforced rock slope. Canadian Geotechnical Journal, 2020, 57, 661-672.	1.4	6
10	Buckling of granular systems with discrete and gradient elasticity Cosserat continua. Annals of Solid and Structural Mechanics, 2020, 12, 7-22.	0.5	6
11	Second-order work criterion and divergence criterion: a full equivalence for kinematically constrained systems. Mathematics and Mechanics of Complex Systems, 2020, 8, 1-28.	0.5	0
12	Macroscopic softening in granular materials from a mesoscale perspective. International Journal of Solids and Structures, 2020, 193-194, 222-238.	1.3	46
13	Flutter Kinematic Structural Stability. , 2020, , 125-156.		0
14	Geometrie Degree of Non-conservativity. , 2020, , 157-197.		0
15	Mixed Perturbations and Second-order Work Criterion. , 2020, , 69-102.		0
16	On Stability of Discrete and Asymptotically Continuous Systems. , 2020, , 1-56.		0
17	Buckling of Granular Systems with Shear Interactions: Discrete versus Continuum Approaches. , 2020, , 199-221.		2
18	Divergence Kinematic Structural Stability. , 2020, , 103-123.		0

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19	Continuous Divergence KISS. , 2020, , 223-261.		0
20	Preferential growth of force network in granular media. Granular Matter, 2019, 21, 1.	1.1	9
21	A micromechanical investigation for the effects of pore size and its distribution on geopolymer foam concrete under uniaxial compression. Engineering Fracture Mechanics, 2019, 209, 228-244.	2.0	98
22	Particle methods in geomechanics. International Journal for Numerical and Analytical Methods in Geomechanics, 2019, 43, 831-832.	1.7	3
23	Quantitative prediction of discrete element models on complex loading paths. International Journal for Numerical and Analytical Methods in Geomechanics, 2019, 43, 858-887.	1.7	19
24	A generic approach to modelling flexible confined boundary conditions in <sc>SPH</sc> and its application. International Journal for Numerical and Analytical Methods in Geomechanics, 2019, 43, 1005-1031.	1.7	31
25	Real-time monitoring and FEM-LIP simulation of a rainfall-induced rockslide. Natural Hazards and Earth System Sciences, 2019, 19, 153-168.	1.5	6
26	Intrinsic Incremental Mechanics. Lecture Notes in Computer Science, 2019, , 51-54.	1.0	0
27	Revisiting the existence of an effective stress for wet granular soils with micromechanics. International Journal for Numerical and Analytical Methods in Geomechanics, 2018, 42, 959-978.	1.7	16
28	Microstructure Incidence on the Bifurcation Domain Topology in Granular Materials. Journal of Engineering Mechanics - ASCE, 2018, 144, .	1.6	2
29	Deformation and stresses upon drainage of an idealized granular material. Acta Geotechnica, 2018, 13, 961-972.	2.9	11
30	Granular Materials: Mesoscale Structures and Modeling. , 2018, , 61-93.		0
31	Partially saturated media: from DEM simulation to thermodynamic interpretation. European Journal of Environmental and Civil Engineering, 2017, 21, 798-820.	1.0	11
32	Force chain collapse as grain column buckling in granular materials. Granular Matter, 2017, 19, 1.	1.1	36
33	Strain Localization as a Function of Topological Changes in Mesoscopic Granular Structures. Springer Series in Geomechanics and Geoengineering, 2017, , 459-465.	0.0	2
34	Second-order work criterion: from material point to boundary value problems. Acta Mechanica, 2017, 228, 2483-2498.	1.1	14
35	Coupled flow and deformations in granular systems beyond the pendular regime. EPJ Web of Conferences, 2017, 140, 09017.	0.1	1
36	On the mechanics of meso-scale structures in two-dimensional granular materials. European Journal of Environmental and Civil Engineering, 2017, 21, 912-935.	1.0	12

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37	Geometric Degree of Non Conservativeness. Lecture Notes in Computer Science, 2017, , 355-358.	1.0	0
38	Mesoscopic Scale Instability in Particulate Materials. Journal of Engineering Mechanics - ASCE, 2016, 142, 04016047.	1.6	7
