

Catherine O'Sullivan

List of Publications by Year in descending order

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Version: 2024-02-01

194
papers

7,309
citations

71004

43
h-index

87275

74
g-index

199
all docs

199
docs citations

199
times ranked

5339
citing authors

#	ARTICLE	IF	CITATIONS
1	The influence of particle size distribution on the stress distribution in granular materials. <i>Geotechnique</i> , 2023, 73, 250-264.	2.2	14
2	Using geophysical data to quantify stress transmission in gap-graded granular materials. <i>Geotechnique</i> , 2022, 72, 565-582.	2.2	15
3	Comparative analysis of porosity coarse-graining techniques for discrete element simulations of dense particulate systems. <i>Computational Particle Mechanics</i> , 2022, 9, 199-219.	1.5	2
4	Microscale characterisation of the time-dependent mechanical behaviour of brain white matter. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2022, 125, 104917.	1.5	12
5	Exploiting DEM to Link Thermal Conduction and Elastic Stiffness in Granular Materials. <i>Journal of Engineering Mechanics - ASCE</i> , 2022, 148, .	1.6	1
6	Determining a representative element volume for DEM simulations of samples with non-circular particles. <i>Particuology</i> , 2022, 68, 29-43.	2.0	8
7	Coarse-grained molecular models of the surface of hair. <i>Soft Matter</i> , 2022, 18, 1779-1792.	1.2	7
8	Acoustic Emission Enabled Particle Size Estimation via Low Stress-Variied Axial Interface Shearing. <i>IEEE Transactions on Instrumentation and Measurement</i> , 2022, 71, 1-10.	2.4	1
9	Insights into Infusion-Based Targeted Drug Delivery in the Brain: Perspectives, Challenges and Opportunities. <i>International Journal of Molecular Sciences</i> , 2022, 23, 3139.	1.8	14
10	A semi-empirical re-evaluation of the influence of state on elastic stiffness in granular materials. <i>Granular Matter</i> , 2022, 24, 1.	1.1	8
11	Effect of Particle Size and Surface Charge on Nanoparticles Diffusion in the Brain White Matter. <i>Pharmaceutical Research</i> , 2022, 39, 767-781.	1.7	26
12	Morphometric study of the ventricular indexes in healthy ovine BRAIN using MRI. <i>BMC Veterinary Research</i> , 2022, 18, 97.	0.7	0
13	The Intrinsic Fragility of the Liquid-Vapor Interface: A Stress Network Perspective. <i>Langmuir</i> , 2022, 38, 4669-4679.	1.6	3
14	Slip and stress from low shear rate nonequilibrium molecular dynamics: The transient-time correlation function technique. <i>Journal of Chemical Physics</i> , 2022, 156, 184111.	1.2	4
15	Critical appraisal of pore network models to simulate fluid flow through assemblies of spherical particles. <i>Computers and Geotechnics</i> , 2022, 150, 104900.	2.3	5
16	The mechanics and physics of high-speed dislocations: a critical review. <i>International Materials Reviews</i> , 2021, 66, 215-255.	9.4	35
17	Tribological Rehydration and Its Role on Frictional Behavior of PVA/GO Hydrogels for Cartilage Replacement Under Migrating and Stationary Contact Conditions. <i>Tribology Letters</i> , 2021, 69, 1.	1.2	11
18	Integrating Diffusion Tensor Imaging and Neurite Orientation Dispersion and Density Imaging to Improve the Predictive Capabilities of CED Models. <i>Annals of Biomedical Engineering</i> , 2021, 49, 689-702.	1.3	8

