

Catherine O Sullivan

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

189
papers

5,116
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39
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64
g-index

199
ext. papers

6,174
ext. citations

4
avg, IF

6.27
L-index

#	Paper	IF	Citations
189	The influence of particle characteristics on the behaviour of coarse grained soils. <i>Geotechnique</i> , 2010 , 60, 413-423	3.4	263
188	Particulate Discrete Element Modelling		232
187	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	3.4	186
186	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	1.4	166
185	Meeting the Contact-Mechanics Challenge. <i>Tribology Letters</i> , 2017 , 65, 1	2.8	163
184	Non-invasive characterization of particle morphology of natural sands. <i>Soils and Foundations</i> , 2012 , 52, 712-722	2.9	145
183	Particle-Based Discrete Element Modeling: Geomechanics Perspective. <i>International Journal of Geomechanics</i> , 2011 , 11, 449-464	3.1	131
182	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	4	120
181	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	2.6	107
180	Quantifying the evolution of soil fabric during shearing using directional parameters. <i>Geotechnique</i> , 2013 , 63, 487-499	3.4	105
179	Fabric and Effective Stress Distribution in Internally Unstable Soils. <i>Journal of Geotechnical and Geoenvironmental Engineering - ASCE</i> , 2014 , 140, 04014072	3.4	89
178	Significant and stable drag reduction with air rings confined by alternated superhydrophobic and hydrophilic strips. <i>Science Advances</i> , 2017 , 3, e1603288	14.3	85
177	Effect of sample size on the response of DEM samples with a realistic grading. <i>Particuology</i> , 2014 , 15, 107-115	2.8	78
176	Effective simulation of flexible lateral boundaries in two- and three-dimensional DEM simulations. <i>Particuology</i> , 2008 , 6, 483-500	2.8	76
175	Micromechanics of granular material response during load reversals: Combined DEM and experimental study. <i>Powder Technology</i> , 2009 , 193, 289-302	5.2	75
174	Nonequilibrium Molecular Dynamics Simulations of Organic Friction Modifiers Adsorbed on Iron Oxide Surfaces. <i>Langmuir</i> , 2016 , 32, 4450-63	4	72
173	Particle breakage during cyclic triaxial loading of a carbonate sand. <i>Geotechnique</i> , 2009 , 59, 477-482	3.4	71

172	An analysis of the triaxial apparatus using a mixed boundary three-dimensional discrete element model. <i>Geotechnique</i> , 2007 , 57, 831-844	3.4	70
171	Micromechanical assessment of an internal stability criterion. <i>Acta Geotechnica</i> , 2013 , 8, 81-90	4.9	67
170	Application of Taguchi methods to DEM calibration of bonded agglomerates. <i>Powder Technology</i> , 2011 , 210, 230-240	5.2	67
169	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	0.6	66
168	A Comparison of Classical Force-Fields for Molecular Dynamics Simulations of Lubricants. <i>Materials</i> , 2016 , 9,	3.5	65
167	A new approach for calculating strain for particulate media. <i>International Journal for Numerical and Analytical Methods in Geomechanics</i> , 2003 , 27, 859-877	4	64
166	Cryogenic 3D Printing of Super Soft Hydrogels. <i>Scientific Reports</i> , 2017 , 7, 16293	4.9	62
165	Nanoporous Substrate-Infiltrated Hydrogels: a Bioinspired Regenerable Surface for High Load Bearing and Tunable Friction. <i>Advanced Functional Materials</i> , 2015 , 25, 7366-7374	15.6	61
164	Quantifying the evolution of soil fabric during shearing using scalar parameters. <i>Geotechnique</i> , 2013 , 63, 818-829	3.4	61
163	On the characterization of the heterogeneous mechanical response of human brain tissue. <i>Biomechanics and Modeling in Mechanobiology</i> , 2017 , 16, 907-920	3.8	60
162	Multi-scale analysis of cone penetration test (CPT) in a virtual calibration chamber. <i>Canadian Geotechnical Journal</i> , 2014 , 51, 51-66	3.2	60
161	DISCRETE ELEMENT ANALYSIS OF THE RESPONSE OF GRANULAR MATERIALS DURING CYCLIC LOADING. <i>Soils and Foundations</i> , 2008 , 48, 511-530	2.9	60
160	Particle-scale mechanics of sand crushing in compression and shearing using DEM. <i>Soils and Foundations</i> , 2015 , 55, 1100-1112	2.9	59
159	Lubrication in soft rough contacts: A novel homogenized approach. Part I - Theory. <i>Soft Matter</i> , 2011 , 7, 10395	3.6	57
158	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	2.6	56
157	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	2.4	51
156	Tribological properties of PVA/PVP blend hydrogels against articular cartilage. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2018 , 78, 36-45	4.1	46
155	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	2.4	46

