Mehrdad Massoudi

List of Publications by Year in Descending Order

131 papers	1,981 citations	24 h-index	39 g-index
142 ext. papers	2,217 ext. citations	2.9 avg, IF	5.54 L-index

#	Paper	IF	Citations
131	A Brief Review of Gas Migration in Oilwell Cement Slurries. *Energies*, **2021**, 14, 2369	3.1	8
130	Influence of shear rate and surface chemistry on thrombus formation in micro-crevice. *Journal of Biomechanics*, **2021**, 121, 110397	2.9	1
129	Using CO2 as a Cooling Fluid for Power Plants: A Novel Approach for CO2 Storage and Utilization. *Applied Sciences (Switzerland)*, **2021**, 11, 4974	2.6	1
128	Pulsating Poiseuille flow of a cement slurry. *International Journal of Non-Linear Mechanics*, **2021**, 133, 103717	2.8	2
127	A Continuum Model for the Unfolding of von Willebrand Factor. *Annals of Biomedical Engineering*, **2021**, 49, 2646-2658	4.7	4
126	Pumping gaseous CO2 into a high-pressure, constant-volume storage cylinder: A thermodynamics analysis. *Journal of Energy Storage*, **2021**, 40, 102706	7.8	1
125	Numerical Simulations of the Flow of a Dense Suspension Exhibiting Yield-Stress and Shear-Thinning Effects. *Energies*, **2020**, 13, 6635	3.1	0
124	The Heat Flux Vector(s) in a Two Component Fluid Mixture. *Fluids*, **2020**, 5, 77	1.6	0
123	Effects of Temperature on the Flow and Heat Transfer in Gel Fuels: A Numerical Study. *Energies*, **2020**, 13, 821	3.1	4
122	A Review of Rheological Modeling of Cement Slurry in Oil Well Applications. *Energies*, **2020**, 13, 570	3.1	27
121	A Study of Temperature Distribution and Thermal Stresses in a Hot Rock Due to Rapid Cooling. *Journal of Heat Transfer*, **2020**, 142,	1.8	1
120	Simulation of thrombosis in a stenotic microchannel: The effects of vWF-enhanced shear activation of platelets. *International Journal of Engineering Science*, **2020**, 147,	5.7	7
119	Simulation of blood flow in a sudden expansion channel and a coronary artery. *Journal of Computational and Applied Mathematics*, **2020**, 376,	2.4	6
118	Heat losses associated with the upward flow of air, water, CO2 in geothermal production wells. *International Journal of Heat and Mass Transfer*, **2019**, 132, 249-258	4.9	8
117	Surfactant stabilized bubbles flowing in a Newtonian fluid. *Mathematics and Mechanics of Solids*, **2019**, 24, 3823-3842	2.3	2
116	Flow Characteristics of Water-HPC Gel in Converging Tubes and Tapered Injectors. *Energies*, **2019**, 12, 1643	3.1	4
115	Effects of Polydispersity on Structuring and Rheology in Flowing Suspensions. *Journal of Applied Mechanics, Transactions ASME*, **2019**, 86,	2.7	2

