

James T Jenkins

List of Publications by Year in descending order

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89

papers

5,937

citations

126907

33

h-index

69250

77

g-index

89

all docs

89

docs citations

89

times ranked

1929

citing authors

#	ARTICLE	IF	CITATIONS
1	Particle segregation in inclined high-speed granular flows. <i>Journal of Fluid Mechanics</i> , 2022, 935, .	3.4	1
2	How vertical oscillatory motion above a saturated sand bed leads to heap formation. <i>Physical Review E</i> , 2022, 105, .	2.1	0
3	Predictions of microstructure and stress in planar extensional flows of a dense viscous suspension. <i>Journal of Fluid Mechanics</i> , 2021, 912, .	3.4	3
4	Extended kinetic theory for granular flow over and within an inclined erodible bed. <i>Journal of Fluid Mechanics</i> , 2020, 885, .	3.4	33
5	Segregation in a dense, inclined, granular flow with basal layering. <i>Granular Matter</i> , 2020, 22, 1.	2.2	3
6	Singular behavior of the stresses in the limit of random close packing in collisional, simple shearing flows of frictionless spheres. <i>Physical Review Fluids</i> , 2020, 5, .	2.5	5
7	Bedforms Produced on a Particle Bed by Vertical Oscillations of a Plate. <i>Physical Review Letters</i> , 2019, 123, 058501.	7.8	4
8	Erodible, granular beds are fragile. <i>Soft Matter</i> , 2019, 15, 7173-7178.	2.7	17
9	The influence of granular segregation on gravity-driven particle-fluid flows. <i>Advances in Water Resources</i> , 2019, 129, 365-372.	3.8	7
10	A micro-mechanical model for the Biot theory of acoustic waves in a fully saturated granular material. <i>Proceedings of Meetings on Acoustics</i> , 2018, , .	0.3	1
11	Comments on avalanche flow models based on the concept of random kinetic energy. <i>Journal of Glaciology</i> , 2018, 64, 148-164.	2.2	10
12	Two-phase continuum theory for windblown sand. <i>Physical Review Fluids</i> , 2018, 3, .	2.5	9
13	Fluidity, anisotropy, and velocity correlations in frictionless, collisional grain flows. <i>Physical Review Fluids</i> , 2018, 3, .	2.5	14
14	Bed failure induced by internal solitary waves. <i>Journal of Geophysical Research: Oceans</i> , 2017, 122, 5468-5485.	2.6	14
15	The threshold for continuing saltation on Earth and other solar system bodies. <i>Journal of Geophysical Research F: Earth Surface</i> , 2017, 122, 1374-1388.	2.8	12
16	Dense, layered, inclined flows of spheres. <i>Physical Review Fluids</i> , 2017, 2, .	2.5	5
17	Periodic saltation over hydrodynamically rough beds: aeolian to aquatic. <i>Journal of Fluid Mechanics</i> , 2016, 786, 190-209.	3.4	24
18	The evolution of segregation in dense inclined flows of binary mixtures of spheres. <i>Journal of Fluid Mechanics</i> , 2015, 782, 405-429.	3.4	42

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19	Acoustic signals generated in inclined granular flows. Journal of Geophysical Research F: Earth Surface, 2015, 120, 2027-2039.	2.8	1
20	Report on the Program "Fluid-mediated particle transport in geophysical flows" at the Kavli Institute for Theoretical Physics, UC Santa Barbara, September 23 to December 12, 2013. Physics of Fluids, 2015, 27, 096601.	4.0	2
21	Steady shearing flows of deformable, inelastic spheres. Soft Matter, 2015, 11, 4799-4808.	2.7	48
22	An analytical determination of microstructure and stresses in a dense, sheared monolayer of non-Brownian spheres. Journal of Fluid Mechanics, 2015, 763, 218-236.	3.4	4
23	Periodic trajectories in aeolian sand transport. Physics of Fluids, 2014, 26, .	4.0	22
24	Segregation and mixture profiles in dense, inclined flows of two types of spheres. Physics of Fluids, 2013, 25, .	4.0	43
25	Segregation in dense, dry, inclined flows of binary mixtures of grains. , 2013, , .		0
26	Kinetic theory applied to inclined flows. Granular Matter, 2012, 14, 79-84.	2.2	38
27	Surface flows of inelastic spheres. Physics of Fluids, 2011, 23, .	4.0	32
28	Dense inclined flows of inelastic spheres: tests of an extension of kinetic theory. Granular Matter, 2010, 12, 151-158.	2.2	120
29	A Chute Flow of Inelastic Spheres. Progress of Theoretical Physics Supplement, 2010, 184, 49-56.	0.1	1
30	Size Segregation in Dry Granular Flows of Binary Mixtures. , 2010, , .		1
31	Microstructure and Particle-Phase Stress in a Dense Suspension. , 2010, , .		0
32	Steady, Inclined Flow of a Mixture of Grains and Fluid over a Rigid Base. , 2010, , .		0
33	Continuum model for steady, fully developed saltation above a horizontal particle bed. Physical Review E, 2010, 82, 020301.	2.1	21
34	New formulas for the motion resistance of debris flows. WIT Transactions on Engineering Sciences, 2010, , .	0.0	0
35	The Influence of Size Segregation in Particle-Fluid Flows. , 2009, , .		0
36	Constant Pressure Axisymmetric Compression of an Aggregate of Identical, Elastic, Frictional Spheres. , 2009, , .		1

