

Gretar Tryggvason

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/7126004/publications.pdf>

Version: 2024-02-01

211
papers

12,754
citations

29994

54
h-index

25716

108
g-index

237
all docs

237
docs citations

237
times ranked

5387
citing authors

#	ARTICLE	IF	CITATIONS
1	Finding Closure Models to Match the Time Evolution of Coarse Grained 2D Turbulence Flows Using Machine Learning. <i>Fluids</i> , 2022, 7, 154.	0.8	1
2	A mass-momentum consistent, Volume-of-Fluid method for incompressible flow on staggered grids. <i>Computers and Fluids</i> , 2021, 215, 104785.	1.3	25
3	Numerical study of droplet motion on discontinuous wetting gradient surface with rough strip. <i>Physics of Fluids</i> , 2021, 33, .	1.6	9
4	Condensing smooth layers into singular sheets by weighted coordinate smoothing. <i>Journal of Computational Physics</i> , 2021, 431, 110140.	1.9	1
5	Interface retaining coarsening of multiphase flows. <i>Physics of Fluids</i> , 2021, 33, .	1.6	3
6	Numerical Studies of Disperse Three-Phase Fluid Flows. <i>Fluids</i> , 2021, 6, 317.	0.8	6
7	Effect of topology changes on the breakup of a periodic liquid jet. <i>Computers and Fluids</i> , 2021, 228, 105059.	1.3	1
8	Direct numerical simulations of multiphase flows: Opportunities and challenges. <i>AIP Conference Proceedings</i> , 2020, , .	0.3	2
9	Controlling the Jumping Angle of Coalescing Droplets Using Surface Structures. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 52221-52228.	4.0	14
10	The passage of a bubble or a drop past an obstruction in a channel. <i>Physics of Fluids</i> , 2020, 32, .	1.6	7
11	Effects of soluble surfactant on lateral migration of a bubble in a pressure driven channel flow. <i>International Journal of Multiphase Flow</i> , 2020, 126, 103251.	1.6	8
12	Power Generation Using Kites in a GroundGen Airborne Wind Energy System: A Numerical Study. <i>Journal of Energy Resources Technology, Transactions of the ASME</i> , 2020, 142, .	1.4	1
13	Volume conservation method for the three-dimensional front-tracking method. <i>Mechanical Engineering Letters</i> , 2020, 6, 20-00216-20-00216.	0.2	1
14	Effect of electrostatic forces on the distribution of drops in turbulent channel flows. <i>Physics of Fluids</i> , 2019, 31, 105104.	1.6	13
15	Impact of Inlet Gas Turbulent Intensity on the Characteristics of Droplets Generated in Airblast Atomization. , 2019, , .		2
16	Numerical study of thermocapillary migration of a bubble in a channel with an obstruction. <i>Physics of Fluids</i> , 2019, 31, .	1.6	26
17	Numerical simulation of self-propelled non-equal sized droplets. <i>Physics of Fluids</i> , 2019, 31, 052107.	1.6	25
18	Simulations of fused filament fabrication using a front tracking method. <i>International Journal of Heat and Mass Transfer</i> , 2019, 138, 1310-1319.	2.5	26

