James E Hilton

List of Publications by Year
in descending order

56 papers	1,514 citations	304368 22 h-index	329751 37 g-index
56 all docs	56 docs citations	56 times ranked	1647 citing authors

#	Article	IF	Citations
1	Dynamics of gas–solid fluidised beds with non-spherical particle geometry. Chemical Engineering Science, 2010, 65, 1584-1596.	1.9	168
2	The influence of particle shape on flow modes in pneumatic conveying. Chemical Engineering Science, 2011, 66, 231-240.	1.9	122
3	Carotid Artery Anatomy and Geometry as Risk Factors for Carotid Atherosclerotic Disease. Stroke, 2012, 43, 1596-1601.	1.0	104
4	Granular flow during hopper discharge. Physical Review E, 2011, 84, 011307.	0.8	88
5	Defining random loose packing for nonspherical grains. Physical Review E, 2011, 83, 051305.	0.8	68
6	In vivo EPR for dosimetry. Radiation Measurements, 2007, 42, 1075-1084.	0.7	64
7	Modelling of industrial particle and multiphase flows. Powder Technology, 2017, 314, 232-252.	2.1	60
8	Raceway formation in laterally gas-driven particle beds. Chemical Engineering Science, 2012, 80, 306-316.	1.9	54
9	Comparison of non-cohesive resolved and coarse grain DEM models for gas flow through particle beds. Applied Mathematical Modelling, 2014, 38, 4197-4214.	2.2	52
10	Non-universal Voronoi cell shapes in amorphous ellipsoid packs. Europhysics Letters, 2015, 111, 24002.	0.7	47
11	Modelling spray coating using a combined CFD–DEM and spherical harmonic formulation. Chemical Engineering Science, 2013, 99, 141-160.	1.9	46
12	Effects of spatial and temporal variation in environmental conditions on simulation of wildfire spread. Environmental Modelling and Software, 2015, 67, 118-127.	1.9	45
13	Drag force on a spherical intruder in a granular bed at low Froude number. Physical Review E, 2013, 88, 062203.	0.8	39
14	Cloud Computing in natural hazard modeling systems: Current research trends and future directions. International Journal of Disaster Risk Reduction, 2019, 38, 101188.	1.8	37
15	An adjustable linear Halbach array. Journal of Magnetism and Magnetic Materials, 2012, 324, 2051-2056.	1.0	35
16	Dust modelling using a combined CFD and discrete element‰formulation. International Journal for Numerical Methods in Fluids, 2013, 72, 528-549.	0.9	31
17	Design and application of a magnetic field gradient electrode. Electrochemistry Communications, 2007, 9, 155-158.	2.3	30
18	Curvature effects in the dynamic propagation of wildfires. International Journal of Wildland Fire, 2016, 25, 1238.	1.0	26

#	Article	IF	Citations
19	Assessing sea level-rise risks to coastal floodplains in the Kakadu Region, northern Australia, using a tidally driven hydrodynamic model. Marine and Freshwater Research, 2018, 69, 1064.	0.7	26
20	Stick-slip and force chain evolution in a granular bed in response to a grain intruder. Physical Review E, 2014, 89, 042207.	0.8	24
21	Rain-triggered lahar susceptibility using a shallow landslide and surface erosion model. Geomorphology, 2016, 273, 168-177.	1.1	24
22	The Vegetation Structure Perpendicular Index (VSPI): A forest condition index for wildfire predictions. Remote Sensing of Environment, 2019, 224, 167-181.	4.6	24
23	Levitation in paramagnetic liquids. Journal of Magnetism and Magnetic Materials, 2007, 316, 273-276.	1.0	23
24	Incorporating convective feedback in wildfire simulations using pyrogenic potential. Environmental Modelling and Software, 2018, 107, 12-24.	1.9	23
25	SPARK â€" A Bushfire Spread Prediction Tool. IFIP Advances in Information and Communication Technology, 2015, , 262-271.	0.5	21
26	Impact of mechanical thinning on forest carbon, fuel hazard and simulated fire behaviour in Eucalyptus delegatensis forest of south-eastern Australia. Forest Ecology and Management, 2017, 405, 92-100.	1.4	20
27	Workspace: A workflow platform for supporting development and deployment of modelling and simulation. Mathematics and Computers in Simulation, 2020, 175, 25-61.	2.4	14
28	Computer Modeling of Anterior Circulation Stroke: Proof of Concept in Cerebrovascular Occlusion. Frontiers in Neurology, 2014, 5, 176.	1.1	13
29	A cloud-based framework for sensitivity analysis of natural hazard models. Environmental Modelling and Software, 2020, 134, 104800.	1.9	13
30	Investigation of the effects of interactions of intersecting oblique fire lines with and without wind in a combustion wind tunnel. International Journal of Wildland Fire, 2019, 28, 704.	1.0	12
31	Halbach Cylinders With Improved Field Homogeneity and Tailored Gradient Fields. IEEE Transactions on Magnetics, 2007, 43, 1898-1902.	1.2	11
32	Radiant heat flux modelling for wildfires. Mathematics and Computers in Simulation, 2020, 175, 62-80.	2.4	10
33	River reconstruction using a conformal mapping method. Environmental Modelling and Software, 2019, 119, 197-213.	1.9	9
34	Effect of fuel spatial resolution on predictive wildfire models. International Journal of Wildland Fire, 2021, 30, 776-789.	1.0	9
35	Dynamics of charged hemispherical soap bubbles. Europhysics Letters, 2009, 86, 24003.	0.7	8
36	The effect of rotational shear on granular discharge rates. Physics of Fluids, 2010, 22, 071701.	1.6	8