114	The effects of particle concentration and various fluxes on the flow of a fluid-solid suspension. *Applied Mathematics and Computation*, **2019**, 358, 151-160	2.7	2
113	Effects of shear-dependent viscosity and hematocrit on blood flow. *Applied Mathematics and Computation*, **2019**, 356, 299-311	2.7	10
112	Finite Element Simulations of an Elasto-Viscoplastic Model for Clay. *Geosciences (Switzerland)*, **2019**, 9, 145	2.7	4
111	Steady Flow of a Cement Slurry. *Energies*, **2019**, 12, 2604	3.1	15
110	Natural Convection in a Non-Newtonian Fluid: Effects of Particle Concentration. *Fluids*, **2019**, 4, 192	1.6	3
109	The Influence of Bubbles on Foamed Cement Viscosity Using an Extended Stokesian Dynamics Approach. *Fluids*, **2019**, 4, 166	1.6	2
108	A non-linear fluid suspension model for blood flow. *International Journal of Non-Linear Mechanics*, **2019**, 109, 32-39	2.8	5
107	Natural convection and anisotropic heat transfer in a ferro-nanofluid under magnetic field. *International Journal of Heat and Mass Transfer*, **2019**, 133, 581-595	4.9	22
106	Conduction and convection heat transfer in a dense granular suspension. *Applied Mathematics and Computation*, **2018**, 332, 351-362	2.7	2
105	Numerical Simulation of Nanofluid Suspensions in a Geothermal Heat Exchanger. *Energies*, **2018**, 11, 919	3.1	18
104	Characteristics of optimization algorithms applied to the electrode design of a magnetohydrodynamic micromixer. *Journal of Mechanical Science and Technology*, **2018**, 32, 3667-3675	1.6	
103	Exergy of air, CO2, and H2O for use as geothermal fluids. *International Journal of Heat and Mass Transfer*, **2018**, 126, 448-456	4.9	7
102	Simplicity and Sustainability: Pointers from Ethics and Science. *Sustainability*, **2018**, 10, 1303	3.6	2
101	Flow of a Dense Suspension Modeled as a Modified Second Grade Fluid. *Fluids*, **2018**, 3, 55	1.6	2
100	Magneto-hydrodynamics-driven mixing of a reagent and a phosphate-buffered solution: A computational study. *Applied Mathematics and Computation*, **2017**, 298, 261-271	2.7	4
99	Flow of a fluid-solid mixture: Normal stress differences and slip boundary condition. *International Journal of Non-Linear Mechanics*, **2017**, 90, 39-49	2.8	3
98	Multi-Constituent Simulation of Thrombus Deposition. *Scientific Reports*, **2017**, 7, 42720	4.9	38
97	Heat transfer and flow of a dense suspension between two cylinders. *International Journal of Heat and Mass Transfer*, **2017**, 112, 597-606	4.9	9

96	Transport of platelets induced by red blood cells based on mixture theory. *International Journal of Engineering Science*, **2017**, 118, 16-27	5.7	15
95	Normal stress effects in the gravity driven flow of granular materials. *International Journal of Non-Linear Mechanics*, **2017**, 92, 84-91	2.8	6
94	Flow of blood in micro-channels: recent results based on mixture theory. *International Journal of Advances in Engineering Sciences and Applied Mathematics*, **2017**, 9, 40-50	0.6	2
93	Numerical Simulation of Red Blood Cell-Induced Platelet Transport in Saccular Aneurysms. *Applied Sciences (Switzerland)*, **2017**, 7, 484	2.6	10
92	Entropy Analysis for a Nonlinear Fluid with a Nonlinear Heat Flux Vector. *Entropy*, **2017**, 19, 689	2.8	2
91	Heat Transfer and Flow of Nanofluids in a Y-Type Intersection Channel with Multiple Pulsations: A Numerical Study. *Energies*, **2017**, 10, 492	3.1	7
90	Effects of Anisotropic Thermal Conductivity and Lorentz Force on the Flow and Heat Transfer of a Ferro-Nanofluid in a Magnetic Field. *Energies*, **2017**, 10, 1065	3.1	13
89	Heat Transfer in a Drilling Fluid with Geothermal Applications. *Energies*, **2017**, 10, 1349	3.1	6
88	Computational study of blood flow in microchannels. *Journal of Computational and Applied Mathematics*, **2016**, 292, 174-187	2.4	10
87	Design of microfluidic channels for magnetic separation of malaria-infected red blood cells. *Microfluidics and Nanofluidics*, **2016**, 20, 1	2.8	17
86	Fully developed flow of a drilling fluid between two rotating cylinders. *Applied Mathematics and Computation*, **2016**, 281, 266-277	2.7	16
85	The Couette-Poiseuille flow of a suspension modeled as a modified third-grade fluid. *Archive of Applied Mechanics*, **2016**, 86, 921-932	2.2	4
84	A Possible Ethical Imperative Based on the Entropy Law. *Entropy*, **2016**, 18, 389	2.8	2
83	On the Heat Flux Vector and Thermal Conductivity of Slags: A Brief Review. *Energies*, **2016**, 9, 27	3.1	5
82	Heat Transfer and Dissipation Effects in the Flow of a Drilling Fluid. *Fluids*, **2016**, 1, 4	1.6	16
81	On Thermomechanics of a Nonlinear Heat Conducting Suspension. *Fluids*, **2016**, 1, 19	1.6	4
80	Laser-Induced Motion of a Nanofluid in a Micro-Channel. *Fluids*, **2016**, 1, 35	1.6	1
79	High fidelity computational simulation of thrombus formation in Thoratec HeartMate II continuous flow ventricular assist device. *Scientific Reports*, **2016**, 6, 38025	4.9	34