#	ARTICLE	IF	CITATIONS
19	The effect of fluid shear on oscillating bubbly flows. <i>Physics of Fluids</i> , 2019, 31, 042110.	1.6	10
20	Parallel Computation using Event-Triggered Communication. , 2019, , .		1
21	A two-phase mixing layer between parallel gas and liquid streams: multiphase turbulence statistics and influence of interfacial instability. <i>Journal of Fluid Mechanics</i> , 2019, 859, 268-307.	1.4	56
22	A numerical study of the effect of viscoelastic stresses in fused filament fabrication. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2019, 346, 242-259.	3.4	60
23	Computing curvature for volume of fluid methods using machine learning. <i>Journal of Computational Physics</i> , 2019, 377, 155-161.	1.9	30
24	Bubble induced turbulence model improved by direct numerical simulation of bubbly flow. <i>Chemical Engineering Journal</i> , 2019, 377, 120001.	6.6	11
25	Multifluid flows in a vertical channel undergoing topology changes: Effect of void fraction. <i>Physical Review Fluids</i> , 2019, 4, .	1.0	15
26	A numerical study of the phase distribution in oscillatory bubbly flows. <i>International Journal of Heat and Fluid Flow</i> , 2018, 70, 152-159.	1.1	3
27	Fully resolved numerical simulations of fused deposition modeling. Part I: fluid flow. <i>Rapid Prototyping Journal</i> , 2018, 24, 463-476.	1.6	88
28	Computational Investigation of Full-Scale Tethered Underwater Kite. , 2018, , .		0
29	Event-Triggered Communication in Parallel Computing. , 2018, , .		4
30	A numerical study of oscillation induced coalescence in bubbly flows. <i>Physics of Fluids</i> , 2018, 30, 127105.	1.6	16
31	Fully resolved numerical simulations of fused deposition modeling. Part II " solidification, residual stresses and modeling of the nozzle. <i>Rapid Prototyping Journal</i> , 2018, 24, 973-987.	1.6	58
32	Fast Parallel Computation using Periodic Synchronization. , 2018, , .		3
33	Direct numerical simulations of multifluid flows in a vertical channel undergoing topology changes. <i>Physical Review Fluids</i> , 2018, 3, .	1.0	26
34	Effect of insoluble surfactant on turbulent bubbly flows in vertical channels. <i>International Journal of Multiphase Flow</i> , 2017, 95, 135-143.	1.6	21
35	Effect of velocity fluctuations on the rise of buoyant bubbles. <i>Computers and Fluids</i> , 2017, 150, 8-30.	1.3	4
36	Multiphase turbulence mechanisms identification from consistent analysis of direct numerical simulation data. <i>Nuclear Engineering and Technology</i> , 2017, 49, 1318-1325.	1.1	14

#	ARTICLE	IF	CITATIONS
37	Simulation of Tethered Underwater Kites Moving in Three Dimensions for Power Generation. , 2017, , .		1
38	An efficient front-tracking method for simulation of multi-density bubbles. International Journal for Numerical Methods in Fluids, 2017, 84, 445-465.	0.9	4
39	Spray formation in a quasiplanar gas-liquid mixing layer at moderate density ratios: A numerical closeup. Physical Review Fluids, 2017, 2, .	1.0	65
40	Simulation of Tethered Underwater Kites: Three Dimensional Trajectories for Power Generation. , 2016, , .		1
41	A Nonlinear Computational Model of Tethered Underwater Kites for Power Generation. Journal of Fluids Engineering, Transactions of the ASME, 2016, 138, .	0.8	8
42	Using statistical learning to close two-fluid multiphase flow equations for bubbly flows in vertical channels. International Journal of Multiphase Flow, 2016, 85, 336-347.	1.6	55
43	DNS-Assisted Modeling of Bubbly Flows in Vertical Channels. Nuclear Science and Engineering, 2016, 184, 312-320.	0.5	33
44	Direct numerical simulations of bubbly flows. Mechanical Engineering Reviews, 2015, 2, 15-00220-15-00220.	4.7	7
45	Dissolution of Single Carbon Dioxide Bubbles in a Vertical Pipe. Journal of Chemical Engineering of Japan, 2015, 48, 418-426.	0.3	9
46	Computational Simulation of the Tethered Undersea Kites for Power Generation. , 2015, , .		7
47	Two-dimensional direct numerical simulation of bubble cloud cavitation by front-tracking method. IOP Conference Series: Materials Science and Engineering, 2015, 72, 012001.	0.3	8
48	Direct Numerical Simulations of Flows with Phase Change. Procedia IUTAM, 2015, 15, 2-13.	1.2	27
49	Accelerating Poisson solvers in front tracking method using parallel direct methods. Computers and Fluids, 2015, 118, 101-113.	1.3	5
50	Numerical study of the flow and heat transfer of bubbly flows in inclined channels. International Journal of Heat and Fluid Flow, 2015, 56, 43-50.	1.1	16
51	Using statistical learning to close two-fluid multiphase flow equations for a simple bubbly system. Physics of Fluids, 2015, 27, .	1.6	103
52	Numerical investigations of drop solidification on a cold plate in the presence of volume change. International Journal of Multiphase Flow, 2015, 76, 73-85.	1.6	75
53	Heat transfer in turbulent bubbly flow in vertical channels. Chemical Engineering Science, 2015, 122, 106-113.	1.9	48
54	Nonlinear simulation of a spar buoy floating wind turbine under extreme ocean conditions. Journal of Renewable and Sustainable Energy, 2014, 6, .	0.8	23

