## James T Jenkins

## List of Publications by Citations

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80 5,138 31 71 g-index

89 5,520 3.7 Ext. papers ext. citations avg, IF L-index

#	Paper	IF	Citations
80	A theory for the rapid flow of identical, smooth, nearly elastic, spherical particles. <i>Journal of Fluid Mechanics</i> , <b>1983</b> , 130, 187	3.7	1112
79	Kinetic theory for plane flows of a dense gas of identical, rough, inelastic, circular disks. <i>Physics of Fluids</i> , <b>1985</b> , 28, 3485		403
78	Grad's 13-moment system for a dense gas of inelastic spheres. <i>Archive for Rational Mechanics and Analysis</i> , <b>1985</b> , 87, 355-377	2.3	398
77	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> , <b>1987</b> , 54, 27-34	2.7	186
76	Kinetic theory for binary mixtures of smooth, nearly elastic spheres. <i>Physics of Fluids A, Fluid Dynamics</i> , <b>1989</b> , 1, 2050-2057		179
75	The role of particle collisions in pneumatic transport. <i>Journal of Fluid Mechanics</i> , <b>1991</b> , 231, 345-359	3.7	172
74	Kinetic theory for identical, frictional, nearly elastic spheres. <i>Physics of Fluids</i> , <b>2002</b> , 14, 1228-1235	4.4	168
73	Boundary conditions for plane flows of smooth, nearly elastic, circular disks. <i>Journal of Fluid Mechanics</i> , <b>1986</b> , 171, 53	3.7	160
<del>7</del> 2	Saltating particles in a turbulent boundary layer: experiment and theory. <i>Journal of Fluid Mechanics</i> , <b>2009</b> , 625, 47-74	3.7	145
71	On two-phase sediment transport: sheet flow of massive particles. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , <b>2004</b> , 460, 2223-2250	2.4	145
70	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> , <b>1988</b> , 192, 313-328	3.7	141
69	Collisional sheet flows of sediment driven by a turbulent fluid. <i>Journal of Fluid Mechanics</i> , <b>1998</b> , 370, 29-52	3.7	137
68	Boundary Conditions for Rapid Granular Flow: Flat, Frictional Walls. <i>Journal of Applied Mechanics, Transactions ASME</i> , <b>1992</b> , 59, 120-127	2.7	135
67	Superstable granular heap in a thin channel. <i>Physical Review Letters</i> , <b>2003</b> , 91, 264301	7.4	131
66	Dense shearing flows of inelastic disks. <i>Physics of Fluids</i> , <b>2006</b> , 18, 103307	4.4	105
65	Dense inclined flows of inelastic spheres: tests of an extension of kinetic theory. <i>Granular Matter</i> , <b>2010</b> , 12, 151-158	2.6	101
64	Dense inclined flows of inelastic spheres. <i>Granular Matter</i> , <b>2007</b> , 10, 47-52	2.6	89

## (2006-2002)

63	Segregation in binary mixtures under gravity. <i>Physical Review Letters</i> , <b>2002</b> , 88, 194301	7.4	86
62	On two-phase sediment transport: Dilute flow. <i>Journal of Geophysical Research</i> , <b>2003</b> , 108,		84
61	On the flux of fluctuation energy in a collisional grain flow at a flat, frictional wall. <i>Physics of Fluids</i> , <b>1997</b> , 9, 2835-2840	4.4	82
60	An analysis of texture and plastic spin for planar polycrystals. <i>Journal of the Mechanics and Physics of Solids</i> , <b>1993</b> , 41, 1357-1382	5	60
59	Boundary conditions for rapid granular flows: phase interfaces. <i>Journal of Fluid Mechanics</i> , <b>1991</b> , 223, 497	3.7	50
58	Static Equilibrium of Granular Materials. <i>Journal of Applied Mechanics, Transactions ASME</i> , <b>1975</b> , 42, 603	3- <u>60</u> ,6	45
57	A theoretical analysis of free-surface flows of saturated granular Ilquid mixtures. <i>Journal of Fluid Mechanics</i> , <b>2008</b> , 608, 393-410	3.7	43
56	The Thickness of Steady Plane Shear Flows of Circular Disks Driven by Identical Boundaries. <i>Journal of Applied Mechanics, Transactions ASME</i> , <b>1988</b> , 55, 969-974	2.7	43
55	A theory of magnetic fluids. Archive for Rational Mechanics and Analysis, 1972, 46, 42-60	2.3	38
54	Segregation and mixture profiles in dense, inclined flows of two types of spheres. <i>Physics of Fluids</i> , <b>2013</b> , 25, 113301	4.4	35
53	The evolution of segregation in dense inclined flows of binary mixtures of spheres. <i>Journal of Fluid Mechanics</i> , <b>2015</b> , 782, 405-429	3.7	34
52	Steady shearing flows of deformable, inelastic spheres. <i>Soft Matter</i> , <b>2015</b> , 11, 4799-808	3.6	34
51	Binary mixtures of inelastic spheres: Simplified constitutive theory. <i>Physics of Fluids</i> , <b>2004</b> , 16, 4543-455	504.4	34
50	Kinetic theory applied to inclined flows. <i>Granular Matter</i> , <b>2012</b> , 14, 79-84	2.6	31
49	Surface flows of inelastic spheres. <i>Physics of Fluids</i> , <b>2011</b> , 23, 013303	4.4	28
48	The initial response of an idealized granular material. <i>Proceedings of the Royal Society A:</i> Mathematical, Physical and Engineering Sciences, <b>2007</b> , 463, 735-758	2.4	28
47	A Mechanical Model for Mammalian Tendon. <i>Journal of Applied Mechanics, Transactions ASME</i> , <b>1975</b> , 42, 755-758	2.7	28
46	The influence of different specieslgranular temperatures on segregation in a binary mixture of dissipative grains. <i>Physics of Fluids</i> , <b>2006</b> , 18, 073303	4.4	27