78	Study of blood flow in several benchmark micro-channels using a two-fluid approach. *International Journal of Engineering Science*, **2015**, 95, 49-59	5.7	28
77	Chemical-Looping Combustion and Gasification of Coals and Oxygen Carrier Development: A Brief Review. *Energies*, **2015**, 8, 10605-10635	3.1	61
76	Effects of Shear Dependent Viscosity and Variable Thermal Conductivity on the Flow and Heat Transfer in a Slurry. *Energies*, **2015**, 8, 11546-11574	3.1	8
75	Heat transfer analysis and flow of a slag-type fluid: Effects of variable thermal conductivity and viscosity. *International Journal of Non-Linear Mechanics*, **2015**, 76, 8-19	2.8	18
74	A numerical study of blood flow using mixture theory. *International Journal of Engineering Science*, **2014**, 76, 56-72	5.7	26
73	Heat transfer and flow of a slag-type non-linear fluid: Effects of variable thermal conductivity. *Applied Mathematics and Computation*, **2014**, 227, 77-91	2.7	7
72	On the coefficients of the interaction forces in a two-phase flow of a fluid infused with particles. *International Journal of Non-Linear Mechanics*, **2014**, 59, 76-82	2.8	16
71	Falling film flow of a viscoelastic fluid along a wall. *Mathematical Methods in the Applied Sciences*, **2014**, 37, 2840-2853	2.3	6
70	Flow of granular materials with slip boundary condition: A continuum–kinetic theory approach. *Applied Mathematics and Computation*, **2014**, 242, 518-527	2.7	4
69	Flow of granular materials modeled as a non-linear fluid. *Mechanics Research Communications*, **2013**, 52, 62-68	2.2	11
68	Channel Flow of a Mixture of Granular Materials and a Fluid **2013**,		2
67	Slag Behavior in Gasifiers. Part II: Constitutive Modeling of Slag. *Energies*, **2013**, 6, 807-838	3.1	26
66	Slag Behavior in Gasifiers. Part I: Influence of Coal Properties and Gasification Conditions. *Energies*, **2013**, 6, 784-806	3.1	96
65	Heat transfer in granular materials: effects of nonlinear heat conduction and viscous dissipation. *Mathematical Methods in the Applied Sciences*, **2013**, 36, 1947-1964	2.3	8
64	Modeling and numerical simulation of blood flow using the Theory of Interacting Continua. *International Journal of Non-Linear Mechanics*, **2012**, 47, 506-520	2.8	21
63	Chemically-reacting fluids with variable transport properties. *Applied Mathematics and Computation*, **2012**, 219, 1761-1775	2.7	8
62	Flow of Granular Materials Modeled as a Generalized Reiner-Rivlin Type Fluid **2012**,		1
61	Analytical solutions to Stokes-type flows of inhomogeneous fluids. *Applied Mathematics and Computation*, **2012**, 218, 6314-6329	2.7	10