#	ARTICLE	IF	CITATIONS
55	Numerical Modeling of Kites for Power Generation. , 2014, , .		1
56	Numerical Investigations of Drop Solidification by a Front-Tracking Method. , 2014, , .		1
57	The Transient Evolution of Bubbles in Turbulent Channel Flows. , 2014, , .		0
58	Fully Resolved Numerical Simulations of Fused Deposition Modeling. , 2014, , .		9
59	Effect of bubble interactions on mass transfer in bubbly flow. International Journal of Heat and Mass Transfer, 2014, 79, 390-396.	2.5	39
60	Simulations of soluble surfactants in 3D multiphase flow. Journal of Computational Physics, 2014, 274, 737-757.	1.9	71
61	Effects of shape oscillation on mass transfer from a Taylor bubble. International Journal of Multiphase Flow, 2014, 58, 236-245.	1.6	41
62	A validation of an embedded analytical description approach for the computations of high Schmidt number mass transfer from bubbles in liquids. Chemical Engineering Science, 2013, 101, 165-174.	1.9	29
63	Dynamics of nearly spherical bubbles in a turbulent channel upflow. Journal of Fluid Mechanics, 2013, 732, 166-189.	1.4	66
64	Computations of breakup modes in laminar compound liquid jets in a coflowing fluid. International Journal of Multiphase Flow, 2013, 49, 58-69.	1.6	51
65	Direct Numerical Simulation of Shock Propagation in Bubbly Liquids. , 2013, , 177-201.		1
66	A Nonlinear Computational Model of Floating Wind Turbines. Journal of Fluids Engineering, Transactions of the ASME, 2013, 135, .	0.8	20
67	Transition between regimes of a vertical channel bubbly upflow due to bubble deformability. Physics of Fluids, 2013, 25, .	1.6	58
68	A Front-Tracking Method for Three-Phase Computations of Solidification with Volume Change. Journal of Chemical Engineering of Japan, 2013, 46, 726-731.	0.3	43
69	Turbulent Bubbly Channel Flow and its Effect on Heat Transfer. , 2013, , .		0
70	Modeling and Testing of a Kite-Powered Water Pump. Green Energy and Technology, 2013, , 387-401.	0.4	1
71	Nonlinear Simulation of a Spar Buoy Floating Wind Turbine. , 2013, , .		0
72	Capturing Subgrid Physics in DNS of Multiphase Flows. , 2013, , .		0

