

James M Hill

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/9394734/publications.pdf>

Version: 2024-02-01

113
papers

1,680
citations

361296

20
h-index

345118

36
g-index

115
all docs

115
docs citations

115
times ranked

968
citing authors

#	ARTICLE	IF	CITATIONS
1	Mechanics of atoms and fullerenes in single-walled carbon nanotubes. I. Acceptance and suction energies. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2007, 463, 461-477.	1.0	162
2	Mechanics of atoms and fullerenes in single-walled carbon nanotubes. II. Oscillatory behaviour. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2007, 463, 477-494.	1.0	128
3	Modelling the encapsulation of the anticancer drug cisplatin into carbon nanotubes. Nanotechnology, 2007, 18, 275704.	1.3	97
4	Determination of nanolayer thickness for a nanofluid. International Communications in Heat and Mass Transfer, 2007, 34, 399-407.	2.9	79
5	Force distribution for double-walled carbon nanotubes and gigahertz oscillators. Zeitschrift Fur Angewandte Mathematik Und Physik, 2007, 58, 857-875.	0.7	61
6	Orbiting atoms and C60 fullerenes inside carbon nanotube. Journal of Applied Physics, 2007, 101, 064319.	1.1	56
7	Exact and approximate geometric parameters for carbon nanotubes incorporating curvature. Carbon, 2007, 45, 1453-1462.	5.4	55
8	Oscillating carbon nanotube along carbon nanotubes. Physical Review B, 2007, 75, .	1.1	44
9	Einstein's special relativity beyond the speed of light. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2012, 468, 4174-4192.	1.0	41
10	Flow around nanospheres and nanocylinders. Quarterly Journal of Mechanics and Applied Mathematics, 2006, 59, 191-210.	0.5	39
11	Continuous versus discrete for interacting carbon nanostructures. Journal of Physics A: Mathematical and Theoretical, 2007, 40, 3851-3868.	0.7	39
12	Instability of C60 fullerene interacting with lipid bilayer. Journal of Molecular Modeling, 2012, 18, 549-557.	0.8	32
13	Encapsulation of C_{60} fullerenes into single-walled carbon nanotubes: Fundamental mechanical principles and conventional applied mathematical modeling. Physical Review B, 2007, 76, .	1.1	30
14	Some similarity temperature profiles for the microwave heating of a half-space. Journal of the Australian Mathematical Society Series B Applied Mathematics, 1992, 33, 290-320.	0.3	27
15	Encapsulation of methane molecules into carbon nanotubes. Physica B: Condensed Matter, 2011, 406, 88-93.	1.3	26
16	Oscillation of nested fullerenes (carbon onions) in carbon nanotubes. Journal of Nanoparticle Research, 2008, 10, 665-677.	0.8	23
17	Geometric structure of ultra-small carbon nanotubes. Carbon, 2008, 46, 711-713.	5.4	23
18	Analysis of flux flow and the formation of oscillation marks in the continuous caster. Journal of Engineering Mathematics, 1999, 36, 311-326.	0.6	22

