

# Catherine O'Sullivan

## List of Publications by Year in descending order

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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 characteristics on the behaviour of coarse grained soils. <i>Geotechnique</i> , 2010, 60, 413-423.	2.2	328
2	Analysis of an Image-Based Method to Quantify the Size and Shape of Sand Particles. <i>Journal of Geotechnical and Geoenvironmental Engineering - ASCE</i> , 2013, 139, 1290-1307.	1.5	256
3	Meeting the Contact-Mechanics Challenge. <i>Tribology Letters</i> , 2017, 65, 1.	1.2	232
4	Selecting a suitable time step for discrete element simulations that use the central difference time integration scheme. <i>Engineering Computations</i> , 2004, 21, 278-303.	0.7	203
5	Non-invasive characterization of particle morphology of natural sands. <i>Soils and Foundations</i> , 2012, 52, 712-722.	1.3	194
6	Particle-Based Discrete Element Modeling: Geomechanics Perspective. <i>International Journal of Geomechanics</i> , 2011, 11, 449-464.	1.3	166
7	Exploring the influence of interparticle friction on critical state behaviour using DEM. <i>International Journal for Numerical and Analytical Methods in Geomechanics</i> , 2014, 38, 1276-1297.	1.7	159
8	Fabric and Effective Stress Distribution in Internally Unstable Soils. <i>Journal of Geotechnical and Geoenvironmental Engineering - ASCE</i> , 2014, 140, .	1.5	145
9	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
10	Quantifying the evolution of soil fabric during shearing using directional parameters. <i>Geotechnique</i> , 2013, 63, 487-499.	2.2	130
11	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
12	High Lubricity Meets Load Capacity: Cartilage Mimicking Bilayer Structure by Brushing Up Stiff Hydrogels from Subsurface. <i>Advanced Functional Materials</i> , 2020, 30, 2004062.	7.8	118
13	Effect of sample size on the response of DEM samples with a realistic grading. <i>Particuology</i> , 2014, 15, 107-115.	2.0	110
14	Particle breakage during cyclic triaxial loading of a carbonate sand. <i>Geotechnique</i> , 2009, 59, 477-482.	2.2	105
15	Nonequilibrium Molecular Dynamics Simulations of Organic Friction Modifiers Adsorbed on Iron Oxide Surfaces. <i>Langmuir</i> , 2016, 32, 4450-4463.	1.6	105
16	Cryogenic 3D Printing of Super Soft Hydrogels. <i>Scientific Reports</i> , 2017, 7, 16293.	1.6	98
17	Effective simulation of flexible lateral boundaries in two- and three-dimensional DEM simulations. <i>Particuology</i> , 2008, 6, 483-500.	2.0	96
18	A Comparison of Classical Force-Fields for Molecular Dynamics Simulations of Lubricants. <i>Materials</i> , 2016, 9, 651.	1.3	96

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19	On the characterization of the heterogeneous mechanical response of human brain tissue. <i>Biomechanics and Modeling in Mechanobiology</i> , 2017, 16, 907-920.	1.4	92
20	Particle-scale mechanics of sand crushing in compression and shearing using DEM. <i>Soils and Foundations</i> , 2015, 55, 1100-1112.	1.3	90
21	An analysis of the triaxial apparatus using a mixed boundary three-dimensional discrete element model. <i>Geotechnique</i> , 2007, 57, 831-844.	2.2	88
22	Micromechanics of granular material response during load reversals: Combined DEM and experimental study. <i>Powder Technology</i> , 2009, 193, 289-302.	2.1	88
23	Application of Taguchi methods to DEM calibration of bonded agglomerates. <i>Powder Technology</i> , 2011, 210, 230-240.	2.1	88
24	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
25	Micromechanical assessment of an internal stability criterion. <i>Acta Geotechnica</i> , 2013, 8, 81-90.	2.9	84
26	Multi-scale analysis of cone penetration test (CPT) in a virtual calibration chamber. <i>Canadian Geotechnical Journal</i> , 2014, 51, 51-66.	1.4	83
27	Quantifying the evolution of soil fabric during shearing using scalar parameters. <i>Geotechnique</i> , 2013, 63, 818-829.	2.2	79
28	DEM analysis of the influence of the intermediate stress ratio on the critical-state behaviour of granular materials. <i>Granular Matter</i> , 2014, 16, 641-655.	1.1	79
29	DISCRETE ELEMENT ANALYSIS OF THE RESPONSE OF GRANULAR MATERIALS DURING CYCLIC LOADING. <i>Soils and Foundations</i> , 2008, 48, 511-530.	1.3	78
30	Analysis of a triangulation based approach for specimen generation for discrete element simulations. <i>Archive for History of Exact Sciences</i> , 2003, 5, 135-145.	0.2	74
31	A new approach for calculating strain for particulate media. <i>International Journal for Numerical and Analytical Methods in Geomechanics</i> , 2003, 27, 859-877.	1.7	73
32	Tribological properties of PVA/PVP blend hydrogels against articular cartilage. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2018, 78, 36-45.	1.5	65
33	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
34	Lubrication in soft rough contacts: A novel homogenized approach. Part I - Theory. <i>Soft Matter</i> , 2011, 7, 10395.	1.2	61
35	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
36	Soft Tissue Phantoms for Realistic Needle Insertion: A Comparative Study. <i>Annals of Biomedical Engineering</i> , 2016, 44, 2442-2452.	1.3	58

