

Catherine O Sullivan

List of Publications by Year in Descending Order

Source: <https://exaly.com/author-pdf/2842822/catherine-osullivan-publications-by-year.pdf>

Version: 2024-04-28

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

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
citations

39
h-index

64
g-index

199
ext. papers

6,174
ext. citations

4
avg, IF

6.27
L-index

#	Paper	IF	Citations
189	Determining a representative element volume for DEM simulations of samples with non-circular particles. <i>Particuology</i> , 2022 , 68, 29-43	2.8	2
188	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
187	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
186	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
185	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
184	Effect of Particle Size and Surface Charge on Nanoparticles Diffusion in the Brain White Matter.. <i>Pharmaceutical Research</i> , 2022 , 1	4.5	5
183	Morphometric study of the ventricular indexes in healthy ovine BRAIN using MRI.. <i>BMC Veterinary Research</i> , 2022 , 18, 97	2.7	
182	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
181	Mechanochemistry of phosphate esters confined between sliding iron surfaces. <i>Communications Chemistry</i> , 2021 , 4,	6.3	4
180	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
179	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
178	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
177	A dual nozzle 3D printing system for super soft composite hydrogels.. <i>HardwareX</i> , 2021 , 9, e00176	2.7	4
176	Cartilage rehydration: The sliding-induced hydrodynamic triggering mechanism. <i>Acta Biomaterialia</i> , 2021 , 125, 90-99	10.8	5
175	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
174	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
173	Flexibility-Patterned Liquid-Repelling Surfaces. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 29092-29100	3.5	1

172	Biomimetic Water-Repelling Surfaces with Robustly Flexible Structures. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 31310-31319	9.5	4
171	Molecular droplets vs bubbles: Effect of curvature on surface tension and Tolman length. <i>Physics of Fluids</i> , 2021 , 33, 072012	4.4	3
170	The mechanics and physics of high-speed dislocations: a critical review. <i>International Materials Reviews</i> , 2021 , 66, 215-255	16.1	17
169	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
168	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
167	Using Ultrasonic Reflection Resonance to Probe Stress Wave Velocity in Assemblies of Spherical Particles. <i>IEEE Sensors Journal</i> , 2021 , 1-1	4	1
166	Contributions of Molecular Dynamics Simulations to Elastohydrodynamic Lubrication. <i>Tribology Letters</i> , 2021 , 69, 1	2.8	5
165	Scale-Dependent Friction-Coverage Relations and Nonlocal Dissipation in Surfactant Monolayers. <i>Langmuir</i> , 2021 , 37, 2406-2418	4	5
164	Interfacial Bonding Controls Friction in Diamond-Rock Contacts. <i>Journal of Physical Chemistry C</i> , 2021 , 125, 18395-18408	3.8	1
163	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
162	Coarse-grained molecular dynamics simulations of clay compression. <i>Computers and Geotechnics</i> , 2021 , 138, 104333	4.4	6
161	Calculating the State Parameter in Crushable Sands. <i>International Journal of Geomechanics</i> , 2020 , 20, 04020095	3.1	7
160	An adaptive finite element model for steerable needles. <i>Biomechanics and Modeling in Mechanobiology</i> , 2020 , 19, 1809-1825	3.8	14
159	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
158	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
157	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
156	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
155	Selecting an Appropriate Shear Plate Configuration to Measure Elastic Wave Velocities. <i>Geotechnical Testing Journal</i> , 2020 , 43, 20180146	1.3	5

154	Effect of Temperature on the Deformation Behavior of Copper Nickel Alloys under Sliding. <i>Materials</i> , 2020 , 14,	3.5	9
153	Self-Compensating Liquid-Repellent Surfaces with Stratified Morphology. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 4174-4182	9.5	6
152	CPL library: A minimal framework for coupled particle and continuum simulation. <i>Computer Physics Communications</i> , 2020 , 250, 107068	4.2	2
151	Liquid repellency enhancement through flexible microstructures. <i>Science Advances</i> , 2020 , 6, eaba9721	14.3	15
150	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
149	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
148	Ab Initio Study of Polytetrafluoroethylene Defluorination for Tribocharging Applications. <i>ACS Applied Polymer Materials</i> , 2020 , 2, 5129-5134	4.3	2
147	Controlling the number of vortices and torque in Taylor-Couette flow. <i>Journal of Fluid Mechanics</i> , 2020 , 901,	3.7	5
146	What Does a Brain Feel Like?. <i>Journal of Chemical Education</i> , 2020 , 97, 4078-4083	2.4	0
145	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	0.5	1
144	Influence of stress anisotropy on stress distributions in gap-graded soils. <i>E3S Web of Conferences</i> , 2019 , 92, 14007	0.5	1
143	Linking macro-scale yielding and micro-scale response. <i>E3S Web of Conferences</i> , 2019 , 92, 14008	0.5	2
142	Bioinspired 3D Printed Locomotion Devices Based on Anisotropic Friction. <i>Small</i> , 2019 , 15, e1802931	11	10
141	Micromechanical inspection of incremental behaviour of crushable soils. <i>Acta Geotechnica</i> , 2019 , 14, 1337-1356	4.9	15
140	Three-Dimensional Printed Surfaces Inspired by Bi-Gaussian Stratified Plateaus. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 20528-20534	9.5	6
139	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
138	Bi-Gaussian Stratified Wetting Model on Rough Surfaces. <i>Langmuir</i> , 2019 , 35, 5967-5974	4	6
137	A computational fluid dynamics approach to determine white matter permeability. <i>Biomechanics and Modeling in Mechanobiology</i> , 2019 , 18, 1111-1122	3.8	12

