# RaÃºl C Hidalgo

List of Publications by Year
in descending order



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|---|---|---|---|
| 66 papers | 1,685 citations | 279798<br>23 h-index | 289244<br>40 g-index |
| 66 all docs | 66 docs citations | 66 times ranked | 995 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Motion of a sphere in a viscous fluid towards a wall confined versus unconfined conditions. Granular Matter, 2022, 24, 1. | 2.2 | 2 |
| 2 | Spontaneous emergence of counterclockwise vortex motion in assemblies of pedestrians roaming within an enclosure. Scientific Reports, 2022, 12, 2647. | 3.3 | 5 |
| 3 | Continuously heated granular gas of elongated particles. EPJ Web of Conferences, 2021, 249, 04003. | 0.3 | 2 |
| 4 | Estimating density limits for walking pedestrians keeping a safe interpersonal distancing. Scientific Reports, 2021, 11, 1534. | 3.3 | 22 |
| 5 | Cluster dynamics in dense granular gases of rod-like particles. EPJ Web of Conferences, 2021, 249, 04004. | 0.3 | 1 |
| 6 | Silo discharge of mixtures of soft and rigid grains. Soft Matter, 2021, 17, 4282-4295. | 2.7 | 5 |
| 7 | Flow in an hourglass: particle friction and stiffness matter. New Journal of Physics, 2021, 23, 023001. | 2.9 | 13 |
| 8 | The role of the hopper angle in silos: experimental and CFD analysis. Granular Matter, 2021, 23, 1. | 2.2 | 4 |
| 9 | 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 |
| 10 | Visual analysis of density and velocity profiles in dense 3D granular gases. Scientific Reports, 2021, 11, 10621. | 3.3 | 3 |
| 11 | Critical numerical analysis of quasi-two-dimensional silo-hopper discharging. Granular Matter, 2021, 23, 1. | 2.2 | 2 |
| 12 | Modeling particle-fluid interaction in a coupled CFD-DEM framework. EPJ Web of Conferences, 2021, 249, 09004. | 0.3 | 3 |
| 13 | Contact forces and dynamics of pedestrians evacuating a room: The column effect. Safety Science, 2020, 121, 394-402. | 4.9 | 39 |
| 14 | Particle flow rate in silos under rotational shear. Physical Review E, 2020, 102, 042902. | 2.1 | 6 |
| 15 | Clogging-jamming connection in narrow vertical pipes. Physical Review E, 2020, 102, 010902. | 2.1 | 3 |
| 16 | Pedestrian evacuation simulation in the presence of an obstacle using self-propelled spherocylinders. Physical Review E, 2020, 102, 012907. | 2.1 | 15 |
| 17 | The role of initial speed in projectile impacts into light granular media. Scientific Reports, 2020, 10, 3207. | 3.3 | 10 |
| 18 | Scaling Analysis and CFD Simulations of the Silos Discharge Process. Springer Proceedings in Physics, 2020, , 405-410. | 0.2 | 0 |

| # | Article | IF | Citations |
| --- | --- | --- | --- |
| 19 | Velocity fluctuations inside two and three dimensional silos. Granular Matter, 2019, 21, 1. | 2.2 | 17 |
| 20 | Flow of colloidal suspensions through small orifices. Physical Review E, 2018, 97, 012611. | 2.1 | 24 |
| 21 | Rheological behavior of colloidal suspension with long-range interactions. Physical Review E, 2018, 98, . | 2.1 | 3 |
| 22 | Active particles with desired orientation flowing through a bottleneck. Scientific Reports, 2018, 8, 9133. | 3.3 | 16 |
| 23 | Rheological response of nonspherical granular flows down an incline. Physical Review Fluids, 2018, 3, . | 2.5 | 19 |
| 24 | Simulating competitive egress of noncircular pedestrians. Physical Review E, 2017, 95, 042319. | 2.1 | 24 |
| 25 | Large-scale numerical simulations of polydisperse particle flow in a silo. Computational Particle Mechanics, 2017, 4, 419-427. | 3.0 | 21 |
| 26 | Ordering and stress transmission in packings of straight and curved spherocylinders. Granular Matter, 2016, 18, 1. | 2.2 | 4 |
| 27 | Homogeneous cooling of mixtures of particle shapes. Physics of Fluids, 2016, 28, 073301. | 4.0 | 2 |
| 28 | Homogeneous cooling state of frictionless rod particles. Physica A: Statistical Mechanics and Its Applications, 2016, 443, 477-485. | 2.6 | 23 |
| 29 | Granular gas of ellipsoids: analytical collision detection implemented on GPUs. Computational Particle Mechanics, 2015, 2, 127-138. | 3.0 | 19 |
| 30 | Disentangling the Free-Fall Arch Paradox in Silo Discharge. Physical Review Letters, 2015, 114, 238002. | 7.8 | 108 |
| 31 | Settling into dry granular media in different gravities. Geophysical Research Letters, 2014, 41, 3032-3037. | 4.0 | 37 |
| 32 | 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 |
| 33 | Clogging transition of many-particle systems flowing through bottlenecks. Scientific Reports, 2014, 4, 7324. | 3.3 | 237 |
| 34 | Force analysis of clogging arches in a silo. Granular Matter, 2013, 15, 841-848. | 2.2 | 52 |
| 35 | Influence of the feeding mechanism on deposits of square particles. Physical Review E, 2013, 87, 012202. | 2.1 | 14 |
| 36 | Brittle-to-ductile transition in a fiber bundle with strong heterogeneity. Physical Review E, 2013, 87, 042816. | 2.1 | 20 |