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37	Influence of Particle Shape and Surface Friction Variability on Response of Rod-Shaped Particulate Media. <i>Journal of Engineering Mechanics - ASCE</i> , 2002, 128, 1182-1192.	1.6	57
38	Experimental and DEM assessment of the stress-dependency of surface roughness effects on shear modulus. <i>Soils and Foundations</i> , 2018, 58, 602-614.	1.3	55
39	Soft Matter Lubrication: Does Solid Viscoelasticity Matter?. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 42287-42295.	4.0	50
40	Sand production simulation coupling DEM with CFD. <i>European Journal of Environmental and Civil Engineering</i> , 2014, 18, 983-1008.	1.0	49
41	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
42	Characterization of artificial spherical particles for DEM validation studies. <i>Particuology</i> , 2012, 10, 209-220.	2.0	46
43	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
44	Coupled particle-fluid simulations of the initiation of suffusion. <i>Soils and Foundations</i> , 2018, 58, 972-985.	1.3	46
45	Exploring dendrite coherency with the discrete element method. <i>Acta Materialia</i> , 2012, 60, 1334-1345.	3.8	43
46	Discrete element method simulations of analogue reservoir sandstones. <i>International Journal of Rock Mechanics and Minings Sciences</i> , 2013, 63, 93-103.	2.6	43
47	Examination of the Response of Regularly Packed Specimens of Spherical Particles Using Physical Tests and Discrete Element Simulations. <i>Journal of Engineering Mechanics - ASCE</i> , 2004, 130, 1140-1150.	1.6	42
48	The mechanics of rigid irregular particles subject to uniaxial compression. <i>Geotechnique</i> , 2012, 62, 681-692.	2.2	42
49	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
50	Series Active Variable Geometry Suspension for Road Vehicles. <i>IEEE/ASME Transactions on Mechatronics</i> , 2015, 20, 361-372.	3.7	41
51	Experimental Evidence of Micro-EHL Lubrication in Rough Soft Contacts. <i>Tribology Letters</i> , 2011, 43, 169-174.	1.2	40
52	Adsorption of Surfactants on $\hat{1}\pm\text{-Fe}_{2}\text{O}_{3}$ (0001): A Density Functional Theory Study. <i>Journal of Physical Chemistry C</i> , 2018, 122, 20817-20826.	1.5	39
53	Experimental Investigation of Viscoelastic Rolling Contacts: A Comparison with Theory. <i>Tribology Letters</i> , 2013, 51, 105-113.	1.2	38
54	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

