# Antonio Gens

## List of Publications by Citations



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|---|---|---|---|
| 230 papers | 10,782 citations | 52 h-index | 101 g-index |
| 249 ext. papers | 12,154 ext. citations | 3.3 avg, IF | 6.37 L-index |

| # | Paper | IF | Citations |
|---|---|---|---|
| 230 | A constitutive model for partially saturated soils. *Geotechnique*, **1990**, 40, 405-430 | 3.4 | 1632 |
| 229 | A framework for the behaviour of unsaturated expansive clays. *Canadian Geotechnical Journal*, **1992**, 29, 1013-1032 | 3.2 | 479 |
| 228 | An elasto-plastic model for unsaturated soil incorporating the effects of suction and degree of saturation on mechanical behaviour. *Geotechnique*, **2003**, 53, 123-135 | 3.4 | 396 |
| 227 | Numerical formulation for a simulator (CODE_BRIGHT) for the coupled analysis of saline media. *Engineering Computations*, **1996**, 13, 87-112 | 1.4 | 371 |
| 226 | Modelling the mechanical behaviour of expansive clays. *Engineering Geology*, **1999**, 54, 173-183 | 6 | 369 |
| 225 | Water permeability, water retention and microstructure of unsaturated compacted Boom clay. *Engineering Geology*, **1999**, 54, 117-127 | 6 | 353 |
| 224 | Mechanical behaviour of heavily compacted bentonite under high suction changes. *Geotechnique*, **2003**, 53, 27-40 | 3.4 | 331 |
| 223 | The development of a new hollow cylinder apparatus for investigating the effects of principal stress rotation in soils. *Geotechnique*, **1983**, 33, 355-383 | 3.4 | 321 |
| 222 | Nonisothermal multiphase flow of brine and gas through saline media. *Transport in Porous Media*, **1994**, 15, 271-293 | 3.1 | 271 |
| 221 | Soil□nvironment interactions in geotechnical engineering. *Geotechnique*, **2010**, 60, 3-74 | 3.4 | 261 |
| 220 | A new modelling approach for unsaturated soils using independent stress variables. *Canadian Geotechnical Journal*, **2008**, 45, 511-534 | 3.2 | 215 |
| 219 | A constitutive model for unsaturated soils: thermomechanical and computational aspects. *Computational Mechanics*, **2004**, 33, 453-465 | 4 | 213 |
| 218 | Undrained anisotropy and principal stress rotation in saturated sand. *Geotechnique*, **1984**, 34, 11-27 | 3.4 | 154 |
| 217 | A double structure generalized plasticity model for expansive materials. *International Journal for Numerical and Analytical Methods in Geomechanics*, **2005**, 29, 751-787 | 4 | 152 |
| 216 | On constitutive modelling of unsaturated soils. *Acta Geotechnica*, **2006**, 1, 137-147 | 4.9 | 144 |
| 215 | THM-coupled finite element analysis of frozen soil: formulation and application. *Geotechnique*, **2009**, 59, 159-171 | 3.4 | 133 |
| 214 | A full-scale in situ heating test for high-level nuclear waste disposal: observations, analysis and interpretation. *Geotechnique*, **2009**, 59, 377-399 | 3.4 | 133 |

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| 213 | Finite element formulation and algorithms for unsaturated soils. Part I: Theory. *International Journal for Numerical and Analytical Methods in Geomechanics*, **2003**, 27, 745-765 | 4 | 130 |
| 212 | Suction effects on a compacted clay under non-isothermal conditions. *Geotechnique*, **2003**, 53, 65-81 | 3.4 | 127 |
| 211 | Analysis of a full scale in situ test simulating repository conditions **1998**, 22, 515-548 | | 122 |
| 210 | Interpretation of unsaturated soil behaviour in the stress Saturation space, I: Volume change and water retention behaviour. *Computers and Geotechnics*, **2012**, 43, 178-187 | 4.4 | 115 |
| 209 | Temperature effects on the hydraulic behaviour of an unsaturated clay. *Geotechnical and Geological Engineering*, **2001**, 19, 311-332 | 1.5 | 112 |