154	Soft Tissue Phantoms for Realistic Needle Insertion: A Comparative Study. <i>Annals of Biomedical Engineering</i> , 2016 , 44, 2442-2452	4.7	45
153	A new method to identify void constrictions in micro-CT images of sand. <i>Computers and Geotechnics</i> , 2015 , 69, 279-290	4.4	43
152	Discrete element method simulations of analogue reservoir sandstones. <i>International Journal of Rock Mechanics and Minings Sciences</i> , 2013 , 63, 93-103	6	40
151	Characterization of artificial spherical particles for DEM validation studies. <i>Particuology</i> , 2012 , 10, 209-220	4.0	40
150	Experimental Evidence of Micro-EHL Lubrication in Rough Soft Contacts. <i>Tribology Letters</i> , 2011 , 43, 169-174	3.8	38
149	Soft Matter Lubrication: Does Solid Viscoelasticity Matter?. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 42287-42295	9.5	36
148	The mechanics of rigid irregular particles subject to uniaxial compression. <i>Geotechnique</i> , 2012 , 62, 681-692	3.6	36
147	Experimental and DEM assessment of the stress-dependency of surface roughness effects on shear modulus. <i>Soils and Foundations</i> , 2018 , 58, 602-614	2.9	35
146	Sand production simulation coupling DEM with CFD. <i>European Journal of Environmental and Civil Engineering</i> , 2014 , 18, 983-1008	1.5	35
145	The influence of fines content and size-ratio on the micro-scale properties of dense bimodal materials. <i>Granular Matter</i> , 2016 , 18, 1	2.6	34
144	Traction and nonequilibrium phase behavior of confined sheared liquids at high pressure. <i>Physical Review E</i> , 2013 , 88, 052406	2.4	34
143	Exploring dendrite coherency with the discrete element method. <i>Acta Materialia</i> , 2012 , 60, 1334-1345	8.4	34
142	Nonequilibrium Molecular Dynamics Investigation of the Reduction in Friction and Wear by Carbon Nanoparticles Between Iron Surfaces. <i>Tribology Letters</i> , 2016 , 63, 1	2.8	33
141	Experimental Investigation of Viscoelastic Rolling Contacts: A Comparison with Theory. <i>Tribology Letters</i> , 2013 , 51, 105-113	2.8	32
140	In situ study of granular micromechanics in semi-solid carbon steels. <i>Acta Materialia</i> , 2013 , 61, 4169-4178	8.4	32
139	Two-dimensional discrete element modelling of bender element tests on an idealised granular material. <i>Granular Matter</i> , 2012 , 14, 733-747	2.6	32
138	High Lubricity Meets Load Capacity: Cartilage Mimicking Bilayer Structure by Brushing Up Stiff Hydrogels from Subsurface. <i>Advanced Functional Materials</i> , 2020 , 30, 2004062	15.6	32
137	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	2.4	31

136	Series Active Variable Geometry Suspension for Road Vehicles. <i>IEEE/ASME Transactions on Mechatronics</i> , 2015 , 20, 361-372	5.5	29
135	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	3.4	29
134	Lubrication in soft rough contacts: A novel homogenized approach. Part II - Discussion. <i>Soft Matter</i> , 2011 , 7, 10407	3.6	29
133	Stress-induced anisotropy in sand under cyclic loading. <i>Granular Matter</i> , 2010 , 12, 469-476	2.6	29
132	Analysis of bender element test interpretation using the discrete element method. <i>Granular Matter</i> , 2015 , 17, 197-216	2.6	28
131	Adsorption of Surfactants on Fe ₂ O ₃ (0001): A Density Functional Theory Study. <i>Journal of Physical Chemistry C</i> , 2018 , 122, 20817-20826	3.8	26
130	Quantifying void fabric using a scan-line approach. <i>Computers and Geotechnics</i> , 2012 , 41, 1-12	4.4	26
129	Micromechanics of seismic wave propagation in granular materials. <i>Granular Matter</i> , 2016 , 18, 1	2.6	26
128	Implementation of rotational resistance models: A critical appraisal. <i>Particuology</i> , 2017 , 34, 14-23	2.8	25
127	Coupled particle-fluid simulations of the initiation of suffusion. <i>Soils and Foundations</i> , 2018 , 58, 972-985	2.9	25
126	In-Situ Observation of Cracks in Frozen Soil using Synchrotron Tomography. <i>Permafrost and Periglacial Processes</i> , 2012 , 23, 170-176	4.2	24
125	Effect of composition on the mechanical response of agglomerates of infant formulae. <i>Journal of Food Engineering</i> , 2011 , 107, 71-79	6	23
124	Theory of reciprocating contact for viscoelastic solids. <i>Physical Review E</i> , 2016 , 93, 043003	2.4	22
123	Quantifying the Evolution of Soil Fabric Under Different Stress Paths 2009 ,		22
122	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	2.8	21
121	Contact based void partitioning to assess filtration properties in DEM simulations. <i>Computers and Geotechnics</i> , 2015 , 64, 120-131	4.4	20
120	Temporal variation of contact networks in granular materials. <i>Granular Matter</i> , 2014 , 16, 41-54	2.6	19
119	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	1.4	18