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19	Using Ultrasonic Reflection Resonance to Probe Stress Wave Velocity in Assemblies of Spherical Particles. IEEE Sensors Journal, 2021, 21, 22489-22498.	2.4	3
20	Contributions of Molecular Dynamics Simulations to Elastohydrodynamic Lubrication. Tribology Letters, 2021, 69, 1.	1.2	27
21	Scale-Dependent Friction—Coverage Relations and Nonlocal Dissipation in Surfactant Monolayers. Langmuir, 2021, 37, 2406-2418.	1.6	6
22	Influence of Particle Size Distribution on the Proportion of Stress-Transmitting Particles and Implications for Measures of Soil State. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2021, 147, .	1.5	29
23	Triaxial Compression on Semi-solid Alloys. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2021, 52, 2010-2023.	1.1	5
24	A dual nozzle 3D printing system for super soft composite hydrogels. HardwareX, 2021, 9, e00176.	1.1	10
25	Cartilage rehydration: The sliding-induced hydrodynamic triggering mechanism. Acta Biomaterialia, 2021, 125, 90-99.	4.1	10
26	Analysis of the stress distribution in a laminar direct simple shear device and implications for test data interpretation. Granular Matter, 2021, 23, 1.	1.1	4
27	Influence of Fabric on Stress Distribution in Gap-Graded Soil. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2021, 147, .	1.5	28
28	Flexibility-Patterned Liquid-Repelling Surfaces. ACS Applied Materials & Interfaces, 2021, 13, 29092-29100.	4.0	8
29	Biomimetic Water-Repelling Surfaces with Robustly Flexible Structures. ACS Applied Materials & Interfaces, 2021, 13, 31310-31319.	4.0	14
30	Molecular droplets vs bubbles: Effect of curvature on surface tension and Tolman length. Physics of Fluids, 2021, 33, .	1.6	15
31	Interfacial Bonding Controls Friction in Diamond—Rock Contacts. Journal of Physical Chemistry C, 2021, 125, 18395-18408.	1.5	9
32	On the microstructural origin of brain white matter hydraulic permeability. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	13
33	Coarse-grained molecular dynamics simulations of clay compression. Computers and Geotechnics, 2021, 138, 104333.	2.3	20
34	Effect of Temperature on the Deformation Behavior of Copper Nickel Alloys under Sliding. Materials, 2021, 14, 60.	1.3	18
35	On the Origin of Plastic Deformation and Surface Evolution in Nano-Fretting: A Discrete Dislocation Plasticity Analysis. Materials, 2021, 14, 6511.	1.3	6
36	Mechanochemistry of phosphate esters confined between sliding iron surfaces. Communications Chemistry, 2021, 4, .	2.0	21

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37	Self-Compensating Liquid-Repellent Surfaces with Stratified Morphology. ACS Applied Materials & Interfaces, 2020, 12, 4174-4182.	4.0	9
38	CPL library "A minimal framework for coupled particle and continuum simulation. Computer Physics Communications, 2020, 250, 107068.	3.0	11
39	Liquid repellency enhancement through flexible microstructures. Science Advances, 2020, 6, eaba9721.	4.7	35
40	Statistical Analysis and Molecular Dynamics Simulations of the Thermal Conductivity of Lennard-Jones Solids Including Their Pressure and Temperature Dependencies. Physica Status Solidi (B): Basic Research, 2020, 257, 2000344.	0.7	3
41	High Lubricity Meets Load Capacity: Cartilage Mimicking Bilayer Structure by Brushing Up Stiff Hydrogels from Subsurface. Advanced Functional Materials, 2020, 30, 2004062.	7.8	118
42	Ab Initio Study of Polytetrafluoroethylene Defluorination for Tribocharging Applications. ACS Applied Polymer Materials, 2020, 2, 5129-5134.	2.0	5
43	Controlling the number of vortices and torque in Taylor-Couette flow. Journal of Fluid Mechanics, 2020, 901, .	1.4	12
44	What Does a Brain Feel Like?. Journal of Chemical Education, 2020, 97, 4078-4083.	1.1	1
45	Stress Inhomogeneity in Gap-Graded Cohesionless Soils "A Contact Based Perspective. , 2020, , .		0
46	Calculating the State Parameter in Crushable Sands. International Journal of Geomechanics, 2020, 20, 04020095.	1.3	12
47	An adaptive finite element model for steerable needles. Biomechanics and Modeling in Mechanobiology, 2020, 19, 1809-1825.	1.4	27
48	Unraveling and Mapping the Mechanisms for Near-Surface Microstructure Evolution in CuNi Alloys under Sliding. ACS Applied Materials & Interfaces, 2020, 12, 32197-32208.	4.0	32
49	Transient structures in rupturing thin films: Marangoni-induced symmetry-breaking pattern formation in viscous fluids. Science Advances, 2020, 6, eabb0597.	4.7	7
50	Hemiarthroplasties: the choice of prosthetic material causes different levels of damage in the articular cartilage. Journal of Shoulder and Elbow Surgery, 2020, 29, 1019-1029.	1.2	9
51	Substituent Effects on the Thermal Decomposition of Phosphate Esters on Ferrous Surfaces. Journal of Physical Chemistry C, 2020, 124, 9852-9865.	1.5	24
52	Selecting an Appropriate Shear Plate Configuration to Measure Elastic Wave Velocities. Geotechnical Testing Journal, 2020, 43, 1519-1540.	0.5	6
53	The Percolation of Liquid Through a Compliant Seal "An Experimental and Theoretical Study. Journal of Fluids Engineering, Transactions of the ASME, 2019, 141, .	0.8	13
54	Effect of tissue permeability and drug diffusion anisotropy on convection-enhanced delivery. Drug Delivery, 2019, 26, 773-781.	2.5	26