| 208 | In situ behaviour of a stiff layered clay subject to thermal loading: observations and interpretation. *Geotechnique*, **2007**, 57, 207-228 | 3.4 | 111 |
| 207 | Chemical impact on the hydro-mechanical behaviour of high-density FEBEX bentonite. *Physics and Chemistry of the Earth*, **2008**, 33, S516-S526 | 3 | 108 |
| 206 | Three-dimensional analysis of slides in cohesive soils. *Geotechnique*, **1988**, 38, 1-23 | 3.4 | 106 |
| 205 | An approach to enhance efficiency of DEM modelling of soils with crushable grains. *Geotechnique*, **2015**, 65, 91-110 | 3.4 | 105 |
| 204 | Compacted soil behaviour: initial state, structure and constitutive modelling. *Geotechnique*, **2013**, 63, 463-478 | 3.4 | 105 |
| 203 | Critical state models in computational geomechanics. *Engineering Computations*, **1988**, 5, 178-197 | 1.4 | 105 |
| 202 | Unsaturated soils: From constitutive modelling to numerical algorithms. *Computers and Geotechnics* , **2008**, 35, 810-824 | 4.4 | 96 |
| 201 | An interface element formulation for the analysis of soil-reinforcement interaction. *Computers and Geotechnics*, **1989**, 7, 133-151 | 4.4 | 95 |
| 200 | A critical assessment of methods of correcting for drift from the yield surface in elasto-plastic finite element analysis. *International Journal for Numerical and Analytical Methods in Geomechanics*, **1985**, 9, 149-159 | 4 | 95 |
| 199 | Influence of rainfall on the deformation and stability of a slope in overconsolidated clays: a case study. *Hydrogeology Journal*, **2003**, 11, 174-192 | 3.1 | 94 |
| 198 | Strain localisation and grain breakage in sand under shearing at high mean stress: insights from in situ X-ray tomography. *Acta Geotechnica*, **2015**, 10, 15-30 | 4.9 | 85 |
| 197 | Cone penetration tests in a virtual calibration chamber. *Geotechnique*, **2011**, 61, 525-531 | 3.4 | 85 |
| 196 | Hydromechanical behaviour of a heterogeneous compacted soil: experimental observations and modelling. *Geotechnique*, **2011**, 61, 367-386 | 3.4 | 82 |

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| 195 | The soilmodels.info project. *International Journal for Numerical and Analytical Methods in Geomechanics*, **2008**, 32, 1571-1572 | 4 | 81 |
| 194 | Vapour Transport in Low Permeability Unsaturated Soils with Capillary Effects. *Transport in Porous Media*, **2000**, 40, 219-241 | 3.1 | 78 |
| 193 | Estimation of parameters in geotechnical backanalysis I. Maximum likelihood approach. *Computers and Geotechnics*, **1996**, 18, 1-27 | 4.4 | 78 |
| 192 | Coupled thermal–hydrological–mechanical analyses of the Yucca Mountain Drift Scale Test—comparison of field measurements to predictions of four different numerical models. *International Journal of Rock Mechanics and Minings Sciences*, **2005**, 42, 680-697 | 6 | 77 |
| 191 | Drained principal stress rotation in saturated sand. *Geotechnique*, **1988**, 38, 59-81 | 3.4 | 75 |
| 190 | A constitutive model for rock joints formulation and numerical implementation. *Computers and Geotechnics*, **1990**, 9, 3-20 | 4.4 | 71 |
| 189 | The role of structure in the chemically induced deformations of FEBEX bentonite. *Applied Clay Science*, **2003**, 23, 229-237 | 5.2 | 67 |
| 188 | DEM modelling of cone penetration tests in a double-porosity crushable granular material. *Computers and Geotechnics*, **2016**, 73, 109-127 | 4.4 | 66 |
| 187 | Interpretation of unsaturated soil behaviour in the stress–saturation space. *Computers and Geotechnics*, **2012**, 43, 111-123 | 4.4 | 63 |