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|---|---|---|---|
| 37 | Scaling laws in granular flow and pedestrian flow. , 2013, , . | | 1 |
| 38 | On the use of graphics processing units (GPUs) for molecular dynamics simulation of spherical particles. , 2013, , . | | 8 |
| 39 | Velocity and density scaling at the outlet of a silo and its role in the expression of the mass flow rate. , 2013, , . | | 4 |
| 40 | Influence of the feeding rate on the packing properties of faceted particles. , 2013, , . | | 1 |
| 41 | Breaking Arches with Vibrations: The Role of Defects. Physical Review Letters, 2012, 109, 068001. | 7.8 | 69 |
| 42 | Granular packings of cohesive elongated particles. Granular Matter, 2012, 14, 191-196. | 2.2 | 14 |
| 43 | Stress distribution of faceted particles in a silo after its partial discharge. European Physical Journal E, 2011, 34, 1-8. | 1.6 | 34 |
| 44 | Cooling dynamics of a granular gas of elongated particles. Journal of Statistical Mechanics: Theory and Experiment, 2010, 2010, P06020. | 2.3 | 19 |
| 45 | Granular packings of elongated faceted particles deposited under gravity. Journal of Statistical Mechanics: Theory and Experiment, 2010, 2010, P06025. | 2.3 | 26 |
| 46 | Avalanche dynamics of fiber bundle models. Physical Review E, 2009, 80, 051108. | 2.1 | 40 |
| 47 | Role of Particle Shape on the Stress Propagation in Granular Packings. Physical Review Letters, 2009, 103, 118001. | 7.8 | 71 |
| 48 | Universality class of fiber bundles with strong heterogeneities. Europhysics Letters, 2008, 81, 54005. | 2.0 | 27 |
| 49 | Discrete fracture model with anisotropic load sharing. Journal of Statistical Mechanics: Theory and Experiment, 2008, 2008, P01004. | 2.3 | 9 |
| 50 | Critical ruptures in a bundle of slowly relaxing fibers. Physical Review E, 2008, 77, 036102. | 2.1 | 20 |
| 51 | Driven fragmentation of granular gases. Physical Review E, 2008, 77, 061305. | 2.1 | 4 |
| 52 | Fragmenting granular gases. Europhysics Letters, 2007, 77, 64001. | 2.0 | 4 |
| 53 | Smectic phases in rodâ€“coil diblock copolymers. Journal of Physics Condensed Matter, 2007, 19, 376107. | 1.8 | 17 |
| 54 | Extension of fibre bundle models for creep rupture and interface failure. International Journal of Fracture, 2006, 140, 255-265. | 2.2 | 24 |

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|---|---|---|---|
| 55 | Phase transitions of semiflexible hard-sphere chain liquids. Physical Review E, 2006, 73, 032701. | 2.1 | 8 |
| 56 | Slow relaxation of fiber composites, variable range of interaction approach. Physica A: Statistical Mechanics and Its Applications, 2005, 347, 402-410. | 2.6 | 10 |
| 57 | Smectic ordering of homogeneous semiflexible polymers. Physical Review E, 2005, 71, 041804. | 2.1 | 24 |
| 58 | Size dependency of tension strength in natural fiber composites. Physica A: Statistical Mechanics and Its Applications, 2003, 325, 547-560. | 2.6 | 30 |
| 59 | Time evolution of damage under variable ranges of load transfer. Physical Review E, 2003, 68, 026116. | 2.1 | 21 |
| 60 | Scaling laws of creep rupture of fiber bundles. Physical Review E, 2003, 67, 061802. | 2.1 | 34 |
| 61 | Creep rupture has two universality classes. Europhysics Letters, 2003, 63, 347-353. | 2.0 | 48 |
| 62 | Creep rupture of viscoelastic fiber bundles. Physical Review E, 2002, 65, 032502. | 2.1 | 54 |
| 63 | Evolution of Percolating Force Chains in Compressed Granular Media. Physical Review Letters, 2002, 89, 205501. | 7.8 | 71 |
| 64 | Fracture model with variable range of interaction. Physical Review E, 2002, 65, 046148. | 2.1 | 119 |
| 65 | Bursts in a fiber bundle model with continuous damage. Physical Review E, 2001, 64, 066122. | 2.1 | 72 |
| 66 | 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 |