Peter Dm Spelt

List of Publications by Year
in descending order

48 papers	2,566 citations	279798 23 h-index	206112 48 g-index
49 all docs	49 docs citations	49 times ranked	1938 citing authors

#	Article	IF	Citations
1	The response of a 2D droplet on a wall executing small sinusoidal vibrations. International Journal of Multiphase Flow, 2021, 142, 103732.	3.4	1
2	Simulations of viscous and compressible gas–gas flows using high-order finite difference schemes. Journal of Computational Physics, 2018, 361, 56-81.	3.8	10
3	The effective diffusivity of ordered and freely evolving bubbly suspensions. Journal of Fluid Mechanics, 2018, 840, 215-237.	3.4	7
4	Level-set simulations of a 2D topological rearrangement in a bubble assembly: effects of surfactant properties. Journal of Fluid Mechanics, 2018, 838, 222-247.	3.4	9
5	Instability of pressure-driven gas–liquid two-layer channel flows in two and three dimensions. Journal of Fluid Mechanics, 2018, 849, 1-34.	3.4	3
6	Buoyancy-driven bubbly flows: ordered and free rise at small and intermediate volume fraction. Journal of Fluid Mechanics, 2017, 816, 94-141.	3.4	25
7	Mass conservation and reduction of parasitic interfacial waves in level-set methods for the numerical simulation of two-phase flows: A comparative study. International Journal of Multiphase Flow, 2017, 95, 235-256.	3.4	26
8	A level-set method for large-scale simulations of three-dimensional flows with moving contact lines. Journal of Computational Physics, 2017, 348, 151-170.	3.8	12
9	Non-isothermal droplet spreading/dewetting andÂits reversal. Journal of Fluid Mechanics, 2015, 776, 74-95.	3.4	8
10	Numerical Simulations of Flows with Moving Contact Lines. Annual Review of Fluid Mechanics, 2014, 46, 97-119.	25.0	248
11	Linear instability, nonlinear instability and ligament dynamics in three-dimensional laminar two-layer liquid–liquid flows. Journal of Fluid Mechanics, 2014, 750, 464-506.	3.4	31
12	An efficient computational model for macroscale simulations of moving contact lines. Journal of Computational Physics, 2013, 242, 37-52.	3.8	44
13	Absolute linear instability in laminar and turbulent gas–liquid two-layer channel flow. Journal of Fluid Mechanics, 2013, 714, 58-94.	3.4	16
14	Validation and modification of asymptotic analysis of slow and rapid droplet spreading by numerical simulation. Journal of Fluid Mechanics, 2013, 715, 283-313.	3.4	32
15	Inertial coalescence of droplets on a partially wetting substrate. Physics of Fluids, 2013, 25, .	4.0	23
16	An analytical connection between temporal and spatio-temporal growth rates in linear stability analysis. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2013, 469, 20130171.	2.1	7
17	Three-dimensional dynamics of oblate and prolate capsules in shear flow. Physical Review E, 2013, 88, 053021.	2.1	17
18	Propagation of capillary waves and ejection of small droplets in rapid droplet spreading. Journal of Fluid Mechanics, 2012, 697, 92-114.	3.4	65

