

James T Jenkins

List of Publications by Year in descending order

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89
papers

5,937
citations

145106

33
h-index

78623

77
g-index

89
all docs

89
docs citations

89
times ranked

2169
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 1 | Particle segregation in inclined high-speed granular flows. <i>Journal of Fluid Mechanics</i> , 2022, 935, . | 1.4 | 1 |
| 2 | How vertical oscillatory motion above a saturated sand bed leads to heap formation. <i>Physical Review E</i> , 2022, 105, . | 0.8 | 0 |
| 3 | Predictions of microstructure and stress in planar extensional flows of a dense viscous suspension. <i>Journal of Fluid Mechanics</i> , 2021, 912, . | 1.4 | 3 |
| 4 | Extended kinetic theory for granular flow over and within an inclined erodible bed. <i>Journal of Fluid Mechanics</i> , 2020, 885, . | 1.4 | 33 |
| 5 | Segregation in a dense, inclined, granular flow with basal layering. <i>Granular Matter</i> , 2020, 22, 1. | 1.1 | 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, . | 1.0 | 5 |
| 7 | Bedforms Produced on a Particle Bed by Vertical Oscillations of a Plate. <i>Physical Review Letters</i> , 2019, 123, 058501. | 2.9 | 4 |
| 8 | Erodible, granular beds are fragile. <i>Soft Matter</i> , 2019, 15, 7173-7178. | 1.2 | 17 |
| 9 | The influence of granular segregation on gravity-driven particle-fluid flows. <i>Advances in Water Resources</i> , 2019, 129, 365-372. | 1.7 | 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. | 1.1 | 10 |
| 12 | Two-phase continuum theory for windblown sand. <i>Physical Review Fluids</i> , 2018, 3, . | 1.0 | 9 |
| 13 | Fluidity, anisotropy, and velocity correlations in frictionless, collisional grain flows. <i>Physical Review Fluids</i> , 2018, 3, . | 1.0 | 14 |
| 14 | Bed failure induced by internal solitary waves. <i>Journal of Geophysical Research: Oceans</i> , 2017, 122, 5468-5485. | 1.0 | 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. | 1.0 | 12 |
| 16 | Dense, layered, inclined flows of spheres. <i>Physical Review Fluids</i> , 2017, 2, . | 1.0 | 5 |
| 17 | Periodic saltation over hydrodynamically rough beds: aeolian to aquatic. <i>Journal of Fluid Mechanics</i> , 2016, 786, 190-209. | 1.4 | 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. | 1.4 | 42 |

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|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 19 | Acoustic signals generated in inclined granular flows. Journal of Geophysical Research F: Earth Surface, 2015, 120, 2027-2039. | 1.0 | 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. | 1.6 | 2 |
| 21 | Steady shearing flows of deformable, inelastic spheres. Soft Matter, 2015, 11, 4799-4808. | 1.2 | 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. | 1.4 | 4 |
| 23 | Periodic trajectories in aeolian sand transport. Physics of Fluids, 2014, 26, . | 1.6 | 22 |
| 24 | Segregation and mixture profiles in dense, inclined flows of two types of spheres. Physics of Fluids, 2013, 25, . | 1.6 | 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. | 1.1 | 38 |
| 27 | Surface flows of inelastic spheres. Physics of Fluids, 2011, 23, . | 1.6 | 32 |
| 28 | Dense inclined flows of inelastic spheres: tests of an extension of kinetic theory. Granular Matter, 2010, 12, 151-158. | 1.1 | 120 |
| 29 | A Chute Flow of Inelastic Spheres. Progress of Theoretical Physics Supplement, 2010, 184, 49-56. | 0.2 | 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. | 0.8 | 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 |