45	Aeolian transport with collisional suspension. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , <b>2005</b> , 363, 1625-46	3	27
44	Kinetic theory for identical, frictional, nearly elastic disks. <i>Physics of Fluids</i> , <b>2005</b> , 17, 083301	4.4	26
43	Anomalous Frictional Behavior in Collisions of Thin Disks. <i>Journal of Applied Mechanics, Transactions ASME</i> , <b>1999</b> , 66, 146-152	2.7	26
42	The incremental response of random aggregates of identical round particles. <i>European Physical Journal E</i> , <b>2004</b> , 13, 113-23	1.5	23
41	Density inversion in rapid granular flows: the supported regime. <i>European Physical Journal E</i> , <b>2007</b> , 22, 17-24	1.5	21
40	Hydraulic theory for a debris flow supported on a collisional shear layer. <i>Chaos</i> , <b>1999</b> , 9, 654-658	3.3	19
39	Experimental investigation and kinetic-theory-based model of a rapid granular shear flow. <i>Journal of Fluid Mechanics</i> , <b>2008</b> , 602, 63-79	3.7	18
38	Periodic saltation over hydrodynamically rough beds: aeolian to aquatic. <i>Journal of Fluid Mechanics</i> , <b>2016</b> , 786, 190-209	3.7	18
37	Periodic trajectories in aeolian sand transport. <i>Physics of Fluids</i> , <b>2014</b> , 26, 073301	4.4	17
36	Continuum model for steady, fully developed saltation above a horizontal particle bed. <i>Physical Review E</i> , <b>2010</b> , 82, 020301	2.4	17
35	Steady inclined flows of granular-fluid mixtures. <i>Journal of Fluid Mechanics</i> , <b>2009</b> , 641, 359-387	3.7	17
34	Hydrodynamic interaction of rough spheres. <i>Granular Matter</i> , <b>2005</b> , 7, 13-18	2.6	15
33	The balance of momentum and energy at an interface between colliding and freely flying grains in a rapid granular flow. <i>Physics of Fluids A, Fluid Dynamics</i> , <b>1993</b> , 5, 781-783		15
32	Rapid Granular Flow Down Inclines. <i>Applied Mechanics Reviews</i> , <b>1994</b> , 47, S240-S244	8.6	15
31	Evaluation of Material Functions for Steady Elongational Flows. <i>Journal of Rheology</i> , <b>1975</b> , 19, 397-450		14
30	A higher-order boundary layer analysis for lipid vesicles with two fluid domains. <i>Journal of Fluid Mechanics</i> , <b>2008</b> , 597, 429-448	3.7	12
29	The threshold for continuing saltation on Earth and other solar system bodies. <i>Journal of Geophysical Research F: Earth Surface</i> , <b>2017</b> , 122, 1374-1388	3.8	10
28	Extended kinetic theory for granular flow over and within an inclined erodible bed. <i>Journal of Fluid Mechanics</i> , <b>2020</b> , 885,	3.7	10