136	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
135	Effect of tissue permeability and drug diffusion anisotropy on convection-enhanced delivery. <i>Drug Delivery</i> , 2019 , 26, 773-781	7	16
134	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
133	Numerical modelling of rough particle contacts subject to normal and tangential loading. <i>Granular Matter</i> , 2019 , 21, 1	2.6	9
132	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
131	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
130	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
129	Robust Control for a Full-Car Prototype of Series Active Variable Geometry Suspension* 2019 ,		2
128	Anisotropic Friction: Bioinspired 3D Printed Locomotion Devices Based on Anisotropic Friction (Small 1/2019). <i>Small</i> , 2019 , 15, 1970005	11	3
127	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
126	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
125	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
124	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
123	3D Measurements of Lubricant and Surface Temperatures Within an Elastohydrodynamic Contact. <i>Tribology Letters</i> , 2018 , 66, 7	2.8	15
122	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
121	Models and tissue mimics for brain shift simulations. <i>Biomechanics and Modeling in Mechanobiology</i> , 2018 , 17, 249-261	3.8	18
120	Discrete Simulation of Cone Penetration in Granular Materials. <i>Computational Methods in Applied Sciences (Springer)</i> , 2018 , 95-111	0.4	0
119	Discrete element method analysis of small-strain stiffness under anisotropic stress states. <i>Geotechnique Letters</i> , 2018 , 8, 183-189	1.7	11

118	Adsorption of Surfactants on α -Fe ₂ O ₃ (0001): A Density Functional Theory Study. <i>Journal of Physical Chemistry C</i> , 2018 , 122, 20817-20826	3.8	26
117	Parallel Active Link Suspension: A Quarter-Car Experimental Study. <i>IEEE/ASME Transactions on Mechatronics</i> , 2018 , 23, 2066-2077	5.5	9
116	Control Design for a Quarter Car Test Rig with Parallel Active Link Suspension 2018 ,		4
115	Capillary waves with surface viscosity. <i>Journal of Fluid Mechanics</i> , 2018 , 847, 644-663	3.7	5
114	Coupled particle-fluid simulations of the initiation of suffusion. <i>Soils and Foundations</i> , 2018 , 58, 972-985	2.9	25
113	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
112	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
111	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
110	Polyelectrolyte pKa from experiment and molecular dynamics simulation. <i>RSC Advances</i> , 2017 , 7, 20007-20014	3.9	10
109	Implementation of rotational resistance models: A critical appraisal. <i>Particuology</i> , 2017 , 34, 14-23	2.8	25
108	Cryogenic 3D Printing of Super Soft Hydrogels. <i>Scientific Reports</i> , 2017 , 7, 16293	4.9	62
107	Meeting the Contact-Mechanics Challenge. <i>Tribology Letters</i> , 2017 , 65, 1	2.8	163
106	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
105	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
104	Sliding wear analysis of cobalt based alloys in nuclear reactor conditions. <i>Wear</i> , 2017 , 376-377, 1489-1503	3.5	3
103	Sub-particle-scale investigation of seepage in sands. <i>Soils and Foundations</i> , 2017 , 57, 439-452	2.9	13
102	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
101	Marangoni effect on small-amplitude capillary waves in viscous fluids. <i>Physical Review E</i> , 2017 , 96, 053110	4	0