39	Meso-structure evolution in a 2D granular material during biaxial loading. Granular Matter, 2016, 18, 1.	1.1	42
40	On a common critical state in localized and diffuse failure modes. Journal of the Mechanics and Physics of Solids, 2016, 95, 112-131.	2.3	61
41	Meso-structure organization in two-dimensional granular materials along biaxial loading path. International Journal of Solids and Structures, 2016, 96, 25-37.	1.3	46
42	A porous media finite element approach for soil instability including the second-order work criterion. Acta Geotechnica, 2016, 11, 805-825.	2.9	22
43	Failure in granular media from an energy viewpoint. Granular Matter, 2016, 18, 1.	1.1	13
44	Hydro-elasto-plastic modelling with a solid/fluid transition. Computers and Geotechnics, 2016, 75, 69-79.	2.3	13
45	Pore-scale simulations of drainage in granular materials: Finite size effects and the representative elementary volume. Advances in Water Resources, 2016, 95, 109-124.	1.7	54
46	Designing geotechnical structures with a proper stability criterion as a safety factor. Computers and Geotechnics, 2016, 71, 98-114.	2.3	12
47	Kinematical structural stability. Discrete and Continuous Dynamical Systems - Series S, 2016, 9, 529-536.	0.6	6
48	Preface of the special issue on "poromechanics in honour of Arnold Verruijt"™. International Journal for Numerical and Analytical Methods in Geomechanics, 2015, 39, 1483-1483.	1.7	0
49	Describing failure in geomaterials using second-order work approach. Water Science and Engineering, 2015, 8, 89-95.	1.4	4
50	Microstructural self-organization in granular materials during failure. Comptes Rendus - Mecanique, 2015, 343, 143-154.	2.1	14
51	Granular plasticity, a contribution from discrete mechanics. Journal of the Mechanics and Physics of Solids, 2015, 75, 119-139.	2.3	45
52	Failure Mechanics of Geomaterials. , 2015, , 137-169.		0
53	A simple non-linear model for internal friction in modified concrete. International Journal of Engineering Science, 2014, 80, 136-152.	2.7	61
54	Solid"fluid transition modelling in geomaterials and application to a mudflow interacting with an obstacle. International Journal for Numerical and Analytical Methods in Geomechanics, 2014, 38, 1341-1361.	1.7	39

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55	Some micromechanical aspects of failure in granular materials based on second-order work. Comptes Rendus - Mecanique, 2014, 342, 174-188.	2.1	8
56	Divergence and Flutter Instabilities of Some Constrained Two-Degree-of-Freedom Systems. Journal of Engineering Mechanics - ASCE, 2014, 140, 47-52.	1.6	6
57	Geometric degree of nonconservativity. Mathematics and Mechanics of Complex Systems, 2014, 2, 123-139.	0.5	7
58	Incrementally non-linear plasticity applied to rock joint modelling. International Journal for Numerical and Analytical Methods in Geomechanics, 2013, 37, 453-477.	1.7	18
59	Diffuse instabilities with transition to localization in loose granular materials. International Journal for Numerical and Analytical Methods in Geomechanics, 2013, 37, 1292-1311.	1.7	31
60	Second-order work analysis for granular materials using a multiscale approach. International Journal for Numerical and Analytical Methods in Geomechanics, 2013, 37, 2987-3007.	1.7	16
61	Micromechanical analysis of second order work in granular media. Granular Matter, 2013, 15, 221-235.	1.1	34
62	Additional constraints may soften a non-conservative structural system: Buckling and vibration analysis. International Journal of Solids and Structures, 2013, 50, 363-370.	1.3	14
63	To Which Extend the Failure Mode Originates from Microstructure?. Springer Series in Geomechanics and Geoengineering, 2013, , 359-362.	0.0	1
64	A new insight into modelling the behaviour of unsaturated soils. International Journal for Numerical and Analytical Methods in Geomechanics, 2013, 37, 2629-2654.	1.7	28