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60	Removal of malaria-infected red blood cells using magnetic cell separators: A computational study. *Applied Mathematics and Computation*, **2012**, 218, 6841-6850	2.7	25
59	Numerical Study of a Non-Linear Model for the Heat Flux Vector for Granular Materials **2012**,		1
58	Remarks on Constitutive Modeling of Nanofluids. *Advances in Mechanical Engineering*, **2012**, 4, 927580	1.2	6
57	Viscosity and thermal conductivity of nanofluids containing multi-walled carbon nanotubes stabilized by chitosan. *International Journal of Thermal Sciences*, **2011**, 50, 12-18	4.1	247
56	Implicit constitutive relations in thermoelasticity. *International Journal of Non-Linear Mechanics*, **2011**, 46, 286-290	2.8	2
55	Unsteady flows of inhomogeneous incompressible fluids. *International Journal of Non-Linear Mechanics*, **2011**, 46, 738-741	2.8	15
54	A generalization of Reiner's mathematical model for wet sand. *Mechanics Research Communications* , **2011**, 38, 378-381	2.2	13
53	Implicit Continuum Mechanics Approach to Heat Conduction in Granular Materials. *Industrial & Engineering Chemistry Research*, **2010**, 49, 5215-5221	3.9	2
52	On the thermodynamics of some generalized second-grade fluids. *Continuum Mechanics and Thermodynamics*, **2010**, 22, 27-46	3.5	11
51	Us and Them: Religious Education and the Role of Proper Communication in Conflict Prevention. *Interchange*, **2010**, 41, 285-304	0.6	
50	A Mixture Theory formulation for hydraulic or pneumatic transport of solid particles. *International Journal of Engineering Science*, **2010**, 48, 1440-1461	5.7	46
49	On the Representation of Turbulent Stresses for Computing Blood Damage. *International Journal of Engineering Science*, **2010**, 48, 1325-1331	5.7	34
48	Mathematical Modelling of Granular Materials **2010**, 219-245		2
47	Convection-Radiation Heat Transfer in a Nonlinear Fluid with Temperature-Dependent Viscosity. *Mathematical Problems in Engineering*, **2009**, 2009, 1-15	1.1	2
46	Heat transfer and Couette flow of a chemically reacting non-linear fluid. *Mathematical Methods in the Applied Sciences*, **2009**, 33, n/a-n/a	2.3	3
45	Experimental observations of the effects of shear rates and particle concentration on the viscosity of Fe2O3-deionized water nanofluids. *International Journal of Thermal Sciences*, **2009**, 48, 1294-1301	4.1	124
44	Unsteady motion of a non-linear viscoelastic fluid. *International Journal of Non-Linear Mechanics*, **2009**, 44, 1063-1072	2.8	4
43	An Anisotropic Constitutive Equation for the Stress Tensor of Blood Based on Mixture Theory. *Mathematical Problems in Engineering*, **2008**, 2008, 1-30	1.1	37

42	Pulsatile flow of blood using a modified second-grade fluid model. *Computers and Mathematics With Applications*, **2008**, 56, 199-211	2.7	46
41	An Enquiry Into the Role and Importance of Ethics in Scientific Research. *Interchange*, **2008**, 39, 443-468	0.6	1
40	Flow of a non-linear (density-gradient-dependent) viscous fluid with heat generation, viscous dissipation and radiation. *Mathematical Methods in the Applied Sciences*, **2008**, 31, 1685-1703	2.3	5
39	Flow of a binary mixture of linearly incompressible viscous fluids between two horizontal parallel plates. *Mechanics Research Communications*, **2008**, 35, 603-608	2.2	3
38	On the motion of a second grade fluid due to longitudinal and torsional oscillations of a cylinder: A numerical study. *Applied Mathematics and Computation*, **2008**, 203, 471-481	2.7	5
37	Natural convection flow of a generalized second grade fluid between two vertical walls. *Nonlinear Analysis: Real World Applications*, **2008**, 9, 80-93	2.1	19
36	On some generalizations of the second grade fluid model. *Nonlinear Analysis: Real World Applications*, **2008**, 9, 1169-1183	2.1	36
35	A note on the meaning of mixture viscosity using the classical continuum theories of mixtures. *International Journal of Engineering Science*, **2008**, 46, 677-689	5.7	44
34	A comparative study of the hypoplasticity and the fabric-dependent dilatant double shearing models for granular materials. *International Journal for Numerical and Analytical Methods in Geomechanics*, **2007**, 31, 735-756	4	3
33	The frictional flow of a dense granular material based on the dilatant double shearing model. *Computers and Mathematics With Applications*, **2007**, 53, 244-259	2.7	19
32	Conduction and dissipation in the shearing flow of granular materials modeled as non-Newtonian fluids. *Powder Technology*, **2007**, 175, 146-162	5.2	13
31	Boundary conditions in mixture theory and in CFD applications of higher order models. *Computers and Mathematics With Applications*, **2007**, 53, 156-167	2.7	22
30	Constitutive modelling of flowing granular materials: A continuum approach **2007**, 63-107		2
29	Three-dimensional constitutive relations for granular materials based on the dilatant double shearing mechanism and the concept of fabric. *International Journal of Plasticity*, **2006**, 22, 826-857	7.6	35
28	On the heat flux vector for flowing granular materials—Part I: effective thermal conductivity and background. *Mathematical Methods in the Applied Sciences*, **2006**, 29, 1585-1598	2.3	34
27	On the heat flux vector for flowing granular materials—Part II: derivation and special cases. *Mathematical Methods in the Applied Sciences*, **2006**, 29, 1599-1613	2.3	29
26	A system theory approach to interfaith dialogue. *Intercultural Education*, **2006**, 17, 421-437	0.9	7
25	Modeling granular materials as compressible nonlinear fluids: Heat transfer boundary value problems. *Mathematical Problems in Engineering*, **2006**, 2006, 1-31	1.1	2