## (2021-1980)

27	The Circumferential Contact Problem for the Belted Radial Tire. <i>Journal of Applied Mechanics, Transactions ASME</i> , <b>1980</b> , 47, 513-518	2.7	9
26	Elongation upon torsion in a theory for the inelastic behavior of metals. <i>Journal of Applied Physics</i> , <b>1980</b> , 51, 953-958	2.5	9
25	Fluidity, anisotropy, and velocity correlations in frictionless, collisional grain flows. <i>Physical Review Fluids</i> , <b>2018</b> , 3,	2.8	8
24	Bed failure induced by internal solitary waves. <i>Journal of Geophysical Research: Oceans</i> , <b>2017</b> , 122, 5468	- <u>5</u> 485	7
23	Erodible, granular beds are fragile. Soft Matter, 2019, 15, 7173-7178	3.6	7
22	Localization in Granular Materials. <i>Applied Mechanics Reviews</i> , <b>1990</b> , 43, S194-S195	8.6	7
21	Two-phase continuum theory for windblown sand. <i>Physical Review Fluids</i> , <b>2018</b> , 3,	2.8	7
20	Comments on avalanche flow models based on the concept of random kinetic energy. <i>Journal of Glaciology</i> , <b>2018</b> , 64, 148-164	3.4	6
19	Granular Materials and the Risks They Pose for Success on the Moon and Mars. <i>AIP Conference Proceedings</i> , <b>2005</b> ,	О	5
18	Singular Perturbation Solutions of the Circumferential Contact Problem for the Belted Radial Truck and Bus Tire. <i>Journal of Applied Mechanics, Transactions ASME</i> , <b>1980</b> , 47, 519-524	2.7	5
17	On a Material Coefficient in Cholesteric Liquid Crstals. <i>Molecular Crystals and Liquid Crystals</i> , <b>1972</b> , 18, 309-312		5
16	An analytical determination of microstructure and stresses in a dense, sheared monolayer of non-Brownian spheres. <i>Journal of Fluid Mechanics</i> , <b>2015</b> , 763, 218-236	3.7	4
15	Bedforms Produced on a Particle Bed by Vertical Oscillations of a Plate. <i>Physical Review Letters</i> , <b>2019</b> , 123, 058501	7.4	3
14	Dense, layered, inclined flows of spheres. <i>Physical Review Fluids</i> , <b>2017</b> , 2,	2.8	3
13	The influence of granular segregation on gravity-driven particle-fluid flows. <i>Advances in Water Resources</i> , <b>2019</b> , 129, 365-372	4.7	3
12	Report on the Program Huid-mediated particle transport in geophysical flowslat the Kavli Institute for Theoretical Physics, UC Santa Barbara, September 23 to December 12, 2013. <i>Physics of Fluids</i> , <b>2015</b> , 27, 096601	4.4	2
11	Stress and Strain in Flat Piling of Disks. Journal of the Physical Society of Japan, 2004, 73, 926-931	1.5	2
10	Predictions of microstructure and stress in planar extensional flows of a dense viscous suspension. Journal of Fluid Mechanics, <b>2021</b> , 912,	3.7	2

9	Segregation in a dense, inclined, granular flow with basal layering. <i>Granular Matter</i> , <b>2020</b> , 22, 1	2.6	1	
8	Acoustic signals generated in inclined granular flows. <i>Journal of Geophysical Research F: Earth Surface</i> , <b>2015</b> , 120, 2027-2039	3.8	1	
7	A Chute Flow of Inelastic Spheres. Progress of Theoretical Physics Supplement, 2010, 184, 49-56		1	
6	Size Segregation in Dry Granular Flows of Binary Mixtures <b>2010</b> ,		1	
5	Analysis of the Motion of a Frictional Elastic Ball Dropped on an Inclined Surface. <i>Journal of Applied Mechanics, Transactions ASME</i> , <b>1997</b> , 64, 707-709	2.7	1	
4	Propagating Plane Disinclination Surfaces in Nematic Liquid Crystals. <i>Molecular Crystals and Liquid Crystals</i> , <b>1974</b> , 27, 105-109		1	
3	A micro-mechanical model for the Biot theory of acoustic waves in a fully saturated granular material <b>2018</b> ,		1	
2	Simulation of Sediment Suspension Using Two-Phase Approach <b>2002</b> , 1386			
1	Symposium on Material Instability. <i>Applied Mechanics Reviews</i> , <b>1990</b> , 43, S185-S185	8.6		