| 186 | Finite element formulation and algorithms for unsaturated soils. Part II: Verification and application. *International Journal for Numerical and Analytical Methods in Geomechanics*, **2003**, 27, 767-790 | 4 | 61 |
| 185 | Multi-scale analysis of cone penetration test (CPT) in a virtual calibration chamber. *Canadian Geotechnical Journal*, **2014**, 51, 51-66 | 3.2 | 60 |
| 184 | A chemo-mechanical constitutive model accounting for cation exchange in expansive clays. *Geotechnique*, **2013**, 63, 221-234 | 3.4 | 60 |
| 183 | Experimental micromechanics: grain-scale observation of sand deformation. *Geotechnique Letters*, **2012**, 2, 107-112 | 1.7 | 59 |
| 182 | Coupled Thermo-Hydro-Mechanical and Chemical Analysis of Expansive Clay Subjected to Heating and Hydration. *Transport in Porous Media*, **2007**, 66, 341-372 | 3.1 | 59 |
| 181 | Estimation of parameters in geotechnical backanalysis II. Application to a tunnel excavation problem. *Computers and Geotechnics*, **1996**, 18, 29-46 | 4.4 | 58 |
| 180 | Factors controlling rock–clay buffer interaction in a radioactive waste repository. *Engineering Geology*, **2002**, 64, 297-308 | 6 | 55 |
| 179 | Numerical simulation of undrained insertion problems in geotechnical engineering with the Particle Finite Element Method (PFEM). *Computers and Geotechnics*, **2017**, 82, 144-156 | 4.4 | 53 |
| 178 | Behaviour of a bentonite barrier in the laboratory: Experimental results up to 8years and numerical simulation. *Physics and Chemistry of the Earth*, **2008**, 33, S476-S485 | 3 | 52 |

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| 177 | PARAMETER AND VARIANCE ESTIMATION IN GEOTECHNICAL BACKANALYSIS USING PRIOR INFORMATION. *International Journal for Numerical and Analytical Methods in Geomechanics*, **1996**, 20, 119-141 | 4 | 51 |
| 176 | Aznalcóllar dam failure. Part 2: Stability conditions and failure mechanism. *Geotechnique*, **2006**, 56, 185-201 | 3.4 | 50 |
| 175 | Fully Coupled Thermo-Hydro-Mechanical Double-Porosity Formulation for Unsaturated Soils. *International Journal of Geomechanics*, **2016**, 16, | 3.1 | 49 |
| 174 | Shear strength of rock joints influenced by compacted infill. *International Journal of Rock Mechanics and Minings Sciences*, **2014**, 70, 296-307 | 6 | 47 |
| 173 | Grading evolution and critical state in a discrete numerical model of Fontainebleau sand. *Geotechnique*, **2019**, 69, 1-15 | 3.4 | 47 |
| 172 | THM analysis of a large-scale heating test incorporating material fabric changes. *International Journal for Numerical and Analytical Methods in Geomechanics*, **2012**, 36, 391-421 | 4 | 44 |
| 171 | Aznalcóllar dam failure. Part 1: Field observations and material properties. *Geotechnique*, **2006**, 56, 165-183 | 3.4 | 44 |
| 170 | Coupled effective stress analysis of insertion problems in geotechnics with the Particle Finite Element Method. *Computers and Geotechnics*, **2018**, 101, 114-129 | 4.4 | 43 |
| 169 | Evaluation of a constitutive model for clays and sands: Part II clay behaviour. *International Journal for Numerical and Analytical Methods in Geomechanics*, **2002**, 26, 1123-1146 | 4 | 43 |
| 168 | Simulation of cement-improved clay structures with a bonded elasto-plastic model: A practical approach. *Computers and Geotechnics*, **2012**, 45, 140-150 | 4.4 | 41 |
| 167 | Precompression design for secondary settlement reduction. *Geotechnique*, **2000**, 50, 645-656 | 3.4 | 41 |
| 166 | The effect of the plastic potential in boundary value problems involving plane strain deformation. *International Journal for Numerical and Analytical Methods in Geomechanics*, **1984**, 8, 259-286 | 4 | 40 |