#	ARTICLE	IF	CITATIONS
19	Nanotube bundle oscillators: Carbon and boron nitride nanostructures. <i>Physica B: Condensed Matter</i> , 2009, 404, 3906-3910.	1.3	22
20	Adsorption of polycyclic aromatic hydrocarbons on graphite surfaces. <i>Computational Materials Science</i> , 2010, 49, S307-S312.	1.4	22
21	New Carbon Molecules in the Form of Elbow-Connected Nanotori. <i>Journal of Physical Chemistry C</i> , 2007, 111, 10855-10860.	1.5	21
22	Electric field-induced force between two identical uncharged spheres. <i>Applied Physics Letters</i> , 2006, 88, 152903.	1.5	20
23	Carbon nanotori as traps for atoms and ions. <i>Physica B: Condensed Matter</i> , 2012, 407, 3479-3483.	1.3	20
24	Mechanics of fullerenes oscillating in carbon nanotube bundles. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2007, 40, 13197-13208.	0.7	19
25	Cylindrical cavities and classical rat-hole theory occurring in bulk materials. <i>International Journal for Numerical and Analytical Methods in Geomechanics</i> , 2000, 24, 971-990.	1.7	18
26	Micro/nano thermal boundary layer equations with slip creep jump boundary conditions. <i>IMA Journal of Applied Mathematics</i> , 2007, 72, 894-911.	0.8	18
27	Mechanics of spheroidal fullerenes and carbon nanotubes for drug and gene delivery. <i>Quarterly Journal of Mechanics and Applied Mathematics</i> , 2007, 60, 231-253.	0.5	18
28	On the derivation of first integrals for similarity solutions. <i>Journal of Engineering Mathematics</i> , 1991, 25, 287-299.	0.6	16
29	Non-dilatant double-shearing theory applied to granular funnel-flow in hoppers. <i>Journal of Engineering Mathematics</i> , 2001, 41, 55-73.	0.6	16
30	Equilibrium locations for nested carbon nanocones. <i>Journal of Mathematical Chemistry</i> , 2008, 43, 1489-1504.	0.7	16
31	A Review of Geometry, Construction and Modelling for Carbon Nanotori. <i>Applied Sciences (Switzerland)</i> , 2019, 9, 2301.	1.3	15
32	Some exact velocity profiles for granular flow in converging hoppers. <i>Zeitschrift Fur Angewandte Mathematik Und Physik</i> , 2005, 56, 92-106.	0.7	14
33	Orientation of a benzene molecule inside a carbon nanotube. <i>Journal of Mathematical Chemistry</i> , 2011, 49, 1115-1127.	0.7	14
34	Some further comments on special relativity and dark energy. <i>Zeitschrift Fur Angewandte Mathematik Und Physik</i> , 2019, 70, 1.	0.7	14
35	The Stefan problem in nonlinear heat conduction. <i>Zeitschrift Fur Angewandte Mathematik Und Physik</i> , 1986, 37, 206-229.	0.7	13
36	A novel finite element method for heat transfer in the continuous caster. <i>Journal of the Australian Mathematical Society Series B Applied Mathematics</i> , 1994, 35, 263-288.	0.3	13

#	ARTICLE	IF	CITATIONS
37	Micro/nano sliding plate problem with Navier boundary condition. Zeitschrift Fur Angewandte Mathematik Und Physik, 2006, 57, 875-903.	0.7	13
38	On the formal origins of dark energy. Zeitschrift Fur Angewandte Mathematik Und Physik, 2018, 69, 1.	0.7	13
39	A discrete random walk model for diffusion in media with double diffusivity. Journal of the Australian Mathematical Society Series B Applied Mathematics, 1980, 22, 58-74.	0.3	12
40	Lubrication analysis of the viscous micro/nano pump with slip. Microfluidics and Nanofluidics, 2008, 4, 439-449.	1.0	12
41	Stress profiles for tapered cylindrical cavities in granular media. International Journal of Solids and Structures, 2001, 38, 3795-3811.	1.3	11
42	Zigzag and spiral configurations for fullerenes in carbon nanotubes. Journal of Physics A: Mathematical and Theoretical, 2007, 40, 7543-7556.	0.7	11
43	Toroidal molecules formed from three distinct carbon nanotubes. Journal of Mathematical Chemistry, 2008, 44, 515-527.	0.7	11
44	Special relativity, de Broglie waves, dark energy and quantum mechanics. Zeitschrift Fur Angewandte Mathematik Und Physik, 2019, 70, 1.	0.7	11
45	On three simple experiments to determine slip lengths. Microfluidics and Nanofluidics, 2009, 6, 611-619.	1.0	10
46	Modelling the interaction in a benzene dimer. Philosophical Magazine, 2010, 90, 1771-1785.	0.7	10
47	DNA adsorption on graphene. European Physical Journal D, 2013, 67, 1.	0.6	10
48	Electrostatic force between coated conducting spheres with applications to electrorheological nanofluids. Journal of Electrostatics, 2007, 65, 680-688.	1.0	9
49	Encapsulation of the anticancer drug cisplatin into nanotubes. , 2008, , .		9
50	Discrete and Continuous Approximations for Nanobuds. Fullerenes Nanotubes and Carbon Nanostructures, 2010, 18, 160-177.	1.0	9
51	Carbon nanotori and nanotubes encapsulating carbon atomic-chains. Journal of Mathematical Chemistry, 2014, 52, 1817-1830.	0.7	9
52	A review of de Broglie particleâ€“wave mechanical systems. Mathematics and Mechanics of Solids, 2020, 25, 1763-1777.	1.5	9
53	Encapsulation of L-Histidine Amino Acid Inside Single-Walled Carbon Nanotubes. Journal of Biomaterials and Tissue Engineering, 2016, 6, 362-369.	0.0	9
54	Silicon nanotubes with distinct bond lengths. Journal of Mathematical Chemistry, 2010, 47, 569-589.	0.7	8

