Ronaldo

List of Publications by Citations

73 papers	3,545 citations	36 h-index	59 g-index
75 ext. papers	4,188 ext. citations	4.3 avg, IF	6.22 L-index

#	Paper	IF	Citations
73	Cam-Clay plasticity. Part V: A mathematical framework for three-phase deformation and strain localization analyses of partially saturated porous media. *Computer Methods in Applied Mechanics and Engineering*, **2004**, 193, 5301-5338	5.7	196
72	Stabilized low-order finite elements for coupled solid-deformation/fluid-diffusion and their application to fault zone transients. *Computer Methods in Applied Mechanics and Engineering*, **2008**, 197, 4353-4366	5.7	188
71	On the mechanical energy and effective stress in saturated and unsaturated porous continua. *International Journal of Solids and Structures*, **2006**, 43, 1764-1786	3.1	159
70	A finite element model for strain localization analysis of strongly discontinuous fields based on standard Galerkin approximation. *Computer Methods in Applied Mechanics and Engineering*, **2000**, 190, 1529-1549	5.7	147
69	Instrumented nanoindentation and 3D mechanistic modeling of a shale at multiple scales. *Acta Geotechnica*, **2015**, 10, 1-14	4.9	140
68	Centrifuge model test on the face stability of shallow tunnel. *Acta Geotechnica*, **2011**, 6, 105-117	4.9	132
67	Estimating the impact force generated by granular flow on a rigid obstruction. *Acta Geotechnica*, **2009**, 4, 57-71	4.9	132
66	A contact algorithm for frictional crack propagation with the extended finite element method. *International Journal for Numerical Methods in Engineering*, **2008**, 76, 1489-1512	2.4	107
65	Computational modeling of deformation bands in granular media. I. Geological and mathematical framework. *Computer Methods in Applied Mechanics and Engineering*, **2004**, 193, 2667-2698	5.7	107
64	Continuum deformation and stability analyses of a steep hillside slope under rainfall infiltration. *Acta Geotechnica*, **2010**, 5, 1-14	4.9	106
63	Mathematical framework for unsaturated flow in the finite deformation range. *International Journal for Numerical Methods in Engineering*, **2014**, 97, 658-682	2.4	86
62	Bifurcation of elastoplastic solids to shear band mode at finite strain. *Computer Methods in Applied Mechanics and Engineering*, **2002**, 191, 5287-5314	5.7	83
61	Plane strain finite element analysis of pressure sensitive plasticity with strong discontinuity. *International Journal of Solids and Structures*, **2001**, 38, 3647-3672	3.1	83
60	Capturing strain localization in dense sands with random density. *International Journal for Numerical Methods in Engineering*, **2006**, 67, 1531-1564	2.4	82
59	Thermoplasticity and strain localization in transversely isotropic materials based on anisotropic critical state plasticity. *International Journal for Numerical and Analytical Methods in Geomechanics*, **2016**, 40, 2423-2449	4	77
58	On the effective stress in unsaturated porous continua with double porosity. *Journal of the Mechanics and Physics of Solids*, **2009**, 57, 1182-1193	5	75
57	Block-preconditioned Newton-Krylov solvers for fully coupled flow and geomechanics. *Computational Geosciences*, **2011**, 15, 647-659	2.7	74