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55	Micromechanics of seismic wave propagation in granular materials. Granular Matter, 2016, 18, 1.	1.1	38
56	Stress-induced anisotropy in sand under cyclic loading. Granular Matter, 2010, 12, 469-476.	1.1	37
57	Traction and nonequilibrium phase behavior of confined sheared liquids at high pressure. Physical Review E, 2013, 88, 052406.	0.8	37
58	Analysis of bender element test interpretation using the discrete element method. Granular Matter, 2015, 17, 197-216.	1.1	36
59	A General Finite Volume Method for the Solution of the Reynolds Lubrication Equation with a Mass-Conserving Cavitation Model. Tribology Letters, 2015, 60, 1.	1.2	35
60	Liquid repellency enhancement through flexible microstructures. Science Advances, 2020, 6, eaba9721.	4.7	35
61	The mechanics and physics of high-speed dislocations: a critical review. International Materials Reviews, 2021, 66, 215-255.	9.4	35
62	In situ study of granular micromechanics in semi-solid carbon steels. Acta Materialia, 2013, 61, 4169-4179.	3.8	34
63	Influence of heterogeneity on rock strength and stiffness using discrete element method and parallel bond model. Journal of Rock Mechanics and Geotechnical Engineering, 2017, 9, 575-584.	3.7	34
64	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
65	Quantifying the Evolution of Soil Fabric Under Different Stress Paths. , 2009, , .		31
66	<i>In situ</i> Observation of Cracks in Frozen Soil using Synchrotron Tomography. Permafrost and Periglacial Processes, 2012, 23, 170-176.	1.5	31
67	Implementation of rotational resistance models: A critical appraisal. Particuology, 2017, 34, 14-23.	2.0	31
68	Theory of reciprocating contact for viscoelastic solids. Physical Review E, 2016, 93, 043003.	0.8	30
69	Lubrication in soft rough contacts: A novel homogenized approach. Part II - Discussion. Soft Matter, 2011, 7, 10407.	1.2	29
70	Quantifying void fabric using a scan-line approach. Computers and Geotechnics, 2012, 41, 1-12.	2.3	29
71	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
72	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

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73	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
74	Tribological evaluation of biomedical polycarbonate urethanes against articular cartilage. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2018, 82, 394-402.	1.5	28
75	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
76	Influence of Fabric on Stress Distribution in Gap-Graded Soil. <i>Journal of Geotechnical and Geoenvironmental Engineering - ASCE</i> , 2021, 147, .	1.5	28
77	An adaptive finite element model for steerable needles. <i>Biomechanics and Modeling in Mechanobiology</i> , 2020, 19, 1809-1825.	1.4	27
78	Contributions of Molecular Dynamics Simulations to Elastohydrodynamic Lubrication. <i>Tribology Letters</i> , 2021, 69, 1.	1.2	27
79	Effect of tissue permeability and drug diffusion anisotropy on convection-enhanced delivery. <i>Drug Delivery</i> , 2019, 26, 773-781.	2.5	26
80	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
81	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
82	Contact based void partitioning to assess filtration properties in DEM simulations. <i>Computers and Geotechnics</i> , 2015, 64, 120-131.	2.3	25
83	Models and tissue mimics for brain shift simulations. <i>Biomechanics and Modeling in Mechanobiology</i> , 2018, 17, 249-261.	1.4	25
84	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
85	Substituent Effects on the Thermal Decomposition of Phosphate Esters on Ferrous Surfaces. <i>Journal of Physical Chemistry C</i> , 2020, 124, 9852-9865.	1.5	24
86	Temporal variation of contact networks in granular materials. <i>Granular Matter</i> , 2014, 16, 41-54.	1.1	22
87	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
88	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
89	Quantifying stress-induced anisotropy using inter-void constrictions. <i>Geotechnique</i> , 2013, 63, 85-91.	2.2	21
90	Bioinspired 3D Printed Locomotion Devices Based on Anisotropic Friction. <i>Small</i> , 2019, 15, e1802931.	5.2	21

