Miltiadis Papalexandris

List of Publications by Year
in descending order

53 papers	1,071 citations	430874 18 h-index	434195 31 g-index
53 all docs	53 docs citations	53 times ranked	494 citing authors

#	Article	IF	Citations
1	Time-accurate calculation of variable density flows with strong temperature gradients and combustion. Journal of Computational Physics, 2006, 212, 218-246.	3.8	98
2	A numerical study of wedge-induced detonations. Combustion and Flame, 2000, 120, 526-538.	5.2	92
3	An exact Riemann solver for compressible two-phase flow models containing non-conservative products. Journal of Computational Physics, 2007, 222, 217-245.	3.8	70
4	Numerical simulation of detonations in mixtures of gases and solid particles. Journal of Fluid Mechanics, 2004, 507, 95-142.	3.4	63
5	Computational study of three-dimensional gaseous detonation structures. Combustion and Flame, 2006, 144, 821-837.	5.2	53
6	Direct numerical simulation of triboelectric charging in particle-laden turbulent channel flows. Journal of Fluid Mechanics, 2017, 818, 465-491.	3.4	47
7	Large Eddy simulation of triboelectric charging in pneumatic powder transport. Powder Technology, 2016, 301, 1008-1015.	4.2	45
8	Unsplit Schemes for Hyperbolic Conservation Laws with Source Terms in One Space Dimension. Journal of Computational Physics, 1997, 134, 31-61.	3.8	40
9	Evaluation of the parameters influencing electrostatic charging of powder in a pipe flow. Journal of Loss Prevention in the Process Industries, 2016, 43, 83-91.	3.3	35
10	A model for the non-uniform contact charging of particles. Powder Technology, 2017, 305, 518-527.	4.2	34
11	Numerical study of turbulent channel flow with strong temperature gradients. International Journal of Numerical Methods for Heat and Fluid Flow, 2008, 18, 545-556.	2.8	32
12	A two-phase model for compressible granular flows based on the theory of irreversible processes. Journal of Fluid Mechanics, 2004, 517, 103-112.	3.4	29
13	Influence of inert particles on the propagation of multidimensional detonation waves. Combustion and Flame, 2005, 141, 216-228.	5.2	27
14	Numerical study of the influence of the powder and pipe properties on electrical charging during pneumatic conveying. Powder Technology, 2017, 315, 227-235.	4.2	27
15	Turbulent mixing in T-junctions: The role of the temperature as an active scalar. International Journal of Heat and Mass Transfer, 2017, 115, 793-809.	4.8	26
16	Direct numerical simulation of turbulent heat transfer in a T-junction. Journal of Fluid Mechanics, 2018, 845, 581-614.	3.4	24
17	Low-Mach-number asymptotics for two-phase flows of granular materials. Journal of Fluid Mechanics, 2011, 669, 472-497.	3.4	20
18	A boundary integral equation method for oblique water-wave scattering by cylinders governed by the modified Helmholtz equation. Applied Ocean Research, 2002, 24, 215-233.	4.1	19