#	ARTICLE	IF	CITATIONS
73	A Nonlinear Computational Model for Floating Wind Turbines. , 2012, , .		4
74	Scale-model experiments on floating wind turbine platforms. , 2012, , .		2
75	Development and validation of a computational model for floating wind turbine platforms. , 2012, , .		1
76	Numerical Calculations of Pattern Formation of Compound Drops Detaching from a Compound Jet in a Co-Flowing Immiscible Fluid. Journal of Chemical Engineering of Japan, 2012, 45, 721-726.	0.3	13
77	DNS Studies of Turbulent Bubbly Flows in Vertical Channels. , 2012, , .		1
78	Multiscale computations of mass transfer from buoyant bubbles. Chemical Engineering Science, 2012, 75, 456-467.	1.9	62
79	So Much Accomplished: So Much to be Done. , 2011, , 265-281.		0
80	Stability and Control of Ground Tethered Energy Systems. , 2011, , .		4
81	Numerical Simulation of Formation and Breakup of a Three-Fluid Compound Jet. Journal of Fluid Science and Technology, 2011, 6, 252-263.	0.2	14
82	Numerical Simulation of Formation and Breakup of a Compound Jet by the Front-Tracking/Finite Difference Method. , 2011, , .		0
83	Multiscale Issues in DNS of Multiphase Flows. , 2011, , .		0
84	Computational Modeling of Future Wind Power Installations. , 2011, , .		0
85	Virtual motion of real particles. Journal of Fluid Mechanics, 2010, 650, 1-4.	1.4	17
86	A front-tracking method with projected interface conditions for compressible multi-fluid flows. Computers and Fluids, 2010, 39, 1804-1814.	1.3	51
87	Multiscale computations of thin films in multiphase flows. International Journal of Multiphase Flow, 2010, 36, 71-77.	1.6	34
88	Multiscale issues in DNS of multiphase flows. Acta Mathematica Scientia, 2010, 30, 551-562.	0.5	18
89	Investigation and modeling of bubble-bubble interaction effect in homogeneous bubbly flows. Physics of Fluids, 2010, 22, .	1.6	46
90	Robotics Engineering: A Discipline Whose Time Has Come [Education]. IEEE Robotics and Automation Magazine, 2009, 16, 18-20.	2.2	11

#	ARTICLE	IF	CITATIONS
91	A front-tracking/ghost-fluid method for fluid interfaces in compressible flows. Journal of Computational Physics, 2009, 228, 4012-4037.	1.9	218
92	Re-engineering engineering education for the challenges of the 21st century. IEEE Engineering Management Review, 2009, 37, 38-38.	1.0	8
93	Studies of Bubbly Channel Flows by Direct Numerical Simulations. Notes on Numerical Fluid Mechanics and Multidisciplinary Design, 2009, , 93-111.	0.2	1
94	DIRECT NUMERICAL SIMULATIONS OF MULTIPHASE FLOWS. Lecture Notes Series, Institute for Mathematical Sciences, 2009, , 161-175.	0.2	0
95	Impact of a vortex ring on a density interface using a regularized inviscid vortex sheet method. Journal of Computational Physics, 2008, 227, 9021-9043.	1.9	35
96	Shock structure in bubbly liquids: comparison of direct numerical simulations and model equations. Shock Waves, 2008, 17, 433-440.	1.0	14
97	A front-tracking method for computation of interfacial flows with soluble surfactants. Journal of Computational Physics, 2008, 227, 2238-2262.	1.9	210
98	DNS-based prediction of the selectivity of fast multiphase reactions: Hydrogenation of nitroarenes. Chemical Engineering Science, 2008, 63, 3279-3291.	1.9	39
99	Cylindrical bubble dynamics: Exact and direct numerical simulation results. Physics of Fluids, 2008, 20, 040903.	1.6	11
100	Effect of bubble deformability in turbulent bubbly upflow in a vertical channel. Physics of Fluids, 2008, 20, .	1.6	133
101	Direct Numerical Simulations of Nucleate Boiling. , 2008, , .		4
102	Validation of Two-Fluid Eulerian CFD Modeling for Microbubble Drag Reduction Across a Wide Range of Reynolds Numbers. Journal of Fluids Engineering, Transactions of the ASME, 2007, 129, 66-79.	0.8	37
103	Introduction: A computational approach to multiphase flow. , 2007, , 1-18.		3
104	Characterization of the localized hydrodynamic shear forces and dissolved oxygen distribution in sparged bioreactors. Biotechnology and Bioengineering, 2007, 97, 317-331.	1.7	29
105	Flow and mass transfer of fully resolved bubbles in non-Newtonian fluids. AIChE Journal, 2007, 53, 1861-1878.	1.8	50
106	The transient buoyancy driven motion of bubbles across a two-dimensional quiescent domain. International Journal of Multiphase Flow, 2007, 33, 1308-1319.	1.6	5
107	Effect of bubble size in turbulent bubbly downflow in a vertical channel. Chemical Engineering Science, 2007, 62, 3008-3018.	1.9	66
108	Numerical study of turbulent bubbly downflows in a vertical channel. Physics of Fluids, 2006, 18, 103302.	1.6	73