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55	Simulating Surfactant-iron Oxide Interfaces: From Density Functional Theory to Molecular Dynamics. <i>Journal of Physical Chemistry B</i> , 2019, 123, 6870-6881.	1.2	28
56	Numerical modelling of rough particle contacts subject to normal and tangential loading. <i>Granular Matter</i> , 2019, 21, 1.	1.1	18
57	Particle-scale insight into transitional behaviour of gap-graded materials – small-strain stiffness and frequency response. <i>E3S Web of Conferences</i> , 2019, 92, 14006.	0.2	1
58	Influence of stress anisotropy on stress distributions in gap-graded soils. <i>E3S Web of Conferences</i> , 2019, 92, 14007.	0.2	2
59	Linking macro-scale yielding and micro-scale response. <i>E3S Web of Conferences</i> , 2019, 92, 14008.	0.2	2
60	Bioinspired 3D Printed Locomotion Devices Based on Anisotropic Friction. <i>Small</i> , 2019, 15, e1802931.	5.2	21
61	Micromechanical inspection of incremental behaviour of crushable soils. <i>Acta Geotechnica</i> , 2019, 14, 1337-1356.	2.9	21
62	Three-Dimensional Printed Surfaces Inspired by Bi-Gaussian Stratified Plateaus. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 20528-20534.	4.0	8
63	Ability of a pore network model to predict fluid flow and drag in saturated granular materials. <i>Computers and Geotechnics</i> , 2019, 110, 344-366.	2.3	26
64	Bi-Gaussian Stratified Wetting Model on Rough Surfaces. <i>Langmuir</i> , 2019, 35, 5967-5974.	1.6	10
65	A computational fluid dynamics approach to determine white matter permeability. <i>Biomechanics and Modeling in Mechanobiology</i> , 2019, 18, 1111-1122.	1.4	21
66	First-Principles Insights into the Structural and Electronic Properties of Polytetrafluoroethylene in Its High-Pressure Phase (Form III). <i>Journal of Physical Chemistry C</i> , 2019, 123, 6250-6255.	1.5	10
67	A Combined Experimental and Theoretical Study on the Mechanisms Behind Tribocharging Phenomenon and the Influence of Triboemission. <i>Tribology Online</i> , 2019, 14, 367-374.	0.2	5
68	Robust Control for a Full-Car Prototype of Series Active Variable Geometry Suspension. , 2019, , .		3
69	Anisotropic Friction: Bioinspired 3D Printed Locomotion Devices Based on Anisotropic Friction (Small) Tj ETQq1 1 0,784314 rgBT /Overl	5.2	3
70	Influence of the coefficient of uniformity on the size and frequency of constrictions in sand filters. <i>Geotechnique</i> , 2019, 69, 274-282.	2.2	14
71	Quarter-Car Experimental Study for Series Active Variable Geometry Suspension. <i>IEEE Transactions on Control Systems Technology</i> , 2019, 27, 743-759.	3.2	25
72	Detection of proteoglycan loss from articular cartilage using Brillouin microscopy, with applications to osteoarthritis. <i>Biomedical Optics Express</i> , 2019, 10, 2457.	1.5	17