118	Unraveling and Mapping the Mechanisms for Near-Surface Microstructure Evolution in CuNi Alloys under Sliding. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 32197-32208	9.5	18
117	Models and tissue mimics for brain shift simulations. <i>Biomechanics and Modeling in Mechanobiology</i> , 2018 , 17, 249-261	3.8	18
116	Up-cycling waste glass to minimal water adsorption/absorption lightweight aggregate by rapid low temperature sintering: optimization by dual process-mixture response surface methodology. <i>Environmental Science & Technology</i> , 2014 , 48, 7527-35	10.3	18
115	The mechanics and physics of high-speed dislocations: a critical review. <i>International Materials Reviews</i> , 2021 , 66, 215-255	16.1	17
114	Effect of tissue permeability and drug diffusion anisotropy on convection-enhanced delivery. <i>Drug Delivery</i> , 2019 , 26, 773-781	7	16
113	Quantifying stress-induced anisotropy using inter-void constrictions. <i>Geotechnique</i> , 2013 , 63, 85-91	3.4	16
112	A numerical study exploring the effect of particle properties on the fluidization of adhesive particles. <i>AIChE Journal</i> , 2016 , 62, 1467-1477	3.6	16
111	Micromechanical inspection of incremental behaviour of crushable soils. <i>Acta Geotechnica</i> , 2019 , 14, 1337-1356	4.9	15
110	Tribological evaluation of biomedical polycarbonate urethanes against articular cartilage. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2018 , 82, 394-402	4.1	15
109	3D Measurements of Lubricant and Surface Temperatures Within an Elastohydrodynamic Contact. <i>Tribology Letters</i> , 2018 , 66, 7	2.8	15
108	Simulating Surfactant-Iron Oxide Interfaces: From Density Functional Theory to Molecular Dynamics. <i>Journal of Physical Chemistry B</i> , 2019 , 123, 6870-6881	3.4	15
107	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	5.3	15
106	Liquid repellency enhancement through flexible microstructures. <i>Science Advances</i> , 2020 , 6, eaba9721	14.3	15
105	Analytical study of the accuracy of discrete element simulations. <i>International Journal for Numerical Methods in Engineering</i> , 2017 , 109, 29-51	2.4	14
104	An adaptive finite element model for steerable needles. <i>Biomechanics and Modeling in Mechanobiology</i> , 2020 , 19, 1809-1825	3.8	14
103	A micromechanics-based analytical method for wave propagation through a granular material. <i>Soil Dynamics and Earthquake Engineering</i> , 2013 , 45, 25-34	3.5	14
102	Use of a two-dimensional discrete-element line-sink model to gain insight into tunnelling-induced deformations. <i>Geotechnique</i> , 2013 , 63, 791-795	3.4	14
101	Applying 2D shape analysis techniques to granular materials with 3D particle geometries 2009 ,		14