100	Soft Matter Lubrication: Does Solid Viscoelasticity Matter?. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 42287-42295	9.5	36
99	Influence of packing density and stress on the dynamic response of granular materials. <i>Granular Matter</i> , 2017 , 19, 1	2.6	13
98	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	
97	Before the bubble ruptures. <i>Physical Review Fluids</i> , 2017 , 2,	2.8	1
96	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
95	Theory of reciprocating contact for viscoelastic solids. <i>Physical Review E</i> , 2016 , 93, 043003	2.4	22
94	Soft Tissue Phantoms for Realistic Needle Insertion: A Comparative Study. <i>Annals of Biomedical Engineering</i> , 2016 , 44, 2442-2452	4.7	45
93	Geometric and Hydraulic Void Constrictions in Granular Media. <i>Journal of Geotechnical and Geoenvironmental Engineering - ASCE</i> , 2016 , 142, 04016057	3.4	8
92	Measurement of constriction size distributions using three grain-scale methods 2016 ,		3
91	A Comparison of Classical Force-Fields for Molecular Dynamics Simulations of Lubricants. <i>Materials</i> , 2016 , 9,	3.5	65
90	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
89	Micromechanics of seismic wave propagation in granular materials. <i>Granular Matter</i> , 2016 , 18, 1	2.6	26
88	. <i>Journal of Strain Analysis for Engineering Design</i> , 2016 , 51, 240-246	1.3	7
87	Nonequilibrium Molecular Dynamics Simulations of Organic Friction Modifiers Adsorbed on Iron Oxide Surfaces. <i>Langmuir</i> , 2016 , 32, 4450-63	4	72
86	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
85	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
84	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
83	Analysis of bender element test interpretation using the discrete element method. <i>Granular Matter</i> , 2015 , 17, 197-216	2.6	28

82	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
81	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
80	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
79	Active Variable Geometry Suspension robust control for improved vehicle ride comfort and road holding 2015 ,		5
78	Series Active Variable Geometry Suspension for Road Vehicles. <i>IEEE/ASME Transactions on Mechatronics</i> , 2015 , 20, 361-372	5.5	29
77	Particle-scale mechanics of sand crushing in compression and shearing using DEM. <i>Soils and Foundations</i> , 2015 , 55, 1100-1112	2.9	59
76	The Role of Homogeneous Nucleation in Planar Dynamic Discrete Dislocation Plasticity. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2015 , 82,	2.7	11
75	Elastodynamic image forces on dislocations. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2015 , 471, 20150433	2.4	11
74	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
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	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
71	Contact based void partitioning to assess filtration properties in DEM simulations. <i>Computers and Geotechnics</i> , 2015 , 64, 120-131	4.4	20
70	Temporal variation of contact networks in granular materials. <i>Granular Matter</i> , 2014 , 16, 41-54	2.6	19
69	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
68	Synchrotron Radiography Studies of Shear-Induced Dilation in Semisolid Al Alloys and Steels. <i>Jom</i> , 2014 , 66, 1415-1424	2.1	9
67	Sand production simulation coupling DEM with CFD. <i>European Journal of Environmental and Civil Engineering</i> , 2014 , 18, 983-1008	1.5	35
66	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
65	Effect of sample size on the response of DEM samples with a realistic grading. <i>Particuology</i> , 2014 , 15, 107-115	2.8	78

64	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
63	Experimental investigation into the primary fabric of stress transmitting particles 2014 , 1019-1024		1
62	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
61	Fabric and Effective Stress Distribution in Internally Unstable Soils. <i>Journal of Geotechnical and Geoenvironmental Engineering - ASCE</i> , 2014 , 140, 04014072	3.4	89
60	A methodology for accurate roughness measurements of soils using optical interferometry 2014 , 1117-1122		5
59	Advancing geomechanics using DEM 2014 , 21-32		7
58	Experimental Investigation of Viscoelastic Rolling Contacts: A Comparison with Theory. <i>Tribology Letters</i> , 2013 , 51, 105-113	2.8	32
57	Micromechanical assessment of an internal stability criterion. <i>Acta Geotechnica</i> , 2013 , 8, 81-90	4.9	67
56	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
55	Quantifying the evolution of soil fabric during shearing using directional parameters. <i>Geotechnique</i> , 2013 , 63, 487-499	3.4	105
54	Discrete element method simulations of analogue reservoir sandstones. <i>International Journal of Rock Mechanics and Minings Sciences</i> , 2013 , 63, 93-103	6	40
53	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
52	Traction and nonequilibrium phase behavior of confined sheared liquids at high pressure. <i>Physical Review E</i> , 2013 , 88, 052406	2.4	34
51	In situ study of granular micromechanics in semi-solid carbon steels. <i>Acta Materialia</i> , 2013 , 61, 4169-4178	3.4	32
50	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
49	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
48	Quantifying the evolution of soil fabric during shearing using scalar parameters. <i>Geotechnique</i> , 2013 , 63, 818-829	3.4	61
47	Contact mechanics of frictional lap joints. <i>Journal of Strain Analysis for Engineering Design</i> , 2013 , 48, 321-329		2