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73	Tribological evaluation of biomedical polycarbonate urethanes against articular cartilage. Journal of the Mechanical Behavior of Biomedical Materials, 2018, 82, 394-402.	1.5	28
74	Experimental and DEM assessment of the stress-dependency of surface roughness effects on shear modulus. Soils and Foundations, 2018, 58, 602-614.	1.3	55
75	3D Measurements of Lubricant and Surface Temperatures Within an Elastohydrodynamic Contact. Tribology Letters, 2018, 66, 7.	1.2	20
76	Tribological properties of PVA/PVP blend hydrogels against articular cartilage. Journal of the Mechanical Behavior of Biomedical Materials, 2018, 78, 36-45.	1.5	65
77	Models and tissue mimics for brain shift simulations. Biomechanics and Modeling in Mechanobiology, 2018, 17, 249-261.	1.4	25
78	Discrete Simulation of Cone Penetration in Granular Materials. Computational Methods in Applied Sciences (Springer), 2018, , 95-111.	0.1	2
79	Coupled particle-fluid simulations of the initiation of suffusion. Soils and Foundations, 2018, 58, 972-985.	1.3	46
80	Discrete element method analysis of small-strain stiffness under anisotropic stress states. Geotechnique Letters, 2018, 8, 183-189.	0.6	15
81	Adsorption of Surfactants on $\text{Fe}_2\text{O}_3(0001)$: A Density Functional Theory Study. Journal of Physical Chemistry C, 2018, 122, 20817-20826.	1.5	39
82	Parallel Active Link Suspension: A Quarter-Car Experimental Study. IEEE/ASME Transactions on Mechatronics, 2018, 23, 2066-2077.	3.7	17
83	Control Design for a Quarter Car Test Rig with Parallel Active Link Suspension. , 2018, , .		4
84	Capillary waves with surface viscosity. Journal of Fluid Mechanics, 2018, 847, 644-663.	1.4	12
85	Partition of the contact force network obtained in discrete element simulations of element tests. Computational Particle Mechanics, 2017, 4, 145-152.	1.5	14
86	Analytical study of the accuracy of discrete element simulations. International Journal for Numerical Methods in Engineering, 2017, 109, 29-51.	1.5	18
87	On the characterization of the heterogeneous mechanical response of human brain tissue. Biomechanics and Modeling in Mechanobiology, 2017, 16, 907-920.	1.4	92
88	Polyelectrolyte pK_a from experiment and molecular dynamics simulation. RSC Advances, 2017, 7, 20007-20014.	1.7	18
89	Implementation of rotational resistance models: A critical appraisal. Particuology, 2017, 34, 14-23.	2.0	31
90	Meeting the Contact-Mechanics Challenge. Tribology Letters, 2017, 65, 1.	1.2	232