100	Quarter-Car Experimental Study for Series Active Variable Geometry Suspension. <i>IEEE Transactions on Control Systems Technology</i> , 2019 , 27, 743-759	4.8	14
99	Sub-particle-scale investigation of seepage in sands. <i>Soils and Foundations</i> , 2017 , 57, 439-452	2.9	13
98	Influence of packing density and stress on the dynamic response of granular materials. <i>Granular Matter</i> , 2017 , 19, 1	2.6	13
97	The Influence of Surface Topography on Energy Dissipation and Compliance in Tangentially Loaded Elastic Contacts. <i>Journal of Tribology</i> , 2012 , 134,	1.8	13
96	Influence of Fabric on Stress Distribution in Gap-Graded Soil. <i>Journal of Geotechnical and Geoenvironmental Engineering - ASCE</i> , 2021 , 147, 04021016	3.4	13
95	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	4.4	12
94	A computational fluid dynamics approach to determine white matter permeability. <i>Biomechanics and Modeling in Mechanobiology</i> , 2019 , 18, 1111-1122	3.8	12
93	Discrete element method analysis of small-strain stiffness under anisotropic stress states. <i>Geotechnique Letters</i> , 2018 , 8, 183-189	1.7	11
92	The Role of Homogeneous Nucleation in Planar Dynamic Discrete Dislocation Plasticity. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2015 , 82,	2.7	11
91	Elastodynamic image forces on dislocations. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2015 , 471, 20150433	2.4	11
90	Influence of Particle Size Distribution on the Proportion of Stress-Transmitting Particles and Implications for Measures of Soil State. <i>Journal of Geotechnical and Geoenvironmental Engineering - ASCE</i> , 2021 , 147, 04020182	3.4	11
89	Polyelectrolyte pKa from experiment and molecular dynamics simulation. <i>RSC Advances</i> , 2017 , 7, 20007-20014	3.9	10
88	Bioinspired 3D Printed Locomotion Devices Based on Anisotropic Friction. <i>Small</i> , 2019 , 15, e1802931	11	10
87	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,	2.1	10
86	Discrete element modelling of the quasi-static uniaxial compression of individual infant formula agglomerates. <i>Particuology</i> , 2012 , 10, 523-531	2.8	10
85	Challenges of simulating undrained tests using the constant volume method in DEM 2013 ,		10
84	Modified Shear Spring Formulation for Discontinuous Deformation Analysis of Particulate Media. <i>Journal of Engineering Mechanics - ASCE</i> , 2003 , 129, 830-834	2.4	10
83	Detection of proteoglycan loss from articular cartilage using Brillouin microscopy, with applications to osteoarthritis. <i>Biomedical Optics Express</i> , 2019 , 10, 2457-2466	3.5	10

82	Substituent Effects on the Thermal Decomposition of Phosphate Esters on Ferrous Surfaces. <i>Journal of Physical Chemistry C</i> , 2020 , 124, 9852-9865	3.8	9
81	Parallel Active Link Suspension: A Quarter-Car Experimental Study. <i>IEEE/ASME Transactions on Mechatronics</i> , 2018 , 23, 2066-2077	5.5	9
80	Numerical modelling of rough particle contacts subject to normal and tangential loading. <i>Granular Matter</i> , 2019 , 21, 1	2.6	9
79	Synchrotron Radiography Studies of Shear-Induced Dilation in Semisolid Al Alloys and Steels. <i>Jom</i> , 2014 , 66, 1415-1424	2.1	9
78	Effect of Temperature on the Deformation Behavior of Copper Nickel Alloys under Sliding. <i>Materials</i> , 2020 , 14,	3.5	9
77	Influence of the coefficient of uniformity on the size and frequency of constrictions in sand filters. <i>Geotechnique</i> , 2019 , 69, 274-282	3.4	9
76	Partition of the contact force network obtained in discrete element simulations of element tests. <i>Computational Particle Mechanics</i> , 2017 , 4, 145-152	3	8
75	Geometric and Hydraulic Void Constrictions in Granular Media. <i>Journal of Geotechnical and Geoenvironmental Engineering - ASCE</i> , 2016 , 142, 04016057	3.4	8
74	Calculating the State Parameter in Crushable Sands. <i>International Journal of Geomechanics</i> , 2020 , 20, 04020095	3.1	7
73	Friction Induced Vibration in Windscreen Wiper Contacts. <i>Journal of Vibration and Acoustics, Transactions of the ASME</i> , 2015 , 137,	1.6	7
72	Optimal Placement of Piezoelectric Plates to Control Multimode Vibrations of a Beam. <i>Advances in Acoustics and Vibration</i> , 2013 , 2013, 1-8	0.8	7
71	Advancing geomechanics using DEM 2014 , 21-32		7
70	. <i>Journal of Strain Analysis for Engineering Design</i> , 2016 , 51, 240-246	1.3	7
69	Three-Dimensional Printed Surfaces Inspired by Bi-Gaussian Stratified Plateaus. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 20528-20534	9.5	6
68	Bi-Gaussian Stratified Wetting Model on Rough Surfaces. <i>Langmuir</i> , 2019 , 35, 5967-5974	4	6
67	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	4.3	6
66	Sensitivity to damping in sand production DEM-CFD coupled simulations 2013 ,		6
65	Pitch angle reduction for cars under acceleration and braking by active variable geometry suspension 2012 ,		6