#	ARTICLE	IF	CITATIONS
55	Nonlinear Plane Waves in Finite Deformable Infinite Mooney Elastic Materials. Journal of Elasticity, 2002, 67, 71-80.	0.9	7
56	New stress and velocity fields for highly frictional granular materials. IMA Journal of Applied Mathematics, 2004, 70, 92-118.	0.8	7
57	Perturbation solutions for highly frictional granular media. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2005, 461, 21-42.	1.0	7
58	General Model for Molecular Interactions in a Benzene Dimer. Mathematics and Mechanics of Solids, 2010, 15, 782-799.	1.5	7
59	Four states of matter and centrally symmetric de Broglie particle-wave mechanical systems. Mathematics and Mechanics of Solids, 2021, 26, 263-284.	1.5	7
60	A mechanical model for dark matter and dark energy. Zeitschrift Fur Angewandte Mathematik Und Physik, 2021, 72, 1.	0.7	7
61	Generalized shear deformations for isotropic incompressible hyperelastic materials. Journal of the Australian Mathematical Society Series B Applied Mathematics, 1977, 20, 129-141.	0.3	6
62	THE PRESSURE DISTRIBUTION FOR SYMMETRICAL CONTACT OF CIRCULAR ELASTIC CYLINDERS. Quarterly Journal of Mechanics and Applied Mathematics, 1989, 42, 581-604.	0.5	6
63	Stress distributions in highly frictional granular heaps. Zeitschrift Fur Angewandte Mathematik Und Physik, 2004, 55, 330-356.	0.7	6
64	Maximising the electrorheological effect for bidisperse nanofluids from the electrostatic force between two particles. Rheologica Acta, 2006, 45, 909-917.	1.1	6
65	Effect of slip on the linear stability of flow through a tube. Zeitschrift Fur Angewandte Mathematik Und Physik, 2008, 59, 360-379.	0.7	6
66	Interaction energy for a fullerene encapsulated in a carbon nanotorus. Zeitschrift Fur Angewandte Mathematik Und Physik, 2018, 69, 1.	0.7	6
67	On pseudo-plane deformations for the neo-Hookean material. Zeitschrift Fur Angewandte Mathematik Und Physik, 1986, 37, 104-113.	0.7	5
68	Asymptotic analysis of the viscous micro/nano pump at low Reynolds number. Journal of Engineering Mathematics, 2009, 63, 279-292.	0.6	5
69	Electronic properties of carbon nanotubes with distinct bond lengths. Journal of Applied Physics, 2010, 107, 023511.	1.1	5
70	Carbon Nanocones with Curvature Effects Close to the Vertex. Nanomaterials, 2018, 8, 624.	1.9	5
71	Continuum Modelling for Interacting Coronene Molecules with a Carbon Nanotube. Nanomaterials, 2020, 10, 152.	1.9	5
72	Bagnold velocity profile for steady-state dense granular chute flow with base slip. Rheologica Acta, 2022, 61, 207-214.	1.1	5

#	ARTICLE	IF	CITATIONS
73	On an analogy between plane finite elastic deformations and certain magnetohydrodynamic flows. <i>Zeitschrift Fur Angewandte Mathematik Und Physik</i> , 1984, 35, 24-33.	0.7	4
74	The symmetrical adhesive contact problem for circular elastic cylinders. <i>Journal of Elasticity</i> , 1992, 27, 1-36.	0.9	4
75	On an infinite integral arising in the numerical integration of stochastic differential equations. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2005, 461, 397-413.	1.0	4
76	Mechanics of nanoscale orbiting systems. <i>Journal of Mathematical Chemistry</i> , 2009, 46, 1271-1291.	0.7	4
77	Generalized transformations and coordinates for static spherically symmetric general relativity. <i>Royal Society Open Science</i> , 2018, 5, 171109.	1.1	4
78	Equilibrium location for spherical DNA and toroidal cyclodextrin. <i>Applied Nanoscience (Switzerland)</i> , 2018, 8, 537-544.	1.6	4
79	Modeling Interactions between Graphene and Heterogeneous Molecules. <i>Computation</i> , 2020, 8, 107.	1.0	4
80	Load-deflection relations of long cylindrical rubber bush mountings constructed from rectangular blocks. <i>Journal of Applied Polymer Science</i> , 1977, 21, 1459-1467.	1.3	3
81	Reduced equilibrium equations for perfectly elastic materials. <i>Journal of Elasticity</i> , 1982, 12, 153-158.	0.9	3
82	On the problem of uncoupling systems of linear differential equations. <i>Journal of the Australian Mathematical Society Series B Applied Mathematics</i> , 1989, 30, 483-501.	0.3	3
83	The combined compression and shear of a rectangular rubber block. <i>Zeitschrift Fur Angewandte Mathematik Und Physik</i> , 1992, 43, 911-923.	0.7	3
84	Finite elastic non-symmetrical inflation and eversion of circular cylindrical rubber tubes. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 1999, 455, 1067-1082.	1.0	3
85	Force Distribution for Double-Walled Carbon Nanotubes. , 2006, , .		3
86	Asymptotic Axially Symmetric Deformations for Perfectly Elastic Neo-Hookean and Mooney Materials. <i>Journal of Elasticity</i> , 2007, 86, 113-137.	0.9	3
87	A carbon atom orbiting around the outside of a carbon nanotube. , 2008, , .		3
88	The effect of non-covalent functionalization on the interaction energy of carbon nanotubes. <i>Journal of Physics Communications</i> , 2019, 3, 035018.	0.5	3
89	On the general random walk formulation for diffusion in media with Diffusivities. <i>Journal of the Australian Mathematical Society Series B Applied Mathematics</i> , 1985, 27, 73-87.	0.3	2
90	On Dankwerts' transformation for two variable coupled systems. <i>Bulletin of the Australian Mathematical Society</i> , 1990, 41, 355-369.	0.3	2