65	Granular media failure along triaxial proportional strain paths. European Journal of Environmental and Civil Engineering, 2013, 17, 777-790.	1.0	20
66	Material stability analysis of rock joints. International Journal for Numerical and Analytical Methods in Geomechanics, 2013, 37, 2539-2562.	1.7	4
67	A multiscale description of failure in granular materials. , 2013, , .		0
68	Failure Mechanics of Geomaterials. , 2013, , 1-29.		0
69	Multiscale characterisation of diffuse granular failure. Philosophical Magazine, 2012, 92, 4547-4587.	0.7	27
70	Failure in rate-independent granular materials as a bifurcation toward a dynamic regime. International Journal of Plasticity, 2012, 29, 136-154.	4.1	62
71	Some insights into structure instability and the second-order work criterion. International Journal of Solids and Structures, 2012, 49, 132-142.	1.3	19
72	Inertia effects as a possible missing link between micro and macro second-order work in granular media. International Journal of Solids and Structures, 2012, 49, 1252-1258.	1.3	35

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73	Divergence Instability and Diffuse Failure in Granular Media. <i>Procedia IUTAM</i> , 2012, 3, 115-140.	1.2	3
74	Bifurcation and generalized mixed loading conditions in geomaterials. <i>International Journal for Numerical and Analytical Methods in Geomechanics</i> , 2011, 35, 1409-1431.	1.7	6
75	The H-microdirectional model: Accounting for a mesoscopic scale. <i>Mechanics of Materials</i> , 2011, 43, 918-929.	1.7	67
76	Second-order work, kinetic energy and diffuse failure in granular materials. <i>Granular Matter</i> , 2011, 13, 19-28.	1.1	52
77	Failure mechanisms in granular media: a discrete element analysis. <i>Granular Matter</i> , 2011, 13, 255-260.	1.1	16
78	Diffuse and localized failure modes: Two competing mechanisms. <i>International Journal for Numerical and Analytical Methods in Geomechanics</i> , 2011, 35, 586-601.	1.7	72
79	Stability of non-conservative elastic structures under additional kinematics constraints. <i>Engineering Structures</i> , 2010, 32, 3086-3092.	2.6	34
80	Evolution of the micromechanical properties of impacted granular materials. <i>Comptes Rendus - Mecanique</i> , 2010, 338, 639-647.	2.1	17
81	Micromechanical Formulation of Stress Dilatancy as a Flow Rule in Plasticity of Granular Materials. <i>Journal of Engineering Mechanics - ASCE</i> , 2010, 136, 589-598.	1.6	18
82	Comparing numerical and experimental approaches for the stochastic modeling of the bouncing of a boulder on a coarse soil. <i>European Journal of Environmental and Civil Engineering</i> , 2010, 14, 87-111.	1.0	4
83	Reliability analyses of slope stability. <i>European Journal of Environmental and Civil Engineering</i> , 2010, 14, 1227-1257.	1.0	12
84	Reliability analyses of slope stability. Homogeneous slope with circular failure. <i>European Journal of Environmental and Civil Engineering</i> , 2010, 14, 1227-1257.	1.0	8
85	Bayesian stochastic modeling of a spherical rock bouncing on a coarse soil. <i>Natural Hazards and Earth System Sciences</i> , 2009, 9, 831-846.	1.5	25
86	Jean Salençon Président de l'Académie des sciences. <i>European Journal of Environmental and Civil Engineering</i> , 2009, 13, 128-128.	1.0	0
87	Experimental and numerical analyses of failure in very loose sands. <i>European Journal of Environmental and Civil Engineering</i> , 2009, 13, 149-165.	1.0	5
88	A Micromechanical View of Failure in Granular Materials. , 2009, , .		0
89	Three-Dimensional Multiscale Bifurcation Analysis of Granular Media. <i>Journal of Engineering Mechanics - ASCE</i> , 2009, 135, 493-509.	1.6	30
90	Bifurcation in granular materials: An attempt for a unified framework. <i>International Journal of Solids and Structures</i> , 2009, 46, 3938-3947.	1.3	47

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91	Toward objective rockfall trajectory simulation using a stochastic impact model. <i>Geomorphology</i> , 2009, 110, 68-79.	1.1	103