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91	Micromechanical inspection of incremental behaviour of crushable soils. <i>Acta Geotechnica</i> , 2019, 14, 1337-1356.	2.9	21
92	A computational fluid dynamics approach to determine white matter permeability. <i>Biomechanics and Modeling in Mechanobiology</i> , 2019, 18, 1111-1122.	1.4	21
93	Mechanochemistry of phosphate esters confined between sliding iron surfaces. <i>Communications Chemistry</i> , 2021, 4, .	2.0	21
94	Applying 2D shape analysis techniques to granular materials with 3D particle geometries. , 2009, , .		20
95	3D Measurements of Lubricant and Surface Temperatures Within an Elastohydrodynamic Contact. <i>Tribology Letters</i> , 2018, 66, 7.	1.2	20
96	Coarse-grained molecular dynamics simulations of clay compression. <i>Computers and Geotechnics</i> , 2021, 138, 104333.	2.3	20
97	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
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	Analytical study of the accuracy of discrete element simulations. <i>International Journal for Numerical Methods in Engineering</i> , 2017, 109, 29-51.	1.5	18
100	Polyelectrolyte pK <sub>a</sub> from experiment and molecular dynamics simulation. <i>RSC Advances</i> , 2017, 7, 20007-20014.	1.7	18
101	Numerical modelling of rough particle contacts subject to normal and tangential loading. <i>Granular Matter</i> , 2019, 21, 1.	1.1	18
102	Effect of Temperature on the Deformation Behavior of Copper Nickel Alloys under Sliding. <i>Materials</i> , 2021, 14, 60.	1.3	18
103	Sub-particle-scale investigation of seepage in sands. <i>Soils and Foundations</i> , 2017, 57, 439-452.	1.3	17
104	Parallel Active Link Suspension: A Quarter-Car Experimental Study. <i>IEEE/ASME Transactions on Mechatronics</i> , 2018, 23, 2066-2077.	3.7	17
105	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
106	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
107	The Role of Homogeneous Nucleation in Planar Dynamic Discrete Dislocation Plasticity. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2015, 82, .	1.1	16
108	Elastodynamic image forces on dislocations. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2015, 471, 20150433.	1.0	16

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109	Discrete element modelling of the quasi-static uniaxial compression of individual infant formula agglomerates. <i>Particuology</i> , 2012, 10, 523-531.	2.0	15
110	Discrete element method analysis of small-strain stiffness under anisotropic stress states. <i>Geotechnique Letters</i> , 2018, 8, 183-189.	0.6	15
111	Using geophysical data to quantify stress transmission in gap-graded granular materials. <i>Geotechnique</i> , 2022, 72, 565-582.	2.2	15
112	Molecular droplets vs bubbles: Effect of curvature on surface tension and Tolman length. <i>Physics of Fluids</i> , 2021, 33, .	1.6	15
113	Modified Shear Spring Formulation for Discontinuous Deformation Analysis of Particulate Media. <i>Journal of Engineering Mechanics - ASCE</i> , 2003, 129, 830-834.	1.6	14
114	Partition of the contact force network obtained in discrete element simulations of element tests. <i>Computational Particle Mechanics</i> , 2017, 4, 145-152.	1.5	14
115	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
116	Biomimetic Water-Repelling Surfaces with Robustly Flexible Structures. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 31310-31319.	4.0	14
117	The influence of particle size distribution on the stress distribution in granular materials. <i>Geotechnique</i> , 2023, 73, 250-264.	2.2	14
118	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
119	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
120	Challenges of simulating undrained tests using the constant volume method in DEM. <i>AIP Conference Proceedings</i> , 2013, , .	0.3	13
121	Synchrotron Radiography Studies of Shear-Induced Dilation in Semisolid Al Alloys and Steels. <i>Jom</i> , 2014, 66, 1415-1424.	0.9	13
122	Friction Induced Vibration in Windscreen Wiper Contacts. <i>Journal of Vibration and Acoustics, Transactions of the ASME</i> , 2015, 137, .	1.0	13
123	The Percolation of Liquid Through a Compliant Seal—An Experimental and Theoretical Study. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , 2019, 141, .	0.8	13
124	On the microstructural origin of brain white matter hydraulic permeability. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	3.3	13
125	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
126	Capillary waves with surface viscosity. <i>Journal of Fluid Mechanics</i> , 2018, 847, 644-663.	1.4	12