#	Article	IF	Citations
19	Turbulent flow over a liquid layer revisited: multi-equation turbulence modelling. Journal of Fluid Mechanics, 2011, 683, 357-394.	3.4	11
20	Interfacial instability in turbulent flow over a liquid film in a channel. International Journal of Multiphase Flow, 2011, 37, 812-830.	3.4	22
21	Sustained inertial-capillary oscillations and jet formation in displacement flow in a tube. Physics of Fluids, 2011, 23, .	4.0	9
22	Sliding, pinch-off and detachment of a droplet on a wall in shear flow. Journal of Fluid Mechanics, 2010, 644, 217-244.	3.4	56
23	Shock emission from collapsing gas bubbles. Journal of Fluid Mechanics, 2010, 646, 363-373.	3.4	30
24	Linear and nonlinear spatio-temporal instability in laminar two-layer flows. Journal of Fluid Mechanics, 2010, 656, 458-480.	3.4	49
25	Interfacial instability of turbulent two-phase stratified flow: Pressure-driven flow and non-Newtonian layers. Journal of Non-Newtonian Fluid Mechanics, 2010, 165, 489-508.	2.4	13
26	Electrically induced bubble deformation, translation and collapse. Journal of Engineering Mathematics, 2009, 65, 291-310.	1.2	5
27	Critical strength of an electric field whereby aÂbubble can adopt a steady shape. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2009, 465, 3127-3143.	2.1	8
28	Numerical simulation of the onset of slug initiation in laminar horizontal channel flow. International Journal of Multiphase Flow, 2008, 34, 206-225.	3.4	31
29	Onset of motion of a three-dimensional droplet on a wall in shear flow at moderate Reynolds numbers. Journal of Fluid Mechanics, 2008, 599, 341-362.	3.4	90
30	Linear instability of pressure-driven channel flow of a Newtonian and a Herschel-Bulkley fluid. Physics of Fluids, 2007, 19, .	4.0	90
31	Wetting condition in diffuse interface simulations of contact line motion. Physical Review E, 2007, 75, 046708.	2.1	261
32	Inertial effects in droplet spreading: a comparison between diffuse-interface and level-set simulations. Journal of Fluid Mechanics, 2007, 576, 287-296.	3.4	125
33	Diffuse interface model for incompressible two-phase flows with large density ratios. Journal of Computational Physics, 2007, 226, 2078-2095.	3.8	524
34	Shear flow past two-dimensional droplets pinned or moving on an adhering channel wall at moderate Reynolds numbers: a numerical study. Journal of Fluid Mechanics, 2006, 561, 439.	3.4	54
35	Collapse of a bubble in an electric field. Physical Review E, 2006, 74, 046309.	2.1	11
36	Collisions of liquid coated solid spherical particles in a viscous fluid. Journal of Colloid and Interface Science, 2006, 301, 594-606.	9.4	1

#	ARTICLE	IF	CITATIONS
37	A level-set approach for simulations of flows with multiple moving contact lines with hysteresis. Journal of Computational Physics, 2005, 207, 389-404.	3.8	170
38	Flows of inelastic non-Newtonian fluids through arrays of aligned cylinders. Part 1. Creeping flows. Journal of Engineering Mathematics, 2005, 51, 57-80.	1.2	23
39	Flows of inelastic non-Newtonian fluids through arrays of aligned cylinders. Part 2. Inertial effects for square arrays. Journal of Engineering Mathematics, 2005, 51, 81-97.	1.2	12
40	Dynamics of thin free films with reaction-driven density and viscosity variations. Physics of Fluids, 2005, 17, 122102.	4.0	7
41	Creeping flows of Bingham fluids through arrays of aligned cylinders. Journal of Non-Newtonian Fluid Mechanics, 2005, 129, 66-74.	2.4	17
42	Creeping flows of power-law fluids through periodic arrays of elliptical cylinders. Journal of Non-Newtonian Fluid Mechanics, 2003, 111, 211-228.	2.4	36
43	Finite-Weber-number motion of bubbles through a nearly inviscid liquid. Journal of Fluid Mechanics, 2002, 460, 241-280.	3.4	44
44	A model for resin viscosity during cure in the resin transfer moulding process. Composites Part A: Applied Science and Manufacturing, 2002, 33, 1497-1503.	7.6	64
45	Attenuation of sound in concentrated suspensions: theory and experiments. Journal of Fluid Mechanics, 2001, 430, 51-86.	3.4	23
46	Determination of particle size distributions from acoustic wave propagation measurements. Physics of Fluids, 1999, 11, 1065-1080.	4.0	10
47	On the motion of gas bubbles in homogeneous isotropic turbulence. Journal of Fluid Mechanics, 1997, 336, 221-244.	3.4	133
48	Properties and Averaged Equations for Flows of Bubbly Liquids. Flow, Turbulence and Combustion, 1997, 58, 337-386.	0.2	47