| # | ARTICLE | IF | CITATIONS |
|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 37 | Saltating particles in a turbulent boundary layer: experiment and theory. <i>Journal of Fluid Mechanics</i> , 2009, 625, 47-74. | 1.4 | 175 |
| 38 | Steady inclined flows of granular-fluid mixtures. <i>Journal of Fluid Mechanics</i> , 2009, 641, 359-387. | 1.4 | 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. | 1.4 | 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. | 1.4 | 14 |
| 41 | A theoretical analysis of free-surface flows of saturated granular-liquid mixtures. <i>Journal of Fluid Mechanics</i> , 2008, 608, 393-410. | 1.4 | 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. | 1.0 | 38 |
| 43 | Density inversion in rapid granular flows: the supported regime. <i>European Physical Journal E</i> , 2007, 22, 17-24. | 0.7 | 26 |
| 44 | Dense inclined flows of inelastic spheres. <i>Granular Matter</i> , 2007, 10, 47-52. | 1.1 | 107 |
| 45 | Dense shearing flows of inelastic disks. <i>Physics of Fluids</i> , 2006, 18, 103307. | 1.6 | 134 |
| 46 | The influence of different species' granular temperatures on segregation in a binary mixture of dissipative grains. <i>Physics of Fluids</i> , 2006, 18, 073303. | 1.6 | 30 |
| 47 | Aeolian transport with collisional suspension. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2005, 363, 1625-1646. | 1.6 | 29 |
| 48 | Hydrodynamic interaction of rough spheres. <i>Granular Matter</i> , 2005, 7, 13-18. | 1.1 | 17 |
| 49 | Kinetic theory for identical, frictional, nearly elastic disks. <i>Physics of Fluids</i> , 2005, 17, 083301. | 1.6 | 27 |
| 50 | Granular Materials and the Risks They Pose for Success on the Moon and Mars. <i>AIP Conference Proceedings</i> , 2005, , . | 0.3 | 6 |
| 51 | Stress and Strain in Flat Piling of Disks. <i>Journal of the Physical Society of Japan</i> , 2004, 73, 926-931. | 0.7 | 2 |
| 52 | Binary mixtures of inelastic spheres: Simplified constitutive theory. <i>Physics of Fluids</i> , 2004, 16, 4543-4550. | 1.6 | 39 |
| 53 | The incremental response of random aggregates of identical round particles. <i>European Physical Journal E</i> , 2004, 13, 113-123. | 0.7 | 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. | 1.0 | 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. | 2.9 | 151 |
| 57 | Segregation in Binary Mixtures under Gravity. Physical Review Letters, 2002, 88, 194301. | 2.9 | 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. | 1.6 | 188 |
| 60 | Anomalous Frictional Behavior in Collisions of Thin Disks. Journal of Applied Mechanics, Transactions ASME, 1999, 66, 146-152. | 1.1 | 34 |
| 61 | Hydraulic theory for a debris flow supported on a collisional shear layer. Chaos, 1999, 9, 654-658. | 1.0 | 21 |
| 62 | Collisional sheet flows of sediment driven by a turbulent fluid. Journal of Fluid Mechanics, 1998, 370, 29-52. | 1.4 | 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. | 1.6 | 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. | 1.1 | 1 |
| 65 | Rapid Granular Flow Down Inclines. Applied Mechanics Reviews, 1994, 47, S240-S244. | 4.5 | 16 |
| 66 | An analysis of texture and plastic spin for planar polycrystals. Journal of the Mechanics and Physics of Solids, 1993, 41, 1357-1382. | 2.3 | 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. | 1.1 | 153 |
| 69 | Boundary conditions for rapid granular flows: phase interfaces. Journal of Fluid Mechanics, 1991, 223, 497. | 1.4 | 55 |
| 70 | The role of particle collisions in pneumatic transport. Journal of Fluid Mechanics, 1991, 231, 345-359. | 1.4 | 206 |
| 71 | Symposium on Material Instability. Applied Mechanics Reviews, 1990, 43, S185-S185. | 4.5 | 0 |
| 72 | Localization in Granular Materials. Applied Mechanics Reviews, 1990, 43, S194-S195. | 4.5 | 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. | 1.4 | 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. | 1.1 | 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. | 1.1 | 221 |
| 77 | Boundary conditions for plane flows of smooth, nearly elastic, circular disks. <i>Journal of Fluid Mechanics</i> , 1986, 171, 53. | 1.4 | 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. | 1.1 | 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. | 1.4 | 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. | 1.1 | 5 |
| 82 | The Circumferential Contact Problem for the Belted Radial Tire. <i>Journal of Applied Mechanics, Transactions ASME</i> , 1980, 47, 513-518. | 1.1 | 12 |
| 83 | Elongation upon torsion in a theory for the inelastic behavior of metals. <i>Journal of Applied Physics</i> , 1980, 51, 953-958. | 1.1 | 9 |
| 84 | A Mechanical Model for Mammalian Tendon. <i>Journal of Applied Mechanics, Transactions ASME</i> , 1975, 42, 755-758. | 1.1 | 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. | 1.1 | 48 |
| 87 | Propagating Plane Disinclination Surfaces in Nematic Liquid Crystals. <i>Molecular Crystals and Liquid Crystals</i> , 1974, 27, 105-109. | 0.9 | 1 |
| 88 | On a Material Coefficient in Cholesteric Liquid Crystals. <i>Molecular Crystals and Liquid Crystals</i> , 1972, 18, 309-312. | 0.9 | 5 |
| 89 | A theory of magnetic fluids. <i>Archive for Rational Mechanics and Analysis</i> , 1972, 46, 42-60. | 1.1 | 45 |