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127	Controlling the number of vortices and torque in Taylor-Couette flow. <i>Journal of Fluid Mechanics</i> , 2020, 901, .	1.4	12
128	Calculating the State Parameter in Crushable Sands. <i>International Journal of Geomechanics</i> , 2020, 20, 04020095.	1.3	12
129	Advancing geomechanics using DEM. , 2014, , 21-32.		12
130	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
131	CPL library – A minimal framework for coupled particle and continuum simulation. <i>Computer Physics Communications</i> , 2020, 250, 107068.	3.0	11
132	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
133	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
134	Sensitivity to damping in sand production DEM-CFD coupled simulations. <i>AIP Conference Proceedings</i> , 2013, , .	0.3	10
135	Geometric and Hydraulic Void Constrictions in Granular Media. <i>Journal of Geotechnical and Geoenvironmental Engineering - ASCE</i> , 2016, 142, .	1.5	10
136	Bi-Gaussian Stratified Wetting Model on Rough Surfaces. <i>Langmuir</i> , 2019, 35, 5967-5974.	1.6	10
137	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
138	A dual nozzle 3D printing system for super soft composite hydrogels. <i>HardwareX</i> , 2021, 9, e00176.	1.1	10
139	Cartilage rehydration: The sliding-induced hydrodynamic triggering mechanism. <i>Acta Biomaterialia</i> , 2021, 125, 90-99.	4.1	10
140	Self-Compensating Liquid-Repellent Surfaces with Stratified Morphology. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 4174-4182.	4.0	9
141	Hemiarthroplasties: the choice of prosthetic material causes different levels of damage in the articular cartilage. <i>Journal of Shoulder and Elbow Surgery</i> , 2020, 29, 1019-1029.	1.2	9
142	Interfacial Bonding Controls Friction in Diamond-Rock Contacts. <i>Journal of Physical Chemistry C</i> , 2021, 125, 18395-18408.	1.5	9
143	Sliding wear analysis of cobalt based alloys in nuclear reactor conditions. <i>Wear</i> , 2017, 376-377, 1489-1501.	1.5	8
144	Three-Dimensional Printed Surfaces Inspired by Bi-Gaussian Stratified Plateaus. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 20528-20534.	4.0	8

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145	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
146	Flexibility-Patterned Liquid-Repelling Surfaces. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 29092-29100.	4.0	8
147	Determining a representative element volume for DEM simulations of samples with non-circular particles. <i>Particuology</i> , 2022, 68, 29-43.	2.0	8
148	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
149	Image Segmentation Techniques for Granular Materials. , 2009, , .		7
150	Pitch angle reduction for cars under acceleration and braking by active variable geometry suspension. , 2012, , .		7
151	Transient structures in rupturing thin films: Marangoni-induced symmetry-breaking pattern formation in viscous fluids. <i>Science Advances</i> , 2020, 6, eabb0597.	4.7	7
152	Coarse-grained molecular models of the surface of hair. <i>Soft Matter</i> , 2022, 18, 1779-1792.	1.2	7
153	Experimental Validation of Particle-Based Discrete Element Methods. , 2006, , 1.		6
154	Active Variable Geometry Suspension robust control for improved vehicle ride comfort and road holding. , 2015, , .		6
155	Scale-Dependent Frictionâ€“Coverage Relations and Nonlocal Dissipation in Surfactant Monolayers. <i>Langmuir</i> , 2021, 37, 2406-2418.	1.6	6
156	Selecting an Appropriate Shear Plate Configuration to Measure Elastic Wave Velocities. <i>Geotechnical Testing Journal</i> , 2020, 43, 1519-1540.	0.5	6
157	On the Origin of Plastic Deformation and Surface Evolution in Nano-Fretting: A Discrete Dislocation Plasticity Analysis. <i>Materials</i> , 2021, 14, 6511.	1.3	6
158	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
159	Ab Initio Study of Polytetrafluoroethylene Defluorination for Tribocharging Applications. <i>ACS Applied Polymer Materials</i> , 2020, 2, 5129-5134.	2.0	5
160	Triaxial Compression on Semi-solid Alloys. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2021, 52, 2010-2023.	1.1	5
161	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
162	A Micro-Mechanical Study of the Influence of Penetrometer Geometry on Failure Mechanisms in Granular Soils. , 2007, , 1.		4