| 165 | A stress point algorithm for an elastoplastic model in unsaturated soils. *International Journal of Plasticity*, **2000**, 16, 121-141 | 7.6 | 38 |
| 164 | Sand production simulation coupling DEM with CFD. *European Journal of Environmental and Civil Engineering*, **2014**, 18, 983-1008 | 1.5 | 35 |
| 163 | Sphericity measures of sand grains. *Engineering Geology*, **2019**, 254, 43-53 | 6 | 34 |
| 162 | Porosity variations in saline media caused by temperature gradients coupled to multiphase flow and dissolution/precipitation. *Transport in Porous Media*, **1996**, 25, 1-25 | 3.1 | 34 |
| 161 | Artificial ground freezing of a volcanic ash: laboratory tests and modelling. *Environmental Geotechnics*, **2016**, 3, 141-154 | 1.2 | 31 |
| 160 | Constitutive Laws **1995**, 129-158 | | 30 |

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| 159 | Determination of the critical state of granular materials with triaxial tests. *Soils and Foundations*, **2017**, 57, 733-744 | 2.9 | 29 |
| 158 | Performance of mixed formulations for the particle finite element method in soil mechanics problems. *Computational Particle Mechanics*, **2017**, 4, 269-284 | 3 | 29 |
| 157 | Thermal Conductivity of Argillaceous Rocks: Determination Methodology Using In Situ Heating Tests. *Rock Mechanics and Rock Engineering*, **2014**, 47, 111-129 | 5.7 | 29 |
| 156 | Thermal–hydraulic–mechanical (THM) behaviour of a large-scale in situ heating experiment during cooling and dismantling. *Canadian Geotechnical Journal*, **2012**, 49, 1169-1195 | 3.2 | 28 |
| 155 | Soil deformation around a penetrating cone in silt. *Geotechnique Letters*, **2013**, 3, 185-191 | 1.7 | 28 |
| 154 | Implementation algorithm of a generalised plasticity model for swelling clays. *Computers and Geotechnics*, **2008**, 35, 860-871 | 4.4 | 28 |
| 153 | A time-dependent anisotropic model for argillaceous rocks. Application to an underground excavation in Callovo-Oxfordian claystone. *Computers and Geotechnics*, **2017**, 85, 341-350 | 4.4 | 27 |
| 152 | A constitutive model for crushed salt. *International Journal for Numerical and Analytical Methods in Geomechanics*, **2002**, 26, 719-746 | 4 | 27 |
| 151 | Modelling unsaturated soil behaviour during normal consolidation and at critical state. *Computers and Geotechnics*, **2008**, 35, 825-834 | 4.4 | 26 |
| 150 | Analysis of tunnel excavation in London Clay incorporating soil structure. *Geotechnique*, **2012**, 62, 1095-1109 | 3.4 | 24 |
| 149 | The landslide of Cortes de Pallas, Spain. *Geotechnique*, **1993**, 43, 507-521 | 3.4 | 24 |
| 148 | Low-order stabilized finite element for the full Biot formulation in soil mechanics at finite strain. *International Journal for Numerical and Analytical Methods in Geomechanics*, **2019**, 43, 1488-1515 | 4 | 23 |
| 147 | Nonlocal plasticity modelling of strain localisation in stiff clays. *Computers and Geotechnics*, **2018**, 103, 138-150 | 4.4 | 23 |
| 146 | A numerical investigation of the incremental behavior of crushable granular soils. *International Journal for Numerical and Analytical Methods in Geomechanics*, **2016**, 40, 1773-1798 | 4 | 22 |
| 145 | Clay barriers in radioactive waste disposal. *Revue Européenne De Génie Civil*, **2001**, 5, 845-856 | | 22 |
| 144 | Modelling thermo-hydro-mechano-chemical interactions for nuclear waste disposal. *Journal of Rock Mechanics and Geotechnical Engineering*, **2010**, 2, 97-102 | 5.3 | 20 |
| 143 | Laboratory X-ray Tomography: A Valuable Experimental Tool for Revealing Processes in Soils. *Geotechnical Testing Journal*, **2014**, 38, 20140060 | 1.3 | 20 |
| 142 | Standard penetration testing in a virtual calibration chamber. *Computers and Geotechnics*, **2019**, 111, 277-289 | 4.4 | 19 |