92	3D bifurcation analysis in geomaterials. <i>European Journal of Environmental and Civil Engineering</i> , 2009, 13, 135-147.	1.0	20
93	On the stability of non-conservative elastic systems under mixed perturbations. <i>European Journal of Environmental and Civil Engineering</i> , 2009, 13, 347-367.	1.0	19
94	Analysis of failure occurrence from direct simulations. <i>European Journal of Environmental and Civil Engineering</i> , 2009, 13, 187-201.	1.0	29
95	Physical processes within a 2D granular layer during an impact. <i>Granular Matter</i> , 2008, 10, 415-437.	1.1	91
96	Bifurcation and instability modelling by a multimechanism elasto-plastic model. <i>International Journal for Numerical and Analytical Methods in Geomechanics</i> , 2008, 32, 461-492.	1.7	15
97	Application du crit�re de Hill dans la mod�lisation par �l�ments finis des glissements de terrain de la r�gion de Constantine (Alg�rie). <i>European Journal of Environmental and Civil Engineering</i> , 2008, 12, 747-769.	1.0	1
98	Caract�risation num�rique du ph�nom�ne de localisation des d�formations dans des essais biaxiaux sur sable. <i>European Journal of Environmental and Civil Engineering</i> , 2008, 12, 651-671.	1.0	1
99	Bifurcation and second-order work in geomaterials. <i>International Journal for Numerical and Analytical Methods in Geomechanics</i> , 2007, 31, 1007-1032.	1.7	87
100	Bifurcations in granular media: macro- and micro-mechanics approaches. <i>Comptes Rendus - Mecanique</i> , 2007, 335, 496-515.	2.1	60
101	A micro-mechanical investigation of bifurcation in granular materials. <i>International Journal of Solids and Structures</i> , 2007, 44, 6630-6652.	1.3	78
102	Micro-mechanical bases of some salient constitutive features of granular materials. <i>International Journal of Solids and Structures</i> , 2007, 44, 7420-7443.	1.3	23
103	Basic features of plastic strains: From micro-mechanics to incrementally nonlinear models. <i>International Journal of Plasticity</i> , 2007, 23, 1555-1588.	4.1	47
104	From microscopic to macroscopic second-order work in granular assemblies. <i>Mechanics of Materials</i> , 2007, 39, 664-684.	1.7	40
105	Micro-mechanical investigation of material instability in granular assemblies. <i>International Journal of Solids and Structures</i> , 2006, 43, 3569-3595.	1.3	55
106	On the Elastic and Plastic Strain Decomposition in Granular Materials. <i>Granular Matter</i> , 2006, 8, 221-237.	1.1	23
107	A multi-scale approach to granular materials. <i>Mechanics of Materials</i> , 2005, 37, 980-980.	1.7	100
108	On incremental non-linearity in granular media: phenomenological and multi-scale views (Part I). <i>International Journal for Numerical and Analytical Methods in Geomechanics</i> , 2005, 29, 1387-1409.	1.7	38

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109	On flow rule in granular media: phenomenological and multi-scale views (Part II). International Journal for Numerical and Analytical Methods in Geomechanics, 2005, 29, 1411-1432.	1.7	25
110	Modelling the mechanical interaction between flowing materials and retaining wire structures. Computers and Geotechnics, 2004, 31, 427-441.	2.3	4
111	Fundamentals of constitutive equations for geomaterials. , 2004, , 1-33.		3
112	Constitutive Equations and Instabilities of Granular Materials. Modeling and Simulation in Science, Engineering and Technology, 2002, , 3-43.	0.4	7
113	Liquefaction phenomenon of granular materials and constitutive stability. Engineering Computations, 1996, 13, 5-28.	0.7	24
114	3D Continuous and Discrete Modeling of Bifurcations in Geomaterials. , 0, , 153-175.		0
115	Divergence instability of kinematically constrained Hencky chains: Analytic results and asymptotic behavior. ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik, 0, , e202100157.	0.9	0
116	Static bending of granular beam: exact discrete and nonlocal solutions. Meccanica, 0, , .	1.2	1