#	ARTICLE	IF	CITATIONS
109	Numerical Simulation of Shock Propagation in Bubbly Liquids by the Front Tracking Method. , 2006, , 323-330.		0
110	Direct numerical simulations of gas/liquid multiphase flows. Fluid Dynamics Research, 2006, 38, 660-681.	0.6	77
111	A DNS study of laminar bubbly flows in a vertical channel. International Journal of Multiphase Flow, 2006, 32, 643-660.	1.6	77
112	Breakup mode of an axisymmetric liquid jet injected into another immiscible liquid. Chemical Engineering Science, 2006, 61, 3986-3996.	1.9	67
113	Pattern formation of drops in thermocapillary migration. International Journal of Heat and Mass Transfer, 2006, 49, 2265-2276.	2.5	36
114	Re-engineering engineering education for the challenges of the 21st century. Jom, 2006, 58, 14-17.	0.9	46
115	Direct Numerical Simulations of Bubbly Flows. , 2006, , 273-281.		7
116	Mass transfer and chemical reactions in reactive deformable bubble swarms. Applied Physics Letters, 2006, 88, 134102.	1.5	9
117	RECENT PROGRESS IN COMPUTATIONAL STUDIES OF DISPERSE BUBBLY FLOWS. Multiphase Science and Technology, 2006, 18, 231-249.	0.2	2
118	Use of Variable-Density Flow Solvers for Fictitious-Domain Computations of Dispersed Solid Particles in Liquid Flow. , 2006, , 173-183.		0
119	Implicitly-coupled finite difference schemes for fictitious domain simulation of solid-liquid flow; marker, volumetric, and hybrid forcing. , 2006, , 363-370.		0
120	Explicit vs. Implicit Particle-Liquid Coupling in Fixed-Grid Computations at Moderate Particle Reynolds Number. , 2005, , 943.		5
121	Mathematical modeling and computer simulation of molten metal cleansing by the rotating impeller degasser. Journal of Materials Processing Technology, 2005, 168, 112-118.	3.1	41
122	Comparison of results from DNS of bubbly flows with a two-fluid model for two-dimensional laminar flows. International Journal of Multiphase Flow, 2005, 31, 1036-1048.	1.6	26
123	Direct numerical simulations of flows with phase change. Computers and Structures, 2005, 83, 445-453.	2.4	38
124	Mass transfer and chemical reactions in bubble swarms with dynamic interfaces. AIChE Journal, 2005, 51, 2786-2800.	1.8	107
125	Capture and inception of bubbles near line vortices. Physics of Fluids, 2005, 17, 022105.	1.6	51
126	Direct numerical simulations of shock propagation in bubbly liquids. Physics of Fluids, 2005, 17, 121705.	1.6	26