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| 141 | Aznalcllar dam failure. Part 3: Dynamics of the motion. *Geotechnique*, **2006**, 56, 203-210 | 3.4 | 19 |
| 140 | A hydro-geochemical analysis of the saturation process with salt water of a bentonite crushed granite rock mixture in an engineered nuclear barrier. *Engineering Geology*, **2005**, 81, 227-245 | 6 | 18 |
| 139 | Double structure THM analyses of a heating test in a fractured tuff incorporating intrinsic permeability variations. *International Journal of Rock Mechanics and Minings Sciences*, **2005**, 42, 667-679 | 6 | 17 |
| 138 | Analysis of the hydration of a bentonite seal in a deep radioactive waste repository. *Engineering Geology*, **2005**, 81, 317-328 | 6 | 17 |
| 137 | A stable mesh-independent approach for numerical modelling of structured soils at large strains. *Computers and Geotechnics*, **2019**, 116, 103215 | 4.4 | 16 |
| 136 | Breakage mechanisms of highly porous particles in 1D compression revealed by X-ray tomography. *Geotechnique Letters*, **2018**, 8, 155-160 | 1.7 | 16 |
| 135 | Micromechanical inspection of incremental behaviour of crushable soils. *Acta Geotechnica*, **2019**, 14, 1337-1356 | 4.9 | 15 |
| 134 | Temperature effects on the hydraulic behaviour of an unsaturated clay **2001**, 311-332 | | 15 |
| 133 | Efficiency of a borehole seal by means of pre-compacted bentonite blocks. *Physics and Chemistry of the Earth*, **2007**, 32, 123-134 | 3 | 14 |
| 132 | Formulation of quasi-axisymmetric boundary value problems for finite element analysis. *Engineering Computations*, **1984**, 1, 144-150 | 1.4 | 14 |
| 131 | Image-based calibration of rolling resistance in discrete element models of sand. *Computers and Geotechnics*, **2021**, 131, 103929 | 4.4 | 14 |
| 130 | Thrust and torque components on mixed-face EPB drives. *Tunnelling and Underground Space Technology*, **2016**, 57, 47-54 | 5.7 | 13 |
| 129 | A Mechanism Contributing to Subsidence Above Gas Reservoirs and its Application to a Case Study. *International Journal for Computational Methods in Engineering Science and Mechanics*, **2008**, 9, 270-287 | 0.7 | 13 |
| 128 | A cross-anisotropic formulation for elasto-plastic models. *Geotechnique Letters*, **2016**, 6, 156-162 | 1.7 | 12 |
| 127 | Homogenization in clay barriers and seals: Two case studies. *Journal of Rock Mechanics and Geotechnical Engineering*, **2013**, 5, 191-199 | 5.3 | 11 |
| 126 | Applications of multiphysical geomechanics in underground nuclear waste storage. *European Journal of Environmental and Civil Engineering*, **2009**, 13, 937-962 | 1.5 | 11 |
| 125 | Feasibility of constructing a full-scale radioactive high-level waste disposal cell and characterization of its thermo-hydro-mechanical behavior. *International Journal of Rock Mechanics and Minings Sciences*, **2021**, 137, 104555 | 6 | 11 |
| 124 | Numerical analysis of suction embedded plate anchors in structured clay. *Applied Ocean Research*, **2016**, 61, 156-166 | 3.4 | 10 |

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| 123 | Identification of Bonded Clay Parameters in SBPM Tests: A Numerical Study. *Soils and Foundations*, **2009**, 49, 329-340 | 2.9 | 10 |
| 122 | Homogeneity and Symmetry in DEM Models of Cone Penetration **2009**, | | 10 |
| 121 | THM and reactive transport analysis of expansive clay barrier in radioactive waste isolation. *Communications in Numerical Methods in Engineering*, **2006**, 22, 849-859 | | 10 |
| 120 | THM phenomena in saturated and unsaturated porous media. *Revue Europ□anne De G□ie Civil*, **2001**, 5, 693-717 | | 10 |