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163	Fabric Evolution in Granular Materials Subject to Drained, Strain Controlled Cyclic Loading. , 2009, , .		4
164	Use of elastic stability analysis to explain the stress-dependent nature of soil strength. Royal Society Open Science, 2015, 2, 150038.	1.1	4
165	Control Design for a Quarter Car Test Rig with Parallel Active Link Suspension. , 2018, , .		4
166	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
167	Measurement of constriction size distributions using three grain-scale methods. , 2016, , .		4
168	Slip and stress from low shear rate nonequilibrium molecular dynamics: The transient-time correlation function technique. Journal of Chemical Physics, 2022, 156, 184111.	1.2	4
169	Contact mechanics of frictional lap joints. Journal of Strain Analysis for Engineering Design, 2013, 48, 321-329.	1.0	3
170	Marangoni effect on small-amplitude capillary waves in viscous fluids. Physical Review E, 2017, 96, 053110.	0.8	3
171	Robust Control for a Full-Car Prototype of Series Active Variable Geometry Suspension. , 2019, , .		3
172	Anisotropic Friction: Bioinspired 3D Printed Locomotion Devices Based on Anisotropic Friction (Small) Tj ETQq0 0 0,rgBT /Overlock 10 Tf	5.2	3
173	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
174	Using Ultrasonic Reflection Resonance to Probe Stress Wave Velocity in Assemblies of Spherical Particles. IEEE Sensors Journal, 2021, 21, 22489-22498.	2.4	3
175	The Intrinsic Fragility of the Liquid-Vapor Interface: A Stress Network Perspective. Langmuir, 2022, 38, 4669-4679.	1.6	3
176	Wavelet analysis of DEM simulations of samples under biaxial compression. Granular Matter, 2008, 10, 389-398.	1.1	2
177	Experimental investigation into the primary fabric of stress transmitting particles. , 2014, , 1019-1024.		2
178	Closure to "Fabric and Effective Stress Distribution in Internally Unstable Soils" by T. Shire, C. O'Sullivan, K. J. Hanley, and R. J. Fannin. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2015, 141, 07015033.	1.5	2
179	Discrete Simulation of Cone Penetration in Granular Materials. Computational Methods in Applied Sciences (Springer), 2018, , 95-111.	0.1	2
180	Influence of stress anisotropy on stress distributions in gap-graded soils. E3S Web of Conferences, 2019, 92, 14007.	0.2	2

#	ARTICLE	IF	CITATIONS
181	Linking macro-scale yielding and micro-scale response. E3S Web of Conferences, 2019, 92, 14008.	0.2	2
182	Comparative analysis of porosity coarse-graining techniques for discrete element simulations of dense particulate systems. Computational Particle Mechanics, 2022, 9, 199-219.	1.5	2
183	Static Liquefaction and Instability in Granular Media Subjected to Monotonic Loading – A Micromechanical Investigation. Springer Series in Geomechanics and Geoenvironmental Engineering, 2015, , 207-212.	0.0	1
184	Non-equilibrium Phase Behavior of Confined Molecular Films at Low Shear Rates. Physica Status Solidi (B): Basic Research, 2017, 254, 1600862.	0.7	1
185	Particle-scale insight into transitional behaviour of gap-graded materials – small-strain stiffness and frequency response. E3S Web of Conferences, 2019, 92, 14006.	0.2	1
186	What Does a Brain Feel Like?. Journal of Chemical Education, 2020, 97, 4078-4083.	1.1	1
187	Before the bubble ruptures. Physical Review Fluids, 2017, 2, .	1.0	1
188	Exploiting DEM to Link Thermal Conduction and Elastic Stiffness in Granular Materials. Journal of Engineering Mechanics - ASCE, 2022, 148, .	1.6	1
189	Acoustic Emission Enabled Particle Size Estimation via Low Stress-Variied Axial Interface Shearing. IEEE Transactions on Instrumentation and Measurement, 2022, 71, 1-10.	2.4	1
190	Study on the Deformation of Loose Sand under Cyclic Loading by DEM Simulation. , 2010, , .		0
191	Comparing the effects of interparticle friction coefficient and intermediate stress ratio on critical-state DEM simulations using Delaunay triangulations. EPJ Web of Conferences, 2017, 140, 12003.	0.1	0
192	Stress Inhomogeneity in Gap-Graded Cohesionless Soils – A Contact Based Perspective. , 2020, , .		0
193	Interpreting filtration-based suffusion criteria using micro-computed tomography and laboratory filter tests. , 2016, , .		0
194	Morphometric study of the ventricular indexes in healthy ovine BRAIN using MRI. BMC Veterinary Research, 2022, 18, 97.	0.7	0