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37	Saltating particles in a turbulent boundary layer: experiment and theory. <i>Journal of Fluid Mechanics</i> , 2009, 625, 47-74.	3.4	175
38	Steady inclined flows of granular-fluid mixtures. <i>Journal of Fluid Mechanics</i> , 2009, 641, 359-387.	3.4	20
39	Experimental investigation and kinetic-theory-based model of a rapid granular shear flow. <i>Journal of Fluid Mechanics</i> , 2008, 602, 63-79.	3.4	21
40	A higher-order boundary layer analysis for lipid vesicles with two fluid domains. <i>Journal of Fluid Mechanics</i> , 2008, 597, 429-448.	3.4	14
41	A theoretical analysis of free-surface flows of saturated granular-liquid mixtures. <i>Journal of Fluid Mechanics</i> , 2008, 608, 393-410.	3.4	53
42	The initial response of an idealized granular material. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2007, 463, 735-758.	2.1	38
43	Density inversion in rapid granular flows: the supported regime. <i>European Physical Journal E</i> , 2007, 22, 17-24.	1.6	26
44	Dense inclined flows of inelastic spheres. <i>Granular Matter</i> , 2007, 10, 47-52.	2.2	107
45	Dense shearing flows of inelastic disks. <i>Physics of Fluids</i> , 2006, 18, 103307.	4.0	134
46	The influence of different species's granular temperatures on segregation in a binary mixture of dissipative grains. <i>Physics of Fluids</i> , 2006, 18, 073303.	4.0	30
47	Aeolian transport with collisional suspension. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2005, 363, 1625-1646.	3.4	29
48	Hydrodynamic interaction of rough spheres. <i>Granular Matter</i> , 2005, 7, 13-18.	2.2	17
49	Kinetic theory for identical, frictional, nearly elastic disks. <i>Physics of Fluids</i> , 2005, 17, 083301.	4.0	27
50	Granular Materials and the Risks They Pose for Success on the Moon and Mars. <i>AIP Conference Proceedings</i> , 2005, , .	0.4	6
51	Stress and Strain in Flat Piling of Disks. <i>Journal of the Physical Society of Japan</i> , 2004, 73, 926-931.	1.6	2
52	Binary mixtures of inelastic spheres: Simplified constitutive theory. <i>Physics of Fluids</i> , 2004, 16, 4543-4550.	4.0	39
53	The incremental response of random aggregates of identical round particles. <i>European Physical Journal E</i> , 2004, 13, 113-123.	1.6	25
54	On two-phase sediment transport: sheet flow of massive particles. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2004, 460, 2223-2250.	2.1	183