56	Hydromechanical Modeling of Unsaturated Flow in Double Porosity Media. *International Journal of Geomechanics*, **2016**, 16,	3.1	73
55	Dynamics of unsaturated poroelastic solids at finite strain. *International Journal for Numerical and Analytical Methods in Geomechanics*, **2012**, 36, 1535-1573	4	71
54	Assumed enhanced strain and the extended finite element methods: A unification of concepts. *Computer Methods in Applied Mechanics and Engineering*, **2008**, 197, 2789-2803	5.7	70
53	Stabilized mixed finite elements for deformable porous media with double porosity. *Computer Methods in Applied Mechanics and Engineering*, **2015**, 293, 131-154	5.7	66
52	Shear band in sand with spatially varying density. *Journal of the Mechanics and Physics of Solids*, **2013**, 61, 219-234	5	65
51	Condition for liquefaction instability in fluid-saturated granular soils. *Acta Geotechnica*, **2006**, 1, 211-224	4.9	61
50	Calculating the effective permeability of sandstone with multiscale lattice Boltzmann/finite element simulations. *Acta Geotechnica*, **2006**, 1, 195-209	4.9	61
49	Multiphysics hillslope processes triggering landslides. *Acta Geotechnica*, **2012**, 7, 261-269	4.9	58
48	Cam-Clay plasticity, Part VIII: A constitutive framework for porous materials with evolving internal structure. *Computer Methods in Applied Mechanics and Engineering*, **2016**, 309, 653-679	5.7	55
47	Critical state plasticity. Part VII: Triggering a shear band in variably saturated porous media. *Computer Methods in Applied Mechanics and Engineering*, **2013**, 261-262, 66-82	5.7	53
46	Factor of safety in a partially saturated slope inferred from hydro-mechanical continuum modeling. *International Journal for Numerical and Analytical Methods in Geomechanics*, **2012**, 36, 236-248	4	52
45	Computational modeling of deformation bands in granular media. II. Numerical simulations. *Computer Methods in Applied Mechanics and Engineering*, **2004**, 193, 2699-2718	5.7	52
44	The impacts of hysteresis on variably saturated hydrologic response and slope failure. *Environmental Earth Sciences*, **2010**, 61, 1215-1225	2.9	48
43	Finite element simulation of strain localization with large deformation: capturing strong discontinuity using a Petrov–Galerkin multiscale formulation. *Computer Methods in Applied Mechanics and Engineering*, **2002**, 191, 2949-2978	5.7	45
42	Cam-Clay plasticity. Part IX: On the anisotropy, heterogeneity, and viscoplasticity of shale. *Computer Methods in Applied Mechanics and Engineering*, **2020**, 360, 112695	5.7	44
41	On the strength of transversely isotropic rocks. *International Journal for Numerical and Analytical Methods in Geomechanics*, **2018**, 42, 1917-1934	4	43
40	Finite Deformation and Fluid Flow in Unsaturated Soils with Random Heterogeneity. *Vadose Zone Journal*, **2014**, 13, 1-11	2.7	40
39	Liquefaction potential of coastal slopes induced by solitary waves. *Acta Geotechnica*, **2009**, 4, 17-34	4.9	39

38	On the preferential flow patterns induced by transverse isotropy and non-Darcy flow in double porosity media. *Computer Methods in Applied Mechanics and Engineering*, **2019**, 353, 570-592	5.7	38
37	On the pore-scale mechanisms leading to brittle and ductile deformation behavior of crystalline rocks. *International Journal for Numerical and Analytical Methods in Geomechanics*, **2015**, 39, 1165-1187	4	34
36	Conditions for instabilities in collapsible solids including volume implosion and compaction banding. *Acta Geotechnica*, **2006**, 1, 107-122	4.9	34
35	Generalized Creep and Stress Relaxation Model for Clays. *Journal of Geotechcnical Engineering*, **1992**, 118, 1765-1786		33
34	Continuum hydrodynamics of dry granular flows employing multiplicative elastoplasticity. *Acta Geotechnica*, **2018**, 13, 1027-1040	4.9	32
33	Quantifying the heterogeneity of shale through statistical combination of imaging across scales. *Acta Geotechnica*, **2017**, 12, 1193-1205	4.9	32
32	Pore-scale modeling of deformation and shear band bifurcation in porous crystalline rocks. *International Journal for Numerical Methods in Engineering*, **2016**, 108, 183-212	2.4	30
31	An extended finite element framework for slow-rate frictional faulting with bulk plasticity and variable friction. *International Journal for Numerical and Analytical Methods in Geomechanics*, **2009**, 33, 1535-1560	4	30
30	Mechanical aspects of thrust faulting driven by far-field compression and their implications for fold geometry. *Acta Geotechnica*, **2007**, 2, 17-31	4.9	27
29	Modelling non-linear ground response of non-liquefiable soils. *Earthquake Engineering and Structural Dynamics*, **2000**, 29, 63-83	4	27
28	A continuum framework for coupled solid deformation fluid flow through anisotropic elastoplastic porous media. *Computer Methods in Applied Mechanics and Engineering*, **2020**, 369, 113225	5.7	26
27	Extended finite element framework for fault rupture dynamics including bulk plasticity. *International Journal for Numerical and Analytical Methods in Geomechanics*, **2013**, 37, 3087-3111	4	26
26	Quantifying sensitivity of local site response models to statistical variations in soil properties. *Acta Geotechnica*, **2006**, 1, 3-14	4.9	24
25	Finite deformation formulation for embedded frictional crack with the extended finite element method. *International Journal for Numerical Methods in Engineering*, **2010**, 82, 773-804	2.4	22
24	Implicit J2-bounding surface plasticity using Prager's translation rule. *International Journal for Numerical Methods in Engineering*, **2002**, 55, 1129-1166	2.4	19
23	Simulation of debris flow on an instrumented test slope using an updated Lagrangian continuum particle method. *Acta Geotechnica*, **2020**, 15, 2757-2777	4.9	15
22	Discrete micromechanics of elastoplastic crystals in the finite deformation range. *Computer Methods in Applied Mechanics and Engineering*, **2014**, 275, 234-263	5.7	14
21	Continuum mathematical modeling of slip weakening in geological systems. *Journal of Geophysical Research*, **2007**, 112,		14