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91	Significant and stable drag reduction with air rings confined by alternated superhydrophobic and hydrophilic strips. <i>Science Advances</i> , 2017, 3, e1603288.	4.7	127
92	Non- ϵ Equilibrium Phase Behavior of Confined Molecular Films at Low Shear Rates. <i>Physica Status Solidi (B): Basic Research</i> , 2017, 254, 1600862.	0.7	1
93	Sliding wear analysis of cobalt based alloys in nuclear reactor conditions. <i>Wear</i> , 2017, 376-377, 1489-1501.	1.5	8
94	Sub-particle-scale investigation of seepage in sands. <i>Soils and Foundations</i> , 2017, 57, 439-452.	1.3	17
95	Influence of heterogeneity on rock strength and stiffness using discrete element method and parallel bond model. <i>Journal of Rock Mechanics and Geotechnical Engineering</i> , 2017, 9, 575-584.	3.7	34
96	Marangoni effect on small-amplitude capillary waves in viscous fluids. <i>Physical Review E</i> , 2017, 96, 053110.	0.8	3
97	Soft Matter Lubrication: Does Solid Viscoelasticity Matter?. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 42287-42295.	4.0	50
98	Influence of packing density and stress on the dynamic response of granular materials. <i>Granular Matter</i> , 2017, 19, 1.	1.1	19
99	Comparing the effects of interparticle friction coefficient and intermediate stress ratio on critical-state DEM simulations using Delaunay triangulations. <i>EPJ Web of Conferences</i> , 2017, 140, 12003.	0.1	0
100	Cryogenic 3D Printing of Super Soft Hydrogels. <i>Scientific Reports</i> , 2017, 7, 16293.	1.6	98
101	Before the bubble ruptures. <i>Physical Review Fluids</i> , 2017, 2, .	1.0	1
102	A Comparison of Classical Force-Fields for Molecular Dynamics Simulations of Lubricants. <i>Materials</i> , 2016, 9, 651.	1.3	96
103	A numerical study exploring the effect of particle properties on the fluidization of adhesive particles. <i>AIChE Journal</i> , 2016, 62, 1467-1477.	1.8	22
104	Micromechanics of seismic wave propagation in granular materials. <i>Granular Matter</i> , 2016, 18, 1.	1.1	38
105	A review of the use of the asymptotic framework for quantification of fretting fatigue. <i>Journal of Strain Analysis for Engineering Design</i> , 2016, 51, 240-246.	1.0	12
106	Nonequilibrium Molecular Dynamics Simulations of Organic Friction Modifiers Adsorbed on Iron Oxide Surfaces. <i>Langmuir</i> , 2016, 32, 4450-4463.	1.6	105
107	Nonequilibrium Molecular Dynamics Investigation of the Reduction in Friction and Wear by Carbon Nanoparticles Between Iron Surfaces. <i>Tribology Letters</i> , 2016, 63, 1.	1.2	46
108	The influence of fines content and size-ratio on the micro-scale properties of dense bimodal materials. <i>Granular Matter</i> , 2016, 18, 1.	1.1	60

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109	Theory of reciprocating contact for viscoelastic solids. <i>Physical Review E</i> , 2016, 93, 043003.	0.8	30
110	Soft Tissue Phantoms for Realistic Needle Insertion: A Comparative Study. <i>Annals of Biomedical Engineering</i> , 2016, 44, 2442-2452.	1.3	58
111	Geometric and Hydraulic Void Constrictions in Granular Media. <i>Journal of Geotechnical and Geoenvironmental Engineering - ASCE</i> , 2016, 142, .	1.5	10
112	Measurement of constriction size distributions using three grain-scale methods. , 2016, , .		4
113	Interpreting filtration-based suffusion criteria using micro-computed tomography and laboratory filter tests. , 2016, , .		0
114	Particle-scale mechanics of sand crushing in compression and shearing using DEM. <i>Soils and Foundations</i> , 2015, 55, 1100-1112.	1.3	90
115	The Role of Homogeneous Nucleation in Planar Dynamic Discrete Dislocation Plasticity. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2015, 82, .	1.1	16
116	Elastodynamic image forces on dislocations. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2015, 471, 20150433.	1.0	16
117	Nanoporous Substrate-Infused Hydrogels: a Bioinspired Regenerable Surface for High Load Bearing and Tunable Friction. <i>Advanced Functional Materials</i> , 2015, 25, 7366-7374.	7.8	87
118	Friction Induced Vibration in Windscreen Wiper Contacts. <i>Journal of Vibration and Acoustics, Transactions of the ASME</i> , 2015, 137, .	1.0	13
119	Static Liquefaction and Instability in Granular Media Subjected to Monotonic Loading—A Micromechanical Investigation. <i>Springer Series in Geomechanics and Geoengineering</i> , 2015, , 207-212.	0.0	1
120	Contact based void partitioning to assess filtration properties in DEM simulations. <i>Computers and Geotechnics</i> , 2015, 64, 120-131.	2.3	25
121	Transient effects in lubricated textured bearings. <i>Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology</i> , 2015, 229, 523-537.	1.0	19
122	A new method to identify void constrictions in micro-CT images of sand. <i>Computers and Geotechnics</i> , 2015, 69, 279-290.	2.3	63
123	Analysis of bender element test interpretation using the discrete element method. <i>Granular Matter</i> , 2015, 17, 197-216.	1.1	36
124	Closure to "Fabric and Effective Stress Distribution in Internally Unstable Soils" by T. Shire, C. O'Sullivan, K. J. Hanley, and R. J. Fannin. <i>Journal of Geotechnical and Geoenvironmental Engineering - ASCE</i> , 2015, 141, 07015033.	1.5	2
125	Use of elastic stability analysis to explain the stress-dependent nature of soil strength. <i>Royal Society Open Science</i> , 2015, 2, 150038.	1.1	4
126	A General Finite Volume Method for the Solution of the Reynolds Lubrication Equation with a Mass-Conserving Cavitation Model. <i>Tribology Letters</i> , 2015, 60, 1.	1.2	35

