RaÃºl C Hidalgo

List of Publications by Year
in descending order

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66	1,685	279798	289244
papers	citations	23 h-index	40 g-index

66	66	66	995
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Clogging transition of many-particle systems flowing through bottlenecks. Scientific Reports, 2014, 4, 7324.	3.3	237
2	Fracture model with variable range of interaction. Physical Review E, 2002, 65, 046148.	2.1	119
3	Disentangling the Free-Fall Arch Paradox in Silo Discharge. Physical Review Letters, 2015, 114, 238002.	7.8	108
4	Bursts in a fiber bundle model with continuous damage. Physical Review E, 2001, 64, 066122.	2.1	72
5	Evolution of Percolating Force Chains in Compressed Granular Media. Physical Review Letters, 2002, 89, 205501.	7.8	71
6	Role of Particle Shape on the Stress Propagation in Granular Packings. Physical Review Letters, 2009, 103, 118001.	7.8	71
7	Breaking Arches with Vibrations: The Role of Defects. Physical Review Letters, 2012, 109, 068001.	7.8	69
8	Creep rupture of viscoelastic fiber bundles. Physical Review E, 2002, 65, 032502.	2.1	54
9	Force analysis of clogging arches in a silo. Granular Matter, 2013, 15, 841-848.	2.2	52
10	Creep rupture has two universality classes. Europhysics Letters, 2003, 63, 347-353.	2.0	48
11	Avalanche dynamics of fiber bundle models. Physical Review E, 2009, 80, 051108.	2.1	40
12	Contact forces and dynamics of pedestrians evacuating a room: The column effect. Safety Science, 2020, 121, 394-402.	4.9	39
13	Settling into dry granular media in different gravities. Geophysical Research Letters, 2014, 41, 3032-3037.	4.0	37
14	Scaling laws of creep rupture of fiber bundles. Physical Review E, 2003, 67, 061802.	2.1	34
15	Stress distribution of faceted particles in a silo after its partial discharge. European Physical Journal E, 2011, 34, 1-8.	1.6	34
16	Size dependency of tension strength in natural fiber composites. Physica A: Statistical Mechanics and Its Applications, 2003, 325, 547-560.	2.6	30
17	Universality class of fiber bundles with strong heterogeneities. Europhysics Letters, 2008, 81, 54005.	2.0	27
18	Granular packings of elongated faceted particles deposited under gravity. Journal of Statistical Mechanics: Theory and Experiment, 2010, 2010, P06025.	2.3	26

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19	Smectic ordering of homogeneous semiflexible polymers. Physical Review E, 2005, 71, 041804.	2.1	24
20	Extension of fibre bundle models for creep rupture and interface failure. International Journal of Fracture, 2006, 140, 255-265.	2.2	24
21	Simulating competitive egress of noncircular pedestrians. Physical Review E, 2017, 95, 042319.	2.1	24
22	Flow of colloidal suspensions through small orifices. Physical Review E, 2018, 97, 012611.	2.1	24
23	Homogeneous cooling state of frictionless rod particles. Physica A: Statistical Mechanics and Its Applications, 2016, 443, 477-485.	2.6	23
24	Estimating density limits for walking pedestrians keeping a safe interpersonal distancing. Scientific Reports, 2021, 11, 1534.	3.3	22
25	Time evolution of damage under variable ranges of load transfer. Physical Review E, 2003, 68, 026116.	2.1	21
26	Large-scale numerical simulations of polydisperse particle flow in a silo. Computational Particle Mechanics, 2017, 4, 419-427.	3.0	21
27	Critical ruptures in a bundle of slowly relaxing fibers. Physical Review E, 2008, 77, 036102.	2.1	20
28	Brittle-to-ductile transition in a fiber bundle with strong heterogeneity. Physical Review E, 2013, 87, 042816.	2.1	20
29	Cooling dynamics of a granular gas of elongated particles. Journal of Statistical Mechanics: Theory and Experiment, 2010, 2010, P06020.	2.3	19
30	Granular gas of ellipsoids: analytical collision detection implemented on GPUs. Computational Particle Mechanics, 2015, 2, 127-138.	3.0	19
31	Rheological response of nonspherical granular flows down an incline. Physical Review Fluids, 2018, 3, .	2.5	19
32	Smectic phases in rodâ€“coil diblock copolymers. Journal of Physics Condensed Matter, 2007, 19, 376107.	1.8	17
33	Velocity fluctuations inside two and three dimensional silos. Granular Matter, 2019, 21, 1.	2.2	17
34	Active particles with desired orientation flowing through a bottleneck. Scientific Reports, 2018, 8, 9133.	3.3	16
35	Pedestrian evacuation simulation in the presence of an obstacle using self-propelled spherocylinders. Physical Review E, 2020, 102, 012907.	2.1	15
36	Granular packings of cohesive elongated particles. Granular Matter, 2012, 14, 191-196.	2.2	14