| 119 | Performance of the Opalinus Clay under thermal loading: experimental results from Mont Terri rock laboratory (Switzerland). *Swiss Journal of Geosciences*, **2017**, 110, 269-286 | 2.1 | 9 |
| 118 | Analysis of hydro-mechanical processes in a ventilated tunnel in an argillaceous rock on the basis of different modelling approaches. *Journal of Rock Mechanics and Geotechnical Engineering*, **2013**, 5, 1-17 | 5.3 | 9 |
| 117 | Coupled analysis of a backfill hydration test. *International Journal for Numerical and Analytical Methods in Geomechanics*, **1998**, 22, 1-27 | 4 | 8 |
| 116 | Rock joints: FEM implementation and applications. *Studies in Applied Mechanics*, **1995**, 395-420 | | 8 |
| 115 | Evaluation of safety factors in discontinuous rock. *International Journal of Rock Mechanics and Mining Sciences*, **1996**, 33, 513-537 | | 8 |
| 114 | Suction effects on a compacted clay under non-isothermal conditions. *Geotechnique*, **2003**, 53, 65-81 | 3.4 | 8 |
| 113 | Characterisation of the multi-scale fabric features of high plasticity clays. *Geotechnique Letters*, **2019**, 9, 361-368 | 1.7 | 8 |
| 112 | Hydraulic conductivity from piezocone on-the-fly: a numerical evaluation. *Geotechnique Letters*, **2018**, 8, 268-277 | 1.7 | 8 |
| 111 | Erratum to □nterpretation of unsaturated soil behaviour in the stress□aturation space II: Constitutive relationships and validations□*Computers and Geotechnics*, **2012**, 43, 177 | 4.4 | 7 |
| 110 | Influence of Water Chemistry on the Swelling Capacity of a High-Density Bentonite **2006**, 962 | | 7 |
| 109 | Monitoring and modeling of slope response to climate changes **2008**, 67-84 | | 7 |
| 108 | Beacon: bentonite mechanical evolution. *EPJ Nuclear Sciences & Technologies*, **2020**, 6, 23 | 1 | 7 |
| 107 | Analysis of unsaturated materials hydration incorporating the effect of thermo-osmotic flow. *Geomechanics for Energy and the Environment*, **2016**, 6, 101-115 | 3.7 | 7 |
| 106 | Relative performance of two unsaturated soil models using different constitutive variables. *Canadian Geotechnical Journal*, **2014**, 51, 1423-1437 | 3.2 | 6 |

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| 105 | Wear and abrasivity: observations from EPB drives in mixed soft rock sections. *Geomechanik Und Tunnelbau*, **2015**, 8, 258-264 | 0.6 | 6 |
| 104 | Sensitivity to damping in sand production DEM-CFD coupled simulations **2013**, | | 6 |
| 103 | Reply to the discussion by Zhang and Lytton on A new modelling approach for unsaturated soils using independent stress variables Appears in Canadian Geotechnical Journal, 45(12): 1784 1787.. *Canadian Geotechnical Journal*, **2008**, 45, 1788-1794 | 3.2 | 6 |
| 102 | Highly selective formation of aldehydes in the hydrogenation of the corresponding acid chlorides with silica-supported palladium catalysts prepared by a complexing agent-assisted sol gel method. *Applied Catalysis A: General*, **2002**, 229, 175-180 | 5.1 | 6 |
| 101 | Particle failure in DEM models of crushable soil response **2014**, 345-350 | | 6 |
| 100 | Hybrid multi-scale model for partially saturated media based on a pore network approach and lattice Boltzmann method. *Advances in Water Resources*, **2020**, 144, 103709 | 4.7 | 6 |
| 99 | Conceptual uncertainties in modelling the interaction between engineered and natural barriers of nuclear waste repositories in crystalline rocks. *Geological Society Special Publication*, **2019**, 482, 261-283 | 1.7 | 5 |
| 98 | Steady state of solid-grain interfaces during simulated CPT. *Studia Geotechnica Et Mechanica*, **2013**, 35, 13-22 | 1 | 5 |