#	ARTICLE	IF	CITATIONS
91	Title is missing!. Journal of Elasticity, 1999, 54, 193-212.	0.9	2
92	Symmetry analysis for uniaxial compression of a hypoplastic granular material. Zeitschrift Fur Angewandte Mathematik Und Physik, 2005, 56, 1061-1083.	0.7	2
93	Joining a carbon nanotube and a graphene sheet. , 2008, , .		2
94	Carbon molecules oscillating in carbon nanotube bundles. , 2008, , .		2
95	Polyhedral model for boron nitride nanotubes. , 2009, , .		2
96	Generalised Einstein mass-variation formulae: I Subluminal relative frame velocities. Results in Physics, 2016, 6, 112-121.	2.0	2
97	Optimal configurations for interacting carbon nanotube. Applied Nanoscience (Switzerland), 2019, 9, 225-232.	1.6	2
98	Curve Fitting, Differential Equations And The Riemann Hypothesis. Ramanujan Journal, 2005, 9, 357-372.	0.4	1
99	Modelling the Induced Force of Attraction in Electrorheological Nanofluids. , 2006, , .		1
100	Laplace transforms and the Riemann zeta function. Integral Transforms and Special Functions, 2007, 18, 193-205.	0.8	1
101	Composite Multiwalled Carbon Nanotubes as Memory Devices and Logic Gates. Journal of Nanotechnology in Engineering and Medicine, 2012, 3, .	0.8	1
102	Steady-state similarity velocity profiles for dense granular flow down inclined chutes. Granular Matter, 2021, 23, 1.	1.1	1
103	Interacting Ru(bpy) 3^+ ; Dye Molecules and TiO ₂ Semiconductor in Dye-Sensitized Solar Cells. Mathematics, 2020, 8, 841.	1.1	1
104	Elastic and Particulate Media. Journal of the Engineering Mechanics Division, 1982, 108, 596-604.	0.4	1
105	Ferric Ion Diffusion for MOF-Polymer Composite with Internal Boundary Sinks. Nanomaterials, 2022, 12, 887.	1.9	1
106	Einstein's energy and space isotropy. Zeitschrift Fur Angewandte Mathematik Und Physik, 2022, 73, 1.	0.7	1
107	A two-stage heat transfer model for the peripheral layers of a grain store. Journal of Applied Mathematics and Decision Sciences, 2003, 7, 147-164.	0.4	0
108	Mathematical Modelling for a C ₆₀ / Carbon Nanotube Oscillator. , 2006, , .		0

#	ARTICLE	IF	CITATIONS
109	Mathematical Modelling of Nanoparticle Melting. , 2006, , .		0
110	Orbiting Buckyballs Inside Nanotori. , 2006, , .		0
111	Mathematical modelling for nanotube bundle oscillators. , 2009, , .		0
112	Modelling hydrogen adsorption within spherical, cylindrical and slit-shaped cavities. , 2009, , .		0
113	DESIGN OF A NANOTORI-METALLOFULLERENE LOGIC GATE. ANZIAM Journal, 2015, 57, 29-42.	0.3	0