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37	Influence of the feeding mechanism on deposits of square particles. Physical Review E, 2013, 87, 012202.	2.1	14
38	Flow in an hourglass: particle friction and stiffness matter. New Journal of Physics, 2021, 23, 023001.	2.9	13
39	Stress transmission in systems of faceted particles in a silo: the roles of filling rate and particle aspect ratio. Granular Matter, 2014, 16, 411-420.	2.2	12
40	Slow relaxation of fiber composites, variable range of interaction approach. Physica A: Statistical Mechanics and Its Applications, 2005, 347, 402-410.	2.6	10
41	The role of initial speed in projectile impacts into light granular media. Scientific Reports, 2020, 10, 3207.	3.3	10
42	Discrete fracture model with anisotropic load sharing. Journal of Statistical Mechanics: Theory and Experiment, 2008, 2008, P01004.	2.3	9
43	Phase transitions of semiflexible hard-sphere chain liquids. Physical Review E, 2006, 73, 032701.	2.1	8
44	On the use of graphics processing units (GPUs) for molecular dynamics simulation of spherical particles. , 2013, , .		8
45	Effect of physical distancing on the speedâ€“density relation in pedestrian dynamics. Journal of Statistical Mechanics: Theory and Experiment, 2021, 2021, 043401.	2.3	8
46	Universality of vortex avalanches in a type II superconductor with periodic pinning. Physica A: Statistical Mechanics and Its Applications, 2000, 275, 15-21.	2.6	7
47	Particle flow rate in silos under rotational shear. Physical Review E, 2020, 102, 042902.	2.1	6
48	Silo discharge of mixtures of soft and rigid grains. Soft Matter, 2021, 17, 4282-4295.	2.7	5
49	Spontaneous emergence of counterclockwise vortex motion in assemblies of pedestrians roaming within an enclosure. Scientific Reports, 2022, 12, 2647.	3.3	5
50	Fragmenting granular gases. Europhysics Letters, 2007, 77, 64001.	2.0	4
51	Driven fragmentation of granular gases. Physical Review E, 2008, 77, 061305.	2.1	4
52	Velocity and density scaling at the outlet of a silo and its role in the expression of the mass flow rate. , 2013, , .		4
53	Ordering and stress transmission in packings of straight and curved spherocylinders. Granular Matter, 2016, 18, 1.	2.2	4
54	The role of the hopper angle in silos: experimental and CFD analysis. Granular Matter, 2021, 23, 1.	2.2	4

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55	Rheological behavior of colloidal suspension with long-range interactions. Physical Review E, 2018, 98, .	2.1	3
56	Clogging-jamming connection in narrow vertical pipes. Physical Review E, 2020, 102, 010902.	2.1	3
57	Visual analysis of density and velocity profiles in dense 3D granular gases. Scientific Reports, 2021, 11, 10621.	3.3	3
58	Modeling particle-fluid interaction in a coupled CFD-DEM framework. EPJ Web of Conferences, 2021, 249, 09004.	0.3	3
59	Homogeneous cooling of mixtures of particle shapes. Physics of Fluids, 2016, 28, 073301.	4.0	2
60	Continuously heated granular gas of elongated particles. EPJ Web of Conferences, 2021, 249, 04003.	0.3	2
61	Critical numerical analysis of quasi-two-dimensional silo-hopper discharging. Granular Matter, 2021, 23, 1.	2.2	2
62	Motion of a sphere in a viscous fluid towards a wall confined versus unconfined conditions. Granular Matter, 2022, 24, 1.	2.2	2
63	Scaling laws in granular flow and pedestrian flow. , 2013, , .		1
64	Influence of the feeding rate on the packing properties of faceted particles. , 2013, , .		1
65	Cluster dynamics in dense granular gases of rod-like particles. EPJ Web of Conferences, 2021, 249, 04004.	0.3	1
66	Scaling Analysis and CFD Simulations of the Silos Discharge Process. Springer Proceedings in Physics, 2020, , 405-410.	0.2	0