#	ARTICLE	IF	CITATIONS
127	The effect of bubbles on the wall drag in a turbulent channel flow. <i>Physics of Fluids</i> , 2005, 17, 095102.	1.6	137
128	A direct numerical simulation study of the buoyant rise of bubbles at $O(100)$ Reynolds number. <i>Physics of Fluids</i> , 2005, 17, 093303.	1.6	76
129	The effects of electrostatic forces on the distribution of drops in a channel flow: Two-dimensional oblate drops. <i>Physics of Fluids</i> , 2005, 17, 093302.	1.6	52
130	Effects of Splashing Droplets on Spray Cooling Processes. , 2004, , 149.		0
131	Computations of film boiling. Part II: multi-mode film boiling. <i>International Journal of Heat and Mass Transfer</i> , 2004, 47, 5463-5476.	2.5	77
132	A front tracking method for computations of boiling in complex geometries. <i>International Journal of Multiphase Flow</i> , 2004, 30, 1037-1050.	1.6	62
133	Computations of structures formed by the solidification of impinging molten metal drops. <i>Applied Mathematical Modelling</i> , 2004, 28, 127-144.	2.2	31
134	Computations of film boiling. Part I: numerical method. <i>International Journal of Heat and Mass Transfer</i> , 2004, 47, 5451-5461.	2.5	168
135	Numerical simulation of dendritic solidification with convection: Three-dimensional flow. <i>Journal of Computational Physics</i> , 2004, 194, 677-696.	1.9	81
136	Numerical and Experimental Studies of Splashing Droplets. , 2004, , .		3
137	Computations of Explosive Boiling in Microgravity. <i>Journal of Scientific Computing</i> , 2003, 19, 163-182.	1.1	31
138	Thermocapillary interaction of two bubbles or drops. <i>International Journal of Multiphase Flow</i> , 2003, 29, 1117-1135.	1.6	89
139	A comparative study of lattice Boltzmann and front-tracking finite-difference methods for bubble simulations. <i>International Journal of Multiphase Flow</i> , 2003, 29, 109-116.	1.6	58
140	Workshop Findings. <i>International Journal of Multiphase Flow</i> , 2003, 29, 1047-1059.	1.6	14
141	Appendix 3: Report of study group on computational physics. <i>International Journal of Multiphase Flow</i> , 2003, 29, 1089-1099.	1.6	10
142	Effect of bubble deformation on the properties of bubbly flows. <i>Journal of Fluid Mechanics</i> , 2003, 495, 77-118.	1.4	165
143	Computations of Multiphase Flows. <i>Advances in Applied Mechanics</i> , 2003, 39, 81-120.	1.4	16
144	DIRECT NUMERICAL SIMULATIONS OF MULTIPHASE FLOW. <i>Multiphase Science and Technology</i> , 2003, 15, 255-265.	0.2	1

#	ARTICLE	IF	CITATIONS
145	The effect of electrostatic forces on droplet suspensions. , 2003, , 1166-1168.		0
146	Microstructure of a Bidisperse Swarm of Spherical Bubbles. , 2002, , 549.		1
147	Direct Numerical Simulations of Flows With Phase Change. , 2002, , 151.		1
148	Nonlinear dynamics of an interface in an inclined channel. Physics of Fluids, 2002, 14, 1877-1885.	1.6	17
149	Dynamics of homogeneous bubbly flows Part 1. Rise velocity and microstructure of the bubbles. Journal of Fluid Mechanics, 2002, 466, 17-52.	1.4	184
150	Dynamics of homogeneous bubbly flows Part 2. Velocity fluctuations. Journal of Fluid Mechanics, 2002, 466, 53-84.	1.4	99
151	The nonlinear behavior of a sheared immiscible fluid interface. Physics of Fluids, 2002, 14, 2871-2885.	1.6	54
152	Numerical Simulation of Dendritic Solidification with Convection: Two-Dimensional Geometry. Journal of Computational Physics, 2002, 180, 471-496.	1.9	127
153	Simulation of Bidisperse Bubbly Gas-Liquid Flows by a Parallel Finite-Difference/Front-Tracking Method. , 2002, , 298-308.		1
154	The Effect of Bubbles on Vortical Flows. , 2002, , .		0
155	Secondary breakup of axisymmetric liquid drops. II. Impulsive acceleration. Physics of Fluids, 2001, 13, 1554-1565.	1.6	91
156	A Front-Tracking Method for the Computations of Multiphase Flow. Journal of Computational Physics, 2001, 169, 708-759.	1.9	1,744
157	The New Mechanical Engineering Curriculum at the University of Michigan. Journal of Engineering Education, 2001, 90, 437-444.	1.9	18
158	Simulation of Bubbly Gas-Liquid Flows by a Parallel Finite-Difference/Front-Tracking Method. , 2001, , 326-337.		2
159	Low Reynolds Number Interactions between Colloidal Particles near the Entrance to a Cylindrical Pore. Journal of Colloid and Interface Science, 2000, 229, 311-322.	5.0	25
160	Effects of heat release in a reacting vortex ring. Proceedings of the Combustion Institute, 2000, 28, 515-520.	2.4	6
161	A numerical study of the motion of drops in Poiseuille flow. Part 1. Lateral migration of one drop. Journal of Fluid Mechanics, 2000, 411, 325-350.	1.4	153
162	Coupling between fluid dynamics and combustion in a laminar vortex ring. , 2000, , .		4