| 97 | Heating pulse tests under constant volume on Boom clay. *Journal of Rock Mechanics and Geotechnical Engineering*, **2010**, 2, 124-128 | 5.3 | 5 |
| 96 | A Constitutive Model that Incorporates the Effect of Suction in Cemented Geological Materials **2006**, 1944 | | 5 |
| 95 | Explicit finite deformation stress integration of the elasto-plastic constitutive equations **2014**, 267-272 | | 5 |
| 94 | Analysis of cone penetration in brittle liquefiable soils. *Computers and Geotechnics*, **2021**, 134, 104123 | 4.4 | 5 |
| 93 | HM and THM interactions in bentonite engineered barriers for nuclear waste disposal. *International Journal of Rock Mechanics and Minings Sciences*, **2021**, 137, 104572 | 6 | 5 |
| 92 | Analysis of the Expansive Clay Hydration under Low Hydraulic Gradient **2007**, 309-318 | | 5 |
| 91 | Micro-scale investigation of unsaturated sand in mini-triaxial shearing using X-ray CT. *Geotechnique Letters*, **2019**, 9, 269-277 | 1.7 | 4 |
| 90 | A pressuremeter-based evaluation of structure in London Clay using a kinematic hardening constitutive model. *Acta Geotechnica*, **2020**, 15, 2089-2101 | 4.9 | 4 |
| 89 | Numerical simulation of the undrained stability of slopes in anisotropic fine-grained soils. *Geomechanics and Geoengineering*, **2019**, 14, 18-29 | 1.4 | 4 |
| 88 | Thermo-hydro-mechanical model of the Canister Retrieval Test. *Physics and Chemistry of the Earth*, **2011**, 36, 1806-1816 | 3 | 4 |

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| 87 | Effect of thermo-coupled processes on the behaviour of a clay barrier submitted to heating and hydration. *Anais Da Academia Brasileira De Ciencias*, **2010**, 82, 153-68 | 1.4 | 4 |
| 86 | Hydro-mechanical behaviour of a clayey silt under isotropic compression **2005**, 331-342 | | 4 |
| 85 | THMC coupling in partially saturated geomaterials. *Revue Europ□nne De G□nie Civil*, **2005**, 9, 747-765 | | 4 |
| 84 | Linking shape and rotation of grains during triaxial compression of sand. *Granular Matter*, **2020**, 22, 1 | 2.6 | 4 |
| 83 | Modelling gas flow in clay materials incorporating material heterogeneity and embedded fractures. *International Journal of Rock Mechanics and Minings Sciences*, **2020**, 136, 104524 | 6 | 4 |
| 82 | Energy balance analyses during Standard Penetration Tests in a virtual calibration chamber. *Computers and Geotechnics*, **2021**, 133, 104040 | 4.4 | 4 |
| 81 | A full-scale in situ heating test in Callovo-Oxfordian claystone: observations, analysis and interpretation. *Computers and Geotechnics*, **2021**, 133, 104045 | 4.4 | 4 |
| 80 | Increasing understanding and confidence in THM simulations of Engineered Barrier Systems. *Environmental Geotechnics*, **2020**, 7, 59-71 | 1.2 | 4 |
| 79 | Analysis of the Thmc Behaviour of Compacted Swelling Clay for Radioactive Waste Isolation. *Elsevier Geo-Engineering Book Series*, **2004**, 2, 317-322 | | 3 |
| 78 | Coupled phenomena induced by freezing in a granular material **2013**, 467-473 | | 3 |
| 77 | Abrasivity measures on geotechnical materials of the Barcelona area **2014**, 345-350 | | 3 |
| 76 | Marchetti Flat Dilatometer Tests in a Virtual Calibration Chamber. *Geotechnical Testing Journal*, **2018**, 41, 20170370 | 1.3 | 3 |
| 75 | Exploring ice content on partially saturated frozen soils using dielectric permittivity and bulk electrical conductivity measurements. *E3S Web of Conferences*, **2016**, 9, 07005 | 0.5 | 3 |
| 74 | An effective combined framework for modelling the time-dependent behaviour of soft structured clays. *Acta Geotechnica*, **2021**, 16, 535-550 | 4.9 | 3 |