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127	Active Variable Geometry Suspension robust control for improved vehicle ride comfort and road holding. , 2015, , .		6
128	Series Active Variable Geometry Suspension for Road Vehicles. IEEE/ASME Transactions on Mechatronics, 2015, 20, 361-372.	3.7	41
129	DEM analysis of the influence of the intermediate stress ratio on the critical-state behaviour of granular materials. Granular Matter, 2014, 16, 641-655.	1.1	79
130	Fabric and Effective Stress Distribution in Internally Unstable Soils. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2014, 140, .	1.5	145
131	Temporal variation of contact networks in granular materials. Granular Matter, 2014, 16, 41-54.	1.1	22
132	Exploring the influence of interparticle friction on critical state behaviour using DEM. International Journal for Numerical and Analytical Methods in Geomechanics, 2014, 38, 1276-1297.	1.7	159
133	Synchrotron Radiography Studies of Shear-Induced Dilation in Semisolid Al Alloys and Steels. Jom, 2014, 66, 1415-1424.	0.9	13
134	Sand production simulation coupling DEM with CFD. European Journal of Environmental and Civil Engineering, 2014, 18, 983-1008.	1.0	49
135	Multi-scale analysis of cone penetration test (CPT) in a virtual calibration chamber. Canadian Geotechnical Journal, 2014, 51, 51-66.	1.4	83
136	Effect of sample size on the response of DEM samples with a realistic grading. Particuology, 2014, 15, 107-115.	2.0	110
137	Up-Cycling Waste Glass to Minimal Water Adsorption/Absorption Lightweight Aggregate by Rapid Low Temperature Sintering: Optimization by Dual Process-Mixture Response Surface Methodology. Environmental Science & Technology, 2014, 48, 7527-7535.	4.6	29
138	Experimental investigation into the primary fabric of stress transmitting particles. , 2014, , 1019-1024.		2
139	Advancing geomechanics using DEM. , 2014, , 21-32.		12
140	Experimental Investigation of Viscoelastic Rolling Contacts: A Comparison with Theory. Tribology Letters, 2013, 51, 105-113.	1.2	38
141	Micromechanical assessment of an internal stability criterion. Acta Geotechnica, 2013, 8, 81-90.	2.9	84
142	Analysis of an Image-Based Method to Quantify the Size and Shape of Sand Particles. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2013, 139, 1290-1307.	1.5	256
143	Quantifying the evolution of soil fabric during shearing using directional parameters. Geotechnique, 2013, 63, 487-499.	2.2	130
144	Discrete element method simulations of analogue reservoir sandstones. International Journal of Rock Mechanics and Minings Sciences, 2013, 63, 93-103.	2.6	43