64	Experimental Validation of Particle-Based Discrete Element Methods 2006 , 1		6
63	Self-Compensating Liquid-Repellent Surfaces with Stratified Morphology. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 4174-4182	9.5	6
62	Coarse-grained molecular dynamics simulations of clay compression. <i>Computers and Geotechnics</i> , 2021 , 138, 104333	4.4	6
61	Active Variable Geometry Suspension robust control for improved vehicle ride comfort and road holding 2015 ,		5
60	Capillary waves with surface viscosity. <i>Journal of Fluid Mechanics</i> , 2018 , 847, 644-663	3.7	5
59	A methodology for accurate roughness measurements of soils using optical interferometry 2014 , 1117-1122		5
58	Selecting an Appropriate Shear Plate Configuration to Measure Elastic Wave Velocities. <i>Geotechnical Testing Journal</i> , 2020 , 43, 20180146	1.3	5
57	Controlling the number of vortices and torque in Taylor-Couette flow. <i>Journal of Fluid Mechanics</i> , 2020 , 901,	3.7	5
56	Cartilage rehydration: The sliding-induced hydrodynamic triggering mechanism. <i>Acta Biomaterialia</i> , 2021 , 125, 90-99	10.8	5
55	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	3.8	5
54	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	2.8	5
53	Contributions of Molecular Dynamics Simulations to Elastohydrodynamic Lubrication. <i>Tribology Letters</i> , 2021 , 69, 1	2.8	5
52	Scale-Dependent Friction-Coverage Relations and Nonlocal Dissipation in Surfactant Monolayers. <i>Langmuir</i> , 2021 , 37, 2406-2418	4	5
51	Effect of Particle Size and Surface Charge on Nanoparticles Diffusion in the Brain White Matter.. <i>Pharmaceutical Research</i> , 2022 , 1	4.5	5
50	Transient structures in rupturing thin films: Marangoni-induced symmetry-breaking pattern formation in viscous fluids. <i>Science Advances</i> , 2020 , 6, eabb0597	14.3	4
49	Control Design for a Quarter Car Test Rig with Parallel Active Link Suspension 2018 ,		4
48	Image Segmentation Techniques for Granular Materials 2009 ,		4
47	Mechanochemistry of phosphate esters confined between sliding iron surfaces. <i>Communications Chemistry</i> , 2021 , 4,	6.3	4

46	A dual nozzle 3D printing system for super soft composite hydrogels.. <i>HardwareX</i> , 2021 , 9, e00176	2.7	4
45	Biomimetic Water-Repelling Surfaces with Robustly Flexible Structures. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 31310-31319	9.5	4
44	Using geophysical data to quantify stress transmission in gap-graded granular materials. <i>Geotechnique</i> , 1-18	3.4	4
43	Sliding wear analysis of cobalt based alloys in nuclear reactor conditions. <i>Wear</i> , 2017 , 376-377, 1489-1503	3.5	3
42	Fabric Evolution in Granular Materials Subject to Drained, Strain Controlled Cyclic Loading 2009 ,		3
41	A Micro-Mechanical Study of the Influence of Penetrometer Geometry on Failure Mechanisms in Granular Soils 2007 , 1		3
40	Measurement of constriction size distributions using three grain-scale methods 2016 ,		3
39	Molecular droplets vs bubbles: Effect of curvature on surface tension and Tolman length. <i>Physics of Fluids</i> , 2021 , 33, 072012	4.4	3
38	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	0.9	3
37	Anisotropic Friction: Bioinspired 3D Printed Locomotion Devices Based on Anisotropic Friction (Small 1/2019). <i>Small</i> , 2019 , 15, 1970005	11	3
36	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	4.7	3
35	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,	11.5	3
34	Linking macro-scale yielding and micro-scale response. <i>E3S Web of Conferences</i> , 2019 , 92, 14008	0.5	2
33	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	3.4	2
32	Use of elastic stability analysis to explain the stress-dependent nature of soil strength. <i>Royal Society Open Science</i> , 2015 , 2, 150038	3.3	2
31	Contact mechanics of frictional lap joints. <i>Journal of Strain Analysis for Engineering Design</i> , 2013 , 48, 321-339	3.9	2
30	Wavelet analysis of DEM simulations of samples under biaxial compression. <i>Granular Matter</i> , 2008 , 10, 389-398	2.6	2
29	Determining a representative element volume for DEM simulations of samples with non-circular particles. <i>Particuology</i> , 2022 , 68, 29-43	2.8	2