| 73 | Microstructural Changes Underlying the Macro-response of a Stiff Clay. *Trends in Mathematics*, **2018**, 89-97 | 0.3 | 3 |
| 72 | On the Stability of Underground Caves in Calcareous Rocks Due to Long-Term Weathering. *Rock Mechanics and Rock Engineering*, **2020**, 53, 3885-3901 | 5.7 | 2 |
| 71 | DEM Investigation of Particle Crushing Effects on Static and Dynamic Penetration Tests. *Springer Series in Geomechanics and Geoengineering*, **2018**, 274-278 | 0.1 | 2 |
| 70 | Freezing-thawing tests on natural pyroclastic samples **2014**, 1689-1694 | | 2 |

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| 69 | Evaluation of a constitutive model for unsaturated soils **2010**, 829-836 | | 2 |
| 68 | THM Analysis of a Heating Test in a Fractured Tuff. *Elsevier Geo-Engineering Book Series*, **2004**, 2, 181-186 | | 2 |
| 67 | Water retention properties of Boom clay **2008**, 229-234 | | 2 |
| 66 | DEM modelling of dynamic penetration in granular material **2018**, 415-418 | | 2 |
| 65 | Three-dimensional analysis of penetration problems using G-PFEM **2018**, 643-650 | | 2 |
| 64 | Response of a saturated mudstone under excavation and thermal loading **2006**, 35-44 | | 2 |
| 63 | Mapping deformation during CPT in a virtual calibration chamber **2010**, 559-564 | | 2 |
| 62 | Thermo-Hydraulic Behaviour of Boom Clay Using a Heating Cell: An Experimental Study. *Springer Series in Geomechanics and Geoengineering*, **2013**, 163-168 | 0.1 | 2 |
| 61 | Numerical Analysis of Radioactive Waste Disposal **2001**, 203-234 | | 2 |
| 60 | Water Phase Change and Vapour Transport in Low Permeability Unsaturated Soils with Capillary Effects. *Theory and Applications of Transport in Porous Media*, **2000**, 245-272 | 0.4 | 2 |
| 59 | A contact model for rough crushable sand. *Soils and Foundations*, **2021**, 61, 798-798 | 2.9 | 2 |
| 58 | SDMT-Based Numerical Analyses of Deep Excavation in Soft Soil. *Journal of Geotechnical and Geoenvironmental Engineering - ASCE*, **2019**, 145, 04018102 | 3.4 | 2 |
| 57 | Numerical simulation of underground excavations in an indurated clay using non-local regularisation. Part 1: formulation and base case. *Geotechnique*,1-21 | 3.4 | 2 |
| 56 | Modelling the Mechanical Behaviour of Callovo-Oxfordian Argillite. Formulation and Application. *Springer Series in Geomechanics and Geoengineering*, **2017**, 37-44 | 0.1 | 1 |
| 55 | Clays in natural and engineered barriers for nuclear waste disposal. *Geomechanics for Energy and the Environment*, **2019**, 17, 1-2 | 3.7 | 1 |
| 54 | Benchmark cases for a multi-component Lattice-Boltzmann method in hydrostatic conditions. *MethodsX*, **2020**, 7, 101090 | 1.9 | 1 |
| 53 | On the choice of stress-strain variables for unsaturated soils and its effect on plastic flow. *Geomechanics for Energy and the Environment*, **2018**, 15, 3-9 | 3.7 | 1 |
| 52 | Anisotropic behaviour of compacted clayey silt subjected to hydromechanical paths. *E3S Web of Conferences*, **2016**, 9, 14021 | 0.5 | 1 |

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| 51 | A chemo-mechanical constitutive model accounting for cation exchange in expansive clays **2014**, 18-31 | | 1 |
| 50 | Modelling Compacted Soil Behaviour Including Microstructural Features **2012**, 119-127 | | 1 |
| 49 | COUPLED ANALYSIS OF DOUBLE POROSITY SWELLING CLAYS. *Springer Series in Geomechanics and Geoengineering*, **2011**, 85-88 | 0.1 | 1 |
| 48 | Developments in modelling the generalised behaviour of unsaturated soils **2008**, 53-61 | | 1 |
| 47 | New data about surface subsidence above gas reservoirs. *Revue Europ□enne De G□nie Civil*, **2005**, 9, 817-825 | | 1 |
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