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145	Use of DEM and elastic stability analysis to explain the influence of the intermediate principal stress on shear strength. <i>Geotechnique</i> , 2013, 63, 1298-1309.	2.2	38
146	Traction and nonequilibrium phase behavior of confined sheared liquids at high pressure. <i>Physical Review E</i> , 2013, 88, 052406.	0.8	37
147	In situ study of granular micromechanics in semi-solid carbon steels. <i>Acta Materialia</i> , 2013, 61, 4169-4179.	3.8	34
148	A micromechanics-based analytical method for wave propagation through a granular material. <i>Soil Dynamics and Earthquake Engineering</i> , 2013, 45, 25-34.	1.9	16
149	Use of a two-dimensional discrete-element line-sink model to gain insight into tunnelling-induced deformations. <i>Geotechnique</i> , 2013, 63, 791-795.	2.2	21
150	Quantifying the evolution of soil fabric during shearing using scalar parameters. <i>Geotechnique</i> , 2013, 63, 818-829.	2.2	79
151	Contact mechanics of frictional lap joints. <i>Journal of Strain Analysis for Engineering Design</i> , 2013, 48, 321-329.	1.0	3
152	Quantifying stress-induced anisotropy using inter-void constrictions. <i>Geotechnique</i> , 2013, 63, 85-91.	2.2	21
153	A dynamic discrete dislocation plasticity method for the simulation of plastic relaxation under shock loading. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2013, 469, 20130141.	1.0	48
154	Optimal Placement of Piezoelectric Plates to Control Multimode Vibrations of a Beam. <i>Advances in Acoustics and Vibration</i> , 2013, 2013, 1-8.	0.5	10
155	Challenges of simulating undrained tests using the constant volume method in DEM. <i>AIP Conference Proceedings</i> , 2013, , .	0.3	13
156	Sensitivity to damping in sand production DEM-CFD coupled simulations. <i>AIP Conference Proceedings</i> , 2013, , .	0.3	10
157	The mechanics of rigid irregular particles subject to uniaxial compression. <i>Geotechnique</i> , 2012, 62, 681-692.	2.2	42
158	Pitch angle reduction for cars under acceleration and braking by active variable geometry suspension. , 2012, , .		7
159	The Influence of Surface Topography on Energy Dissipation and Compliance in Tangentially Loaded Elastic Contacts. <i>Journal of Tribology</i> , 2012, 134, .	1.0	13
160	Two-dimensional discrete element modelling of bender element tests on an idealised granular material. <i>Granular Matter</i> , 2012, 14, 733-747.	1.1	41
161	Non-invasive characterization of particle morphology of natural sands. <i>Soils and Foundations</i> , 2012, 52, 712-722.	1.3	194
162	Characterization of artificial spherical particles for DEM validation studies. <i>Particuology</i> , 2012, 10, 209-220.	2.0	46