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20	Computational Aspects of Elasto-Plastic Deformation in Polycrystalline Solids. *Journal of Applied Mechanics, Transactions ASME*, **2012**, 79,	2.7	13
19	Estimating inelastic sediment deformation from local site response simulations. *Acta Geotechnica*, **2007**, 2, 183-195	4.9	11
18	Capturing strain localization behind a geosynthetic-reinforced soil wall. *International Journal for Numerical and Analytical Methods in Geomechanics*, **2003**, 27, 425-451	4	10
17	Analytical solution of soil deformation and fluid pressure change for a two-layer system with an upper unsaturated soil and a lower saturated soil under external loading. *Journal of Hydrology*, **2020**, 588, 124997	6	10
16	A macroelement stabilization for mixed finite element/finite volume discretizations of multiphase poromechanics. *Computational Geosciences*, **2021**, 25, 775-792	2.7	10
15	Poroelastic coefficients for anisotropic single and double porosity media. *Acta Geotechnica*, **2021**, 16, 3013-3025	4.9	7
14	Anisotropic elastoplastic response of double-porosity media. *Computer Methods in Applied Mechanics and Engineering*, **2021**, 380, 113797	5.7	7
13	Fault propagation and surface rupture in geologic materials with a meshfree continuum method. *Acta Geotechnica*, **2021**, 16, 2463-2486	4.9	6
12	Mechanisms of creep in shale from nanoscale to specimen scale. *Computers and Geotechnics*, **2021**, 136, 104138	4.4	4
11	A continuum meshfree method for sandbox-style numerical modeling of accretionary and doubly vergent wedges. *Journal of Structural Geology*, **2021**, 153, 104466	3	3
10	Preconditioners for multiphase poromechanics with strong capillarity. *International Journal for Numerical and Analytical Methods in Geomechanics*, **2021**, 45, 1141-1168	4	3
9	Impacts of saturation-dependent anisotropy on the shrinkage behavior of clay rocks. *Acta Geotechnica*, **2021**, 16, 3381	4.9	3
8	Deformation and Strength of Transversely Isotropic Rocks. *Springer Series in Geomechanics and Geoengineering*, **2019**, 237-241	0.1	2
7	Coseismic sediment deformation during the 1989 Loma Prieta earthquake. *Journal of Geophysical Research*, **2008**, 113,		2
6	Evolution of anisotropy with saturation and its implications for the elastoplastic responses of clay rocks. *International Journal for Numerical and Analytical Methods in Geomechanics*,	4	2
5	Poroelastic theory of consolidation for a two-layer system with an upper unsaturated soil and a lower saturated soil under fully permeable boundary conditions. *Journal of Hydrology*, **2021**, 596, 125700	6	2
4	Modelling non-linear ground response of non-liquefiable soils **2000**, 29, 63		2
3	Mathematical modeling of consolidation in unsaturated poroelastic soils under fluid flux boundary conditions. *Journal of Hydrology*, **2021**, 595, 125671	6	1

2   Deformation Bands in Granular Media **2005**, 394

1   A thermodynamically consistent quasi-double-porosity thermo-hydro-mechanical model for cell dehydration of plant tissues at subzero temperatures. *Archive of Applied Mechanics*,1   2.2