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55	On two-phase sediment transport: Dilute flow. Journal of Geophysical Research, 2003, 108, .	3.3	101
56	Superstable Granular Heap in a Thin Channel. Physical Review Letters, 2003, 91, 264301.	7.8	151
57	Segregation in Binary Mixtures under Gravity. Physical Review Letters, 2002, 88, 194301.	7.8	114
58	Simulation of Sediment Suspension Using Two-Phase Approach. , 2002, , 1386.		0
59	Kinetic theory for identical, frictional, nearly elastic spheres. Physics of Fluids, 2002, 14, 1228-1235.	4.0	188
60	Anomalous Frictional Behavior in Collisions of Thin Disks. Journal of Applied Mechanics, Transactions ASME, 1999, 66, 146-152.	2.2	34
61	Hydraulic theory for a debris flow supported on a collisional shear layer. Chaos, 1999, 9, 654-658.	2.5	21
62	Collisional sheet flows of sediment driven by a turbulent fluid. Journal of Fluid Mechanics, 1998, 370, 29-52.	3.4	149
63	On the flux of fluctuation energy in a collisional grain flow at a flat, frictional wall. Physics of Fluids, 1997, 9, 2835-2840.	4.0	90
64	Analysis of the Motion of a Frictional Elastic Ball Dropped on an Inclined Surface. Journal of Applied Mechanics, Transactions ASME, 1997, 64, 707-709.	2.2	1
65	Rapid Granular Flow Down Inclines. Applied Mechanics Reviews, 1994, 47, S240-S244.	10.1	16
66	An analysis of texture and plastic spin for planar polycrystals. Journal of the Mechanics and Physics of Solids, 1993, 41, 1357-1382.	4.8	65
67	The balance of momentum and energy at an interface between colliding and freely flying grains in a rapid granular flow. Physics of Fluids A, Fluid Dynamics, 1993, 5, 781-783.	1.6	16
68	Boundary Conditions for Rapid Granular Flow: Flat, Frictional Walls. Journal of Applied Mechanics, Transactions ASME, 1992, 59, 120-127.	2.2	153
69	Boundary conditions for rapid granular flows: phase interfaces. Journal of Fluid Mechanics, 1991, 223, 497.	3.4	55
70	The role of particle collisions in pneumatic transport. Journal of Fluid Mechanics, 1991, 231, 345-359.	3.4	206
71	Symposium on Material Instability. Applied Mechanics Reviews, 1990, 43, S185-S185.	10.1	0
72	Localization in Granular Materials. Applied Mechanics Reviews, 1990, 43, S194-S195.	10.1	7

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73	Kinetic theory for binary mixtures of smooth, nearly elastic spheres. <i>Physics of Fluids A, Fluid Dynamics</i> , 1989, 1, 2050-2057.	1.6	202
74	Plane simple shear of smooth inelastic circular disks: the anisotropy of the second moment in the dilute and dense limits. <i>Journal of Fluid Mechanics</i> , 1988, 192, 313-328.	3.4	156
75	The Thickness of Steady Plane Shear Flows of Circular Disks Driven by Identical Boundaries. <i>Journal of Applied Mechanics, Transactions ASME</i> , 1988, 55, 969-974.	2.2	47
76	Balance Laws and Constitutive Relations for Plane Flows of a Dense, Binary Mixture of Smooth, Nearly Elastic, Circular Disks. <i>Journal of Applied Mechanics, Transactions ASME</i> , 1987, 54, 27-34.	2.2	221
77	Boundary conditions for plane flows of smooth, nearly elastic, circular disks. <i>Journal of Fluid Mechanics</i> , 1986, 171, 53.	3.4	176
78	Grad's 13-moment system for a dense gas of inelastic spheres. <i>Archive for Rational Mechanics and Analysis</i> , 1985, 87, 355-377.	2.4	423
79	Kinetic theory for plane flows of a dense gas of identical, rough, inelastic, circular disks. <i>Physics of Fluids</i> , 1985, 28, 3485.	1.4	450
80	A theory for the rapid flow of identical, smooth, nearly elastic, spherical particles. <i>Journal of Fluid Mechanics</i> , 1983, 130, 187.	3.4	1,239
81	Singular Perturbation Solutions of the Circumferential Contact Problem for the Belted Radial Truck and Bus Tire. <i>Journal of Applied Mechanics, Transactions ASME</i> , 1980, 47, 519-524.	2.2	5
82	The Circumferential Contact Problem for the Belted Radial Tire. <i>Journal of Applied Mechanics, Transactions ASME</i> , 1980, 47, 513-518.	2.2	12
83	Elongation upon torsion in a theory for the inelastic behavior of metals. <i>Journal of Applied Physics</i> , 1980, 51, 953-958.	2.5	9
84	A Mechanical Model for Mammalian Tendon. <i>Journal of Applied Mechanics, Transactions ASME</i> , 1975, 42, 755-758.	2.2	32
85	Evaluation of Material Functions for Steady Elongational Flows. <i>Journal of Rheology</i> , 1975, 19, 397-450.	0.6	15
86	Static Equilibrium of Granular Materials. <i>Journal of Applied Mechanics, Transactions ASME</i> , 1975, 42, 603-606.	2.2	48
87	Propagating Plane Disinclination Surfaces in Nematic Liquid Crystals. <i>Molecular Crystals and Liquid Crystals</i> , 1974, 27, 105-109.	0.8	1
88	On a Material Coefficient in Cholesteric Liquid Crystals. <i>Molecular Crystals and Liquid Crystals</i> , 1972, 18, 309-312.	0.8	5
89	A theory of magnetic fluids. <i>Archive for Rational Mechanics and Analysis</i> , 1972, 46, 42-60.	2.4	45