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163	Discrete element modelling of the quasi-static uniaxial compression of individual infant formula agglomerates. <i>Particuology</i> , 2012, 10, 523-531.	2.0	15
164	Observation of Cracks in Frozen Soil using Synchrotron Tomography. <i>Permafrost and Periglacial Processes</i> , 2012, 23, 170-176.	1.5	31
165	The influence of inter-particle friction and the intermediate stress ratio on soil response under generalised stress conditions. <i>Granular Matter</i> , 2012, 14, 505-521.	1.1	135
166	Exploring dendrite coherency with the discrete element method. <i>Acta Materialia</i> , 2012, 60, 1334-1345.	3.8	43
167	Quantifying void fabric using a scan-line approach. <i>Computers and Geotechnics</i> , 2012, 41, 1-12.	2.3	29
168	Lubrication in soft rough contacts: A novel homogenized approach. Part II - Discussion. <i>Soft Matter</i> , 2011, 7, 10407.	1.2	29
169	Lubrication in soft rough contacts: A novel homogenized approach. Part I - Theory. <i>Soft Matter</i> , 2011, 7, 10395.	1.2	61
170	Experimental Evidence of Micro-EHL Lubrication in Rough Soft Contacts. <i>Tribology Letters</i> , 2011, 43, 169-174.	1.2	40
171	Effect of composition on the mechanical response of agglomerates of infant formulae. <i>Journal of Food Engineering</i> , 2011, 107, 71-79.	2.7	28
172	Application of Taguchi methods to DEM calibration of bonded agglomerates. <i>Powder Technology</i> , 2011, 210, 230-240.	2.1	88
173	Particle-Based Discrete Element Modeling: Geomechanics Perspective. <i>International Journal of Geomechanics</i> , 2011, 11, 449-464.	1.3	166
174	Stress-induced anisotropy in sand under cyclic loading. <i>Granular Matter</i> , 2010, 12, 469-476.	1.1	37
175	The influence of particle characteristics on the behaviour of coarse grained soils. <i>Geotechnique</i> , 2010, 60, 413-423.	2.2	328
176	Study on the Deformation of Loose Sand under Cyclic Loading by DEM Simulation. , 2010, , .		0
177	Particle breakage during cyclic triaxial loading of a carbonate sand. <i>Geotechnique</i> , 2009, 59, 477-482.	2.2	105
178	Quantifying the Evolution of Soil Fabric Under Different Stress Paths. , 2009, , .		31
179	Image Segmentation Techniques for Granular Materials. , 2009, , .		7
180	Fabric Evolution in Granular Materials Subject to Drained, Strain Controlled Cyclic Loading. , 2009, , .		4

#	ARTICLE	IF	CITATIONS
181	Applying 2D shape analysis techniques to granular materials with 3D particle geometries. , 2009, , .		20
182	Micromechanics of granular material response during load reversals: Combined DEM and experimental study. Powder Technology, 2009, 193, 289-302.	2.1	88
183	Wavelet analysis of DEM simulations of samples under biaxial compression. Granular Matter, 2008, 10, 389-398.	1.1	2
184	Effective simulation of flexible lateral boundaries in two- and three-dimensional DEM simulations. Particuology, 2008, 6, 483-500.	2.0	96
185	DISCRETE ELEMENT ANALYSIS OF THE RESPONSE OF GRANULAR MATERIALS DURING CYCLIC LOADING. Soils and Foundations, 2008, 48, 511-530.	1.3	78
186	A Micro-Mechanical Study of the Influence of Penetrometer Geometry on Failure Mechanisms in Granular Soils. , 2007, , 1.		4
187	An analysis of the triaxial apparatus using a mixed boundary three-dimensional discrete element model. Geotechnique, 2007, 57, 831-844.	2.2	88
188	Experimental Validation of Particle-Based Discrete Element Methods. , 2006, , 1.		6
189	Selecting a suitable time step for discrete element simulations that use the central difference time integration scheme. Engineering Computations, 2004, 21, 278-303.	0.7	203
190	Examination of the Response of Regularly Packed Specimens of Spherical Particles Using Physical Tests and Discrete Element Simulations. Journal of Engineering Mechanics - ASCE, 2004, 130, 1140-1150.	1.6	42
191	Analysis of a triangulation based approach for specimen generation for discrete element simulations. Archive for History of Exact Sciences, 2003, 5, 135-145.	0.2	74
192	A new approach for calculating strain for particulate media. International Journal for Numerical and Analytical Methods in Geomechanics, 2003, 27, 859-877.	1.7	73
193	Modified Shear Spring Formulation for Discontinuous Deformation Analysis of Particulate Media. Journal of Engineering Mechanics - ASCE, 2003, 129, 830-834.	1.6	14
194	Influence of Particle Shape and Surface Friction Variability on Response of Rod-Shaped Particulate Media. Journal of Engineering Mechanics - ASCE, 2002, 128, 1182-1192.	1.6	57