#	ARTICLE	IF	CITATIONS
163	Direct numerical simulations of bubbly flows Part 2. Moderate Reynolds number arrays. Journal of Fluid Mechanics, 1999, 385, 325-358.	1.4	165
164	Direct numerical simulations of three-dimensional bubbly flows. Physics of Fluids, 1999, 11, 1967-1969.	1.6	82
165	The formation of thick borders on an initially stationary fluid sheet. Physics of Fluids, 1999, 11, 2487-2493.	1.6	41
166	A front tracking scheme for high density-ratio multi-fluid flows. , 1999, , .		1
167	Secondary breakup of axisymmetric liquid drops. I. Acceleration by a constant body force. Physics of Fluids, 1999, 11, 3650-3667.	1.6	131
168	The Osmotic Migration of Cells in a Solute Gradient. Biophysical Journal, 1999, 77, 1257-1267.	0.2	37
169	An Adaptive, Cartesian, Front-Tracking Method for the Motion, Deformation and Adhesion of Circulating Cells. Journal of Computational Physics, 1998, 143, 346-380.	1.9	83
170	A Front Tracking Method for the Motion of Premixed Flames. Journal of Computational Physics, 1998, 144, 52-69.	1.9	48
171	Dissipation of energy by finite-amplitude surface waves. Computers and Fluids, 1998, 27, 829-845.	1.3	14
172	Computations of boiling flows. International Journal of Multiphase Flow, 1998, 24, 387-410.	1.6	405
173	Direct numerical simulations of bubbly flows. Part 1. Low Reynolds number arrays. Journal of Fluid Mechanics, 1998, 377, 313-345.	1.4	235
174	The Rise of Bubbles in a Vertical Shear Flow. Journal of Fluids Engineering, Transactions of the ASME, 1997, 119, 443-449.	0.8	125
175	Direct numerical simulations of fluid flow, heat transfer and phase changes. , 1997, , .		0
176	Vortex ring generation due to the coalescence of a water drop at a free surface. Experiments in Fluids, 1997, 22, 369-374.	1.1	44
177	Deformable bubbles in a free shear layer. International Journal of Multiphase Flow, 1997, 23, 977-1001.	1.6	18
178	An inverse energy cascade in two-dimensional low Reynolds number bubbly flows. Journal of Fluid Mechanics, 1996, 314, 315-330.	1.4	80
179	Integral Method Solution of Time-Dependent Strained Diffusion-Reaction Layers with Multistep Kinetics. SIAM Journal on Applied Mathematics, 1996, 56, 1039-1059.	0.8	12
180	Numerical simulations of three-dimensional drop collisions. AIAA Journal, 1996, 34, 750-755.	1.5	82