46	Quantifying stress-induced anisotropy using inter-void constrictions. <i>Geotechnique</i> , 2013 , 63, 85-91	3.4	16
45	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
44	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
43	Challenges of simulating undrained tests using the constant volume method in DEM 2013 ,		10
42	Sensitivity to damping in sand production DEM-CFD coupled simulations 2013 ,		6
41	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
40	Non-invasive characterization of particle morphology of natural sands. <i>Soils and Foundations</i> , 2012 , 52, 712-722	2.9	145
39	Characterization of artificial spherical particles for DEM validation studies. <i>Particuology</i> , 2012 , 10, 209-2208		40
38	Discrete element modelling of the quasi-static uniaxial compression of individual infant formula agglomerates. <i>Particuology</i> , 2012 , 10, 523-531	2.8	10
37	In-Situ Observation of Cracks in Frozen Soil using Synchrotron Tomography. <i>Permafrost and Periglacial Processes</i> , 2012 , 23, 170-176	4.2	24
36	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
35	Exploring dendrite coherency with the discrete element method. <i>Acta Materialia</i> , 2012 , 60, 1334-1345	8.4	34
34	Quantifying void fabric using a scan-line approach. <i>Computers and Geotechnics</i> , 2012 , 41, 1-12	4.4	26
33	The mechanics of rigid irregular particles subject to uniaxial compression. <i>Geotechnique</i> , 2012 , 62, 681-692		36
32	Pitch angle reduction for cars under acceleration and braking by active variable geometry suspension 2012 ,		6
31	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
30	Experimental Evidence of Micro-EHL Lubrication in Rough Soft Contacts. <i>Tribology Letters</i> , 2011 , 43, 169-174		38
29	Effect of composition on the mechanical response of agglomerates of infant formulae. <i>Journal of Food Engineering</i> , 2011 , 107, 71-79	6	23

28	Lubrication in soft rough contacts: A novel homogenized approach. Part II - Discussion. <i>Soft Matter</i> , 2011 , 7, 10407	3.6	29
27	Lubrication in soft rough contacts: A novel homogenized approach. Part I - Theory. <i>Soft Matter</i> , 2011 , 7, 10395	3.6	57
26	Application of Taguchi methods to DEM calibration of bonded agglomerates. <i>Powder Technology</i> , 2011 , 210, 230-240	5.2	67
25	Particle-Based Discrete Element Modeling: Geomechanics Perspective. <i>International Journal of Geomechanics</i> , 2011 , 11, 449-464	3.1	131
24	The influence of particle characteristics on the behaviour of coarse grained soils. <i>Geotechnique</i> , 2010 , 60, 413-423	3.4	263
23	Stress-induced anisotropy in sand under cyclic loading. <i>Granular Matter</i> , 2010 , 12, 469-476	2.6	29
22	Particle breakage during cyclic triaxial loading of a carbonate sand. <i>Geotechnique</i> , 2009 , 59, 477-482	3.4	71
21	Quantifying the Evolution of Soil Fabric Under Different Stress Paths 2009 ,		22
20	Image Segmentation Techniques for Granular Materials 2009 ,		4
19	Fabric Evolution in Granular Materials Subject to Drained, Strain Controlled Cyclic Loading 2009 ,		3
18	Applying 2D shape analysis techniques to granular materials with 3D particle geometries 2009 ,		14
17	Micromechanics of granular material response during load reversals: Combined DEM and experimental study. <i>Powder Technology</i> , 2009 , 193, 289-302	5.2	75
16	DISCRETE ELEMENT ANALYSIS OF THE RESPONSE OF GRANULAR MATERIALS DURING CYCLIC LOADING. <i>Soils and Foundations</i> , 2008 , 48, 511-530	2.9	60
15	Wavelet analysis of DEM simulations of samples under biaxial compression. <i>Granular Matter</i> , 2008 , 10, 389-398	2.6	2
14	Effective simulation of flexible lateral boundaries in two- and three-dimensional DEM simulations. <i>Particuology</i> , 2008 , 6, 483-500	2.8	76
13	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
12	A Micro-Mechanical Study of the Influence of Penetrometer Geometry on Failure Mechanisms in Granular Soils 2007 , 1		3
11	Experimental Validation of Particle-Based Discrete Element Methods 2006 , 1		6

10	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
9	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
8	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
7	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
6	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
5	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
4	Particulate Discrete Element Modelling		232
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	Using geophysical data to quantify stress transmission in gap-graded granular materials. <i>Geotechnique</i> , 1-18	3.4	4
1	The influence of particle size distribution on the stress distribution in granular materials. <i>Geotechnique</i> , 1-37	3.4	2