#	Article	IF	Citations
37	Does the principle of minimum work apply at the carotid bifurcation: a retrospective cohort study. BMC Medical Imaging, 2011, 11, 17.	1.4	8
38	An efficient framework for ensemble of natural disaster simulations as a service. Geoscience Frontiers, 2020, 11, 1859-1873.	4.3	8
39	Effect of weather forecast errors on fire growth model projections. International Journal of Wildland Fire, 2020, 29, 983.	1.0	8
40	Modeling Vorticity-Driven Wildfire Behavior Using Near-Field Techniques. Frontiers in Mechanical Engineering, 2020, 5, .	0.8	8
41	Anterior Cerebral Artery Stroke: Role of Collateral Systems on Infarct Topography. Stroke, 2021, 52, 2930-2938.	1.0	8
42	Global sensitivity analysis for uncertainty quantification in fire spread models. Environmental Modelling and Software, 2021, 143, 105110.	1.9	8
43	A Surrogate Model for Rapidly Assessing the Size of a Wildfire over Time. Fire, 2021, 4, 20.	1.2	7
44	Computer Modeling of Clot Retrieval—Circle of Willis. Frontiers in Neurology, 2020, 11, 773.	1.1	6
45	RADAR-Vegetation Structural Perpendicular Index (R-VSPI) for the Quantification of Wildfire Impact and Post-Fire Vegetation Recovery. Remote Sensing, 2022, 14, 3132.	1.8	6
46	A power series formulation for two-dimensional wildfire shapes. International Journal of Wildland Fire, 2016, 25, 970.	1.0	5
47	SparkCloud: A Cloud-Based Elastic Bushfire Simulation Service. Remote Sensing, 2018, 10, 74.	1.8	5
48	An evidence based approach to evaluating flood adaptation effectiveness including climate change considerations for coastal cities: City of Port Phillip, Victoria, Australia. Journal of Flood Risk Management, 2020, 13, .	1.6	5
49	Rapid wind–terrain correction for wildfire simulations. International Journal of Wildland Fire, 2021, 30, 410.	1.0	5
50	A MULTISCALE METHOD FOR GEOPHYSICAL FLOW EVENTS. International Journal for Multiscale Computational Engineering, 2012, 10, 375-390.	0.8	5
51	A probability-based risk metric for operational wildfire risk management. Environmental Modelling and Software, 2022, 148, 105286.	1.9	4
52	Unitary stick-slip motion in granular beds. , 2013, , .		3
53	Coupled gas-particulate discharge from a bucket elevator. Powder Technology, 2017, 314, 203-217.	2.1	3
54	The Vegetation Structure Perpendicular Index for Wildfire Severity and Forest Recovery Monitoring. , 2018, , .		3

#	Article	IF	Citations
55	The role of inter-grain friction in determining the mechanical and structural properties of superellipsoid packings. , 2013, , .		1
56	Estimation of Forest Structure with the Vegetation Structure Perpendicular Index (VSPI) for Dynamic Fire Spread Simulations. , 2019, , .		0