Roberto Verzicco

List of Publications by Year in Descending Order

217 papers	6,885 citations	41 h-index	76 g-index
238 ext. papers	8,128 ext. citations	3.7 avg, IF	6.28 L-index

#	Paper	IF	Citations
217	Boundary layers in turbulent vertical convection at high Prandtl number. *Journal of Fluid Mechanics*, **2022**, 930,	3.7	1
216	Do increased flow rates in displacement ventilation always lead to better results?. *Journal of Fluid Mechanics*, **2022**, 932,	3.7	3
215	FSEI-GPU: GPU accelerated simulations of the fluid-structure-electrophysiology interaction in the left heart. *Computer Physics Communications*, **2022**, 273, 108248	4.2	2
214	Aspect Ratio Dependence of Heat Transfer in a Cylindrical Rayleigh-Bénard Cell.. *Physical Review Letters*, **2022**, 128, 084501	7.4	2
213	A fast computational model for the electrophysiology of the whole human heart. *Journal of Computational Physics*, **2022**, 457, 111084	4.1	0
212	DNS of passive scalars in turbulent pipe flow. *Journal of Fluid Mechanics*, **2022**, 940,	3.7	1
211	Towards realistic simulations of human cough: Effect of droplet emission duration and spread angle. *International Journal of Multiphase Flow*, **2021**, 103883	3.6	1
210	The effect of buoyancy driven convection on the growth and dissolution of bubbles on electrodes. *Electrochimica Acta*, **2021**, 139616	6.7	0
209	Droplets generated from toilets during urination as a possible vehicle of carbapenem-resistant Klebsiella pneumoniae. *Antimicrobial Resistance and Infection Control*, **2021**, 10, 149	6.2	
208	Flow organisation in laterally unconfined Rayleigh-Bénard turbulence. *Journal of Fluid Mechanics*, **2021**, 906,	3.7	4
207	Regime transitions in thermally driven high-Rayleigh number vertical convection. *Journal of Fluid Mechanics*, **2021**, 917,	3.7	3
206	You were not made to live like brutes, but to follow virtue and knowledge. *Annals of Thoracic Surgery*, **2021**,	2.7	
205	Instabilities driven by diffusiophoretic flow on catalytic surfaces. *Journal of Fluid Mechanics*, **2021**, 919,	3.7	4
204	Growth of respiratory droplets in cold and humid air. *Physical Review Fluids*, **2021**, 6,	2.8	20
203	Anatomic features in SCAD assessed by CCT: A propensity score matching case control study. *Annales De Cardiologie Et DiAngeiologie*, **2021**, 70, 161-167	0.5	1
202	A finite-difference scheme for three-dimensional incompressible flows in spherical coordinates. *Journal of Computational Physics*, **2021**, 424, 109848	4.1	2
201	The effect of Prandtl number on turbulent sheared thermal convection. *Journal of Fluid Mechanics*, **2021**, 910,	3.7	3

200	On the electrophysiology of the atrial fast conduction system: an uncertain quantification study. *Acta Mechanica Sinica/Lixue Xuebao*, **2021**, 37, 264-278	2	
199	Two-layer thermally driven turbulence: mechanisms for interface breakup. *Journal of Fluid Mechanics*, **2021**, 913,	3.7	4
198	Systolic anterior motion in hypertrophic cardiomyopathy: a fluid□structure interaction computational model. *Theoretical and Computational Fluid Dynamics*, **2021**, 35, 381-396	2.3	2
197	Heat transport enhancement in confined Rayleigh-B□ard convection feels the shape of the container (a). *Europhysics Letters*, **2021**, 135, 24004	1.6	3
196	Droplet plume emission during plasmonic bubble growth in ternary liquids. *Physical Review E*, **2021**, 104, 025101	2.4	
195	A fully Eulerian solver for the simulation of multiphase flows with solid bodies: Application to surface gravity waves. *Journal of Computational Physics*, **2021**, 438, 110355	4.1	1
194	Diffusion-Free Scaling in Rotating Spherical Rayleigh-B□ard Convection. *Geophysical Research Letters*, **2021**, 48, e2021GL095017	4.9	2
193	One-point statistics for turbulent pipe flow up to. *Journal of Fluid Mechanics*, **2021**, 926,	3.7	11
192	An efficient phase-field method for turbulent multiphase flows. *Journal of Computational Physics*, **2021**, 446, 110659	4.1	2
191	Extended Lifetime of Respiratory Droplets in a Turbulent Vapor Puff and Its Implications on Airborne Disease Transmission. *Physical Review Letters*, **2021**, 126, 034502	7.