#	ARTICLE	IF	CITATIONS
181	Head-on collision of drops – A numerical investigation. <i>Physics of Fluids</i> , 1996, 8, 29-42.	1.6	191
182	<title>Direct numerical simulations in material processing</title>. , 1996, , .		0
183	A Front-Tracking Method for Dendritic Solidification. <i>Journal of Computational Physics</i> , 1996, 123, 127-148.	1.9	323
184	The collapse of a cavitation bubble in shear flows – A numerical study. <i>Physics of Fluids</i> , 1995, 7, 2608-2616.	1.6	51
185	Flow modulation of a planar free shear layer with large bubbles – direct numerical simulations. <i>International Journal of Multiphase Flow</i> , 1994, 20, 1109-1128.	1.6	14
186	Numerical simulations of rising bubbles. <i>Fluid Mechanics and Its Applications</i> , 1994, , 247-255.	0.1	11
187	LIM modeling of chemical reactions in spatially and temporally developing shear flows. , 1994, , .		2
188	Collision of a vortex pair with a contaminated free surface. <i>Physics of Fluids A, Fluid Dynamics</i> , 1992, 4, 1215-1229.	1.6	26
189	Head-on collision of a large vortex ring with a free surface. <i>Physics of Fluids A, Fluid Dynamics</i> , 1992, 4, 1457-1466.	1.6	19
190	Vortex structure and dynamics in the near field of a coaxial jet. <i>Journal of Fluid Mechanics</i> , 1992, 241, 371-402.	1.4	143
191	A front-tracking method for viscous, incompressible, multi-fluid flows. <i>Journal of Computational Physics</i> , 1992, 100, 25-37.	1.9	1,972
192	Computations of multi-fluid flows. <i>Physica D: Nonlinear Phenomena</i> , 1992, 60, 70-83.	1.3	140
193	Full numerical simulations of multifluid flows. <i>Physics of Fluids A, Fluid Dynamics</i> , 1991, 3, 1455-1455.	1.6	0
194	Lagrangian model simulations of molecular mixing, including finite rate chemical reactions, in a temporally developing shear layer. <i>Physics of Fluids A, Fluid Dynamics</i> , 1991, 3, 1300-1311.	1.6	20
195	An integral method for mixing, chemical reactions, and extinction in unsteady strained diffusion layers. <i>Combustion and Flame</i> , 1991, 83, 207-220.	2.8	13
196	Fine Structure of Vortex Sheet Rollup by Viscous and Inviscid Simulation. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , 1991, 113, 31-36.	0.8	55
197	Computations of three-dimensional Rayleigh – Taylor instability. <i>Physics of Fluids A, Fluid Dynamics</i> , 1990, 2, 656-659.	1.6	98
198	The free-surface signature of unsteady, two-dimensional vortex flows. <i>Journal of Fluid Mechanics</i> , 1990, 218, 547.	1.4	46

#	ARTICLE	IF	CITATIONS
199	Vortex pair generation and interaction with a free surface. <i>Physics of Fluids A, Fluid Dynamics</i> , 1989, 1, 170-172.	1.6	31
200	Model of Rayleigh-Taylor Instability. <i>Physical Review Letters</i> , 1989, 62, 749-752.	2.9	28
201	Simulation of vortex sheet roll-up by vortex methods. <i>Journal of Computational Physics</i> , 1989, 80, 1-16.	1.9	16
202	Dynamics of vortex interaction with a density interface. <i>Journal of Fluid Mechanics</i> , 1989, 205, 1.	1.4	66
203	Numerical simulations of the Rayleigh-Taylor instability. <i>Journal of Computational Physics</i> , 1988, 75, 253-282.	1.9	251
204	Deformation of a free surface as a result of vortical flows. <i>Physics of Fluids</i> , 1988, 31, 955.	1.4	12
205	The Bifurcation of Tracked Scalar Waves. <i>SIAM Journal on Scientific and Statistical Computing</i> , 1988, 9, 61-79.	1.5	83
206	Finger-interaction mechanisms in stratified Hele-Shaw flow. <i>Journal of Fluid Mechanics</i> , 1985, 154, 287-301.	1.4	84
207	Vortex dynamics of passive and active interfaces. <i>Physica D: Nonlinear Phenomena</i> , 1984, 12, 59-70.	1.3	25
208	Numerical experiments on Hele Shaw flow with a sharp interface. <i>Journal of Fluid Mechanics</i> , 1983, 136, 1.	1.4	230
209	Direct numerical simulations of finite Reynolds number flows. , 0, , 19-36.		0
210	Immersed boundary methods for fluid interfaces. , 0, , 37-77.		18
211	Educating the Global Robotics Engineer. , 0, , .		0