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19	Poiseuille flow of dense non-colloidal suspensions: The role of intergranular and nonlocal stresses in particle migration. Journal of Non-Newtonian Fluid Mechanics, 2017, 247, 229-238.	2.4	19
20	On the accuracy of the numerical computation of the electrostatic forces between charged particles. Powder Technology, 2017, 322, 185-194.	4.2	17
21	The effect of electrostatic charges on particle-laden duct flows. Journal of Fluid Mechanics, 2021, 909, .	3.4	17
22	Dynamics of shear layers at the interface of a highly porous medium and a pure fluid. Physics of Fluids, 2015, 27, .	4.0	16
23	Powder electrification during pneumatic transport: The role of the particle properties and flow rates. Journal of Loss Prevention in the Process Industries, 2019, 58, 60-69.	3.3	16
24	A numerical method for two-phase flows of dense granular mixtures. Journal of Computational Physics, 2014, 257, 737-756.	3.8	14
25	A thermo-mechanical model for flows in superposed porous and fluid layers with interphasial heat and mass exchange. International Journal of Heat and Mass Transfer, 2015, 88, 42-54.	4.8	13
26	Numerical study of unsteady, thermally-stratified shear flows in superposed porous and pure-fluid domains. International Journal of Heat and Mass Transfer, 2016, 96, 643-659.	4.8	13
27	A two-phase thermomechanical theory for granular suspensions. Journal of Fluid Mechanics, 2016, 808, 410-440.	3.4	12
28	Assessment of Droplet Breakup Models for Spray Flow Simulations. Flow, Turbulence and Combustion, 2020, 105, 889-914.	2.6	12
29	On the applicability of Stokesâ€™ hypothesis to low-Mach-number flows. Continuum Mechanics and Thermodynamics, 2020, 32, 1245-1249.	2.2	11
30	Modeling the electrostatic charging of a helicopter during hovering in dusty atmosphere. Aerospace Science and Technology, 2017, 64, 31-38.	4.8	10
31	On the well-posedness of the Darcyâ€"Brinkmanâ€"Forchheimer equations for coupled porous media-clear fluid flow. Nonlinearity, 2017, 30, 1449-1464.	1.4	10
32	Numerical study of turbulent flow in a rectangular T-junction. Physics of Fluids, 2017, 29, .	4.0	10
33	Statistical analysis of instantaneous turbulent heat transfer in circular pipe flows. Heat and Mass Transfer, 2014, 50, 125-137.	2.1	9
34	A conservative approximation to compressible two-phase flow models in the stiff mechanical relaxation limit. Journal of Computational Physics, 2008, 227, 9241-9270.	3.8	8
35	Numerical simulations of turbulent thermal convection with a free-slip upper boundary. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2019, 475, 20190601.	2.1	8
36	Attenuation of gaseous detonations by porous media of fine microstructure. Combustion and Flame, 2021, 232, 111518.	5.2	8

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37	Numerical simulation of subaqueous chute flows of granular materials. European Physical Journal E, 2015, 38, 125.	1.6	7
38	Stability analysis of Couette flows of spatially inhomogeneous complex fluids. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2015, 471, 20150529.	2.1	7
39	Evaporation-driven turbulent convection in water pools. Journal of Fluid Mechanics, 2020, 904, .	3.4	7
40	Bridging the gap between the Darcy-Brinkman equations and the Nielsen model for tortuosity in polymer-filled systems. Chemical Engineering Science, 2020, 213, 115394.	3.8	6
41	Existence of solutions to a continuum model for hydrostatics of fluid-saturated granular materials. Applied Mathematics Letters, 2014, 35, 77-81.	2.7	5
42	Active control and parameter updating techniques for nonlinear thermal network models. Computational Mechanics, 2001, 27, 11-22.	4.0	4
43	Stability of wall bounded, shear flows of dense granular materials: the role of the Couette gap, the wall velocity and the initial concentration. Journal of Fluid Mechanics, 2016, 791, 384-413.	3.4	4
44	Influence of the Rotor Configuration on the Electrostatic Charging of Helicopters. AIAA Journal, 2018, 56, 368-375.	2.6	4
45	Time-accurate calculation of two-phase granular flows exhibiting compaction, dilatancy and nonlinear rheology. Journal of Computational Physics, 2018, 372, 799-822.	3.8	4
46	On the dynamics of the large scale circulation in turbulent convection with a free-slip upper boundary. International Journal of Heat and Mass Transfer, 2022, 183, 122220.	4.8	4
47	Large-Eddy Simulations of Spray a Flames Using Explicit Coupling of the Energy Equation with the FGM Database. Flow, Turbulence and Combustion, 2022, 109, 193-223.	2.6	4
48	Turbulent thermal convection driven by free-surface evaporation in cuboidal domains of different aspect ratios. Physics of Fluids, 2021, 33, 015104.	4.0	3
49	Numerical study of the collapse of columns of sand immersed in water using two-phase flow modelling. International Journal of Multiphase Flow, 2022, 153, 104143.	3.4	3
50	On the Relevance of Low-Mach-Number Asymptotics in Thermodynamics of Heterogeneous, Immiscible Mixtures. Journal of Non-Equilibrium Thermodynamics, 2017, 42, .	4.2	2
51	Nodal temperature estimation algorithms for nonlinear thermal network models. AIAA Journal, 2002, 40, 1451-1461.	2.6	2
52	A computational framework for electrification of liquid flows. Journal of Loss Prevention in the Process Industries, 2022, 74, 104637.	3.3	1
53	Hydrodynamical simulations of detonations in superbursts. Computer Physics Communications, 2008, 179, 190-193.	7.5	0