28	On the Origin of Plastic Deformation and Surface Evolution in Nano-Fretting: A Discrete Dislocation Plasticity Analysis. <i>Materials</i> , 2021 , 14,	3.5	2
27	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	4.1	2
26	CPL library A minimal framework for coupled particle and continuum simulation. <i>Computer Physics Communications</i> , 2020 , 250, 107068	4.2	2
25	Statistical Analysis and Molecular Dynamics Simulations of the Thermal Conductivity of Lennard-Jones Solids Including Their Pressure and Temperature Dependencies. <i>Physica Status Solidi (B): Basic Research</i> , 2020 , 257, 2000344	1.3	2
24	Ab Initio Study of Polytetrafluoroethylene Defluorination for Tribocharging Applications. <i>ACS Applied Polymer Materials</i> , 2020 , 2, 5129-5134	4.3	2
23	Triaxial Compression on Semi-solid Alloys. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2021 , 52, 2010-2023	2.3	2
22	Robust Control for a Full-Car Prototype of Series Active Variable Geometry Suspension* 2019 ,		2
21	The influence of particle size distribution on the stress distribution in granular materials. <i>Geotechnique</i> , 1-37	3.4	2
20	Insights into Infusion-Based Targeted Drug Delivery in the Brain: Perspectives, Challenges and Opportunities.. <i>International Journal of Molecular Sciences</i> , 2022 , 23,	6.3	2
19	Particle-scale insight into transitional behaviour of gap-graded materials B small-strain stiffness and frequency response. <i>E3S Web of Conferences</i> , 2019 , 92, 14006	0.5	1
18	Influence of stress anisotropy on stress distributions in gap-graded soils. <i>E3S Web of Conferences</i> , 2019 , 92, 14007	0.5	1
17	Experimental investigation into the primary fabric of stress transmitting particles 2014 , 1019-1024		1
16	Non-Equilibrium Phase Behavior of Confined Molecular Films at Low Shear Rates. <i>Physica Status Solidi (B): Basic Research</i> , 2017 , 254, 1600862	1.3	1
15	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	0.1	1
14	Before the bubble ruptures. <i>Physical Review Fluids</i> , 2017 , 2,	2.8	1
13	Flexibility-Patterned Liquid-Repelling Surfaces. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 29092-29100	3.5	1
12	Using Ultrasonic Reflection Resonance to Probe Stress Wave Velocity in Assemblies of Spherical Particles. <i>IEEE Sensors Journal</i> , 2021 , 1-1	4	1
11	Interfacial Bonding Controls Friction in Diamond-Biocompatible Contacts. <i>Journal of Physical Chemistry C</i> , 2021 , 125, 18395-18408	3.8	1

10	Acoustic Emission Enabled Particle Size Estimation via Low Stress-Varied Axial Interface Shearing. <i>IEEE Transactions on Instrumentation and Measurement</i> , 2022 , 71, 1-10	5.2	1
9	A semi-empirical re-evaluation of the influence of state on elastic stiffness in granular materials. <i>Granular Matter</i> , 2022 , 24, 1	2.6	1
8	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	3.9	1
7	Discrete Simulation of Cone Penetration in Granular Materials. <i>Computational Methods in Applied Sciences (Springer)</i> , 2018 , 95-111	0.4	0
6	Marangoni effect on small-amplitude capillary waves in viscous fluids. <i>Physical Review E</i> , 2017 , 96, 053110	0.4	0
5	What Does a Brain Feel Like?. <i>Journal of Chemical Education</i> , 2020 , 97, 4078-4083	2.4	0
4	Analysis of the stress distribution in a laminar direct simple shear device and implications for test data interpretation. <i>Granular Matter</i> , 2021 , 23, 1	2.6	0
3	Comparative analysis of porosity coarse-graining techniques for discrete element simulations of dense particulate systems. <i>Computational Particle Mechanics</i> , 1	3	0
2	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	0.3	
1	Morphometric study of the ventricular indexes in healthy ovine BRAIN using MRI.. <i>BMC Veterinary Research</i> , 2022 , 18, 97	2.7	