24	Incorporating the effects of fabric in the dilatant double shearing model for planar deformation of granular materials. *International Journal of Plasticity*, **2006**, 22, 628-653	7.6	22
23	Unsteady shear flow of fluids with pressure-dependent viscosity. *International Journal of Engineering Science*, **2006**, 44, 915-926	5.7	11
22	On the heat flux vector in mixtures. *International Communications in Heat and Mass Transfer*, **2005**, 32, 1128-1134	5.8	5
21	Numerical solution to the shearing flow of granular materials between two plates. *International Journal of Non-Linear Mechanics*, **2005**, 40, 1-9	2.8	13
20	Flow of a mixture of a viscous fluid and a granular solid in an orthogonal rheometer. *International Journal of Non-Linear Mechanics*, **2005**, 40, 507-514	2.8	2
19	An anisotropic constitutive relation for the stress tensor of a rod-like (fibrous-type) granular material. *Mathematical Problems in Engineering*, **2005**, 2005, 679-702	1.1	6
18	On the question of authority and the various responses to new ideas: A (possible) buddhist perspective. *Interchange*, **2004**, 35, 447-474	0.6	1
17	Can Scientific Writing Be Creative?. *Journal of Science Education and Technology*, **2003**, 12, 115-128	2.8	12
16	Couette flow of granular materials. *International Journal of Non-Linear Mechanics*, **2003**, 38, 11-20	2.8	7
15	Constitutive relations for the interaction force in multicomponent particulate flows. *International Journal of Non-Linear Mechanics*, **2003**, 38, 313-336	2.8	52
14	Boundary layer flow of a second grade fluid with variable heat flux at the wall. *Applied Mathematics and Computation*, **2003**, 143, 201-212	2.7	4
13	On the importance of material frame-indifference and lift forces in multiphase flows. *Chemical Engineering Science*, **2002**, 57, 3687-3701	4.4	36
12	On the Qualities of a Teacher and a Student: An Eastern perspective based on Buddhism, Vedanta and Sufism. *Intercultural Education*, **2002**, 13, 137-155	0.9	6
11	A continuum–kinetic theory approach to the rapid flow of granular materials: the effects of volume fraction gradient. *International Journal of Non-Linear Mechanics*, **2001**, 36, 637-648	2.8	17
10	Local non-similarity solutions for the flow of a non-Newtonian fluid over a wedge. *International Journal of Non-Linear Mechanics*, **2001**, 36, 961-976	2.8	49
9	On the flow of granular materials with variable material properties. *International Journal of Non-Linear Mechanics*, **2001**, 36, 25-37	2.8	31
8	Vertical flow of a multiphase mixture in a channel. *Mathematical Problems in Engineering*, **2001**, 6, 505-526	1.1	8
7	The effect of slip boundary condition on the flow of granular materials: a continuum approach. *International Journal of Non-Linear Mechanics*, **2000**, 35, 745-761	2.8	12

6	A NUMERICAL STUDY OF THE FLOW OF GRANULAR MATERIALS BETWEEN TWO VERTICAL FLAT PLATES WHICH ARE AT DIFFERENT TEMPERATURES. *Particulate Science and Technology*, **1999**, 17, 149-163	2	2
5	STABILITY OF FLOWS IN FLUIDIZED BEDS. *Particulate Science and Technology*, **1996**, 14, 185-211	2	1
4	Rapid flow of granular materials with density and fluctuation energy gradients. *International Journal of Non-Linear Mechanics*, **1994**, 29, 487-492	2.8	7
3	Modeling of solid particles in fluidized beds. *Mathematical and Computer Modelling*, **1990**, 14, 785-789		2
2	Stability analysis of fluidized beds. *International Journal of Engineering Science*, **1988**, 26, 765-769	5.7	15
1	Generalized mechanics of incompressible multiphase suspensions. *Journal of Micromechanics and Molecular Physics*,1-9	1.4	