

# Matteo O Ciantia

## List of Publications by Year in descending order

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49  
papers

1,069  
citations

567281  
15  
h-index

434195  
31  
g-index

63  
all docs

63  
docs citations

63  
times ranked

724  
citing authors

#	ARTICLE	IF	CITATIONS
1	An approach to enhance efficiency of DEM modelling of soils with crushable grains. <i>Geotechnique</i> , 2015, 65, 91-110.	4.0	147
2	Experimental Study on the Water-Induced Weakening of Calcarenes. <i>Rock Mechanics and Rock Engineering</i> , 2015, 48, 441-461.	5.4	124
3	Effects of mineral suspension and dissolution on strength and compressibility of soft carbonate rocks. <i>Engineering Geology</i> , 2015, 184, 1-18.	6.3	96
4	DEM modelling of cone penetration tests in a double-porosity crushable granular material. <i>Computers and Geotechnics</i> , 2016, 73, 109-127.	4.7	92
5	Grading evolution and critical state in a discrete numerical model of Fontainebleau sand. <i>Geotechnique</i> , 2019, 69, 1-15.	4.0	85
6	Weathering of submerged stressed calcarenites: chemo-mechanical coupling mechanisms. <i>Geotechnique</i> , 2013, 63, 768-785.	4.0	62
7	Simulation of cement-improved clay structures with a bonded elasto-plastic model: A practical approach. <i>Computers and Geotechnics</i> , 2012, 45, 140-150.	4.7	48
8	Standard penetration testing in a virtual calibration chamber. <i>Computers and Geotechnics</i> , 2019, 111, 277-289.	4.7	31
9	A stable mesh-independent approach for numerical modelling of structured soils at large strains. <i>Computers and Geotechnics</i> , 2019, 116, 103215.	4.7	31
10	A numerical investigation of the incremental behavior of crushable granular soils. <i>International Journal for Numerical and Analytical Methods in Geomechanics</i> , 2016, 40, 1773-1798.	3.3	30
11	Extension of plasticity theory to debonding, grain dissolution, and chemical damage of calcarenites. <i>International Journal for Numerical and Analytical Methods in Geomechanics</i> , 2016, 40, 315-343.	3.3	27
12	Plasticity with generalized hardening: constitutive modeling and computational aspects. <i>Acta Geotechnica</i> , 2016, 11, 595-623.	5.7	22
13	Micromechanical inspection of incremental behaviour of crushable soils. <i>Acta Geotechnica</i> , 2019, 14, 1337-1356.	5.7	21
14	A methodological approach to assess the hazard of underground cavities subjected to environmental weathering. <i>Tunnelling and Underground Space Technology</i> , 2018, 82, 278-292.	6.2	20
15	Modelling weathering effects on the mechanical behaviour of rocks. <i>European Journal of Environmental and Civil Engineering</i> , 2016, 20, 1054-1082.	2.1	19
16	Geotechnical particle finite element method for modeling of soil-structure interaction under large deformation conditions. <i>Journal of Rock Mechanics and Geotechnical Engineering</i> , 2022, 14, 967-983.	8.1	19
17	Simplifying calibration of bonded elasto-plastic models. <i>Computers and Geotechnics</i> , 2016, 73, 100-108.	4.7	17
18	Micromechanical investigation of grouting in soils. <i>International Journal of Solids and Structures</i> , 2020, 187, 121-132.	2.7	16

#	ARTICLE	IF	CITATIONS
19	Effects of screw pile installation on installation requirements and in-service performance using the discrete element method. Canadian Geotechnical Journal, 2021, 58, 1334-1350.	2.8	15
20	A contact model for rough crushable sand. Soils and Foundations, 2021, 61, 798-814.	3.1	13
21	Using discrete element method (DEM) to create a cone penetration test (CPT)-based method to estimate the installation requirements of rotary-installed piles in sand. Canadian Geotechnical Journal, 0, , 1-17.	2.8	12
22	Calculating the State Parameter in Crushable Sands. International Journal of Geomechanics, 2020, 20, 04020095.	2.7	12
23	A finite deformation multiplicative plasticity model with non-local hardening for bonded geomaterials. Computers and Geotechnics, 2021, 137, 104209.	4.7	11
24	Numerical techniques for fast generation of large discrete-element models. Proceedings of the Institution of Civil Engineers: Engineering and Computational Mechanics, 2018, 171, 147-161.	0.4	10
25	A 3D Numerical Approach to Assess the Temporal Evolution of Settlement Damage to Buildings on Cavities Subject to Weathering. Rock Mechanics and Rock Engineering, 2018, 51, 2839-2862.	5.4	10
26	DEM study of particle scale and penetration rate on the installation mechanisms of screw piles in sand. Computers and Geotechnics, 2021, 139, 104380.	4.7	10
27	Energy balance analyses during Standard Penetration Tests in a virtual calibration chamber. Computers and Geotechnics, 2021, 133, 104040.	4.7	9
28	Assessing single-helix screw pile geometry on offshore installation and axial capacity. Proceedings of the Institution of Civil Engineers: Geotechnical Engineering, 2021, 174, 512-529.	1.6	9
29	A digital tool based on Genetic Algorithms and Limit Analysis for the seismic assessment of historic masonry buildings. Procedia Structural Integrity, 2020, 28, 1511-1519.	0.8	7
30	Particle failure in DEM models of crushable soil response. , 2014, , 345-350.		7
31	Centrifuge modelling of root-soil interaction of laterally loaded trees under different loading conditions. Geotechnique, 2023, 73, 766-780.	4.0	7
32	On the Stability of Underground Caves in Calcareous Rocks Due to Long-Term Weathering. Rock Mechanics and Rock Engineering, 2020, 53, 3885-3901.	5.4	5
33	Discrete Element Modeling of Compound Rockfall Fence Nets. Lecture Notes in Civil Engineering, 2021, , 560-567.	0.4	4
34	Multiscale modelling of dynamic impact on highly deformable compound rockfall fence nets. Proceedings of the Institution of Civil Engineers: Geotechnical Engineering, 0, , 1-35.	1.6	3
35	Comparison of strength criteria of rock under complex stress state. , 2014, , 734-739.		2
36	On the progressive nature of grain crushing. EPJ Web of Conferences, 2017, 140, 07006.	0.3	2

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37	DEM Investigation of Particle Crushing Effects on Static and Dynamic Penetration Tests. Springer Series in Geomechanics and Geoengineering, 2018, , 274-278.	0.1	2
38	Micromechanics of Pile Cyclic Response in Sand. Lecture Notes in Civil Engineering, 2021, , 527-535.	0.4	2
39	Evaluation of the Stability of Underground Cavities in Calcarenite Interacting with Buildings Using Numerical Analysis. , 2015, , 65-69.		2
40	Using discrete-element method hindcasting of screw pile performance for practical design. Geotechnique Letters, 2021, 11, 1-7.	1.2	2
41	Periodic cells for large-scale problem initialization. EPJ Web of Conferences, 2017, 140, 15012.	0.3	1
42	Impermeable membranes for slab-track settlement mitigation. Environmental Geotechnics, 2018, 5, 204-221.	2.3	1
43	A theory of plasticity with generalized hardening for natural geomaterials under mechanical and environmental loading: Constitutive modeling and numerical implementation. , 2014, , 81-90.		1
44	High resolution incremental stress testing of crushable granular materials. E3S Web of Conferences, 2019, 92, 14009.	0.5	0
45	Effects of particle breakage and stress reversal on the behaviour of sand around displacement piles. Geotechnique, 2019, 69, 1029-1030.	4.0	0
46	DEM examination of SPT correction factors. EPJ Web of Conferences, 2021, 249, 14017.	0.3	0
47	Simplified numerical method for tunnel design under seismic condition: Some examples about Istanbul Metro design, Kadikoy-Kartal Line. , 2012, , 769-782.		0
48	Developing Screw Piles for Offshore Renewable Energy Application. Lecture Notes in Civil Engineering, 2020, , 101-119.	0.4	0
49	Editorial: Tailing dams “slow responses to risks long known. Proceedings of the Institution of Civil Engineers: Geotechnical Engineering, 2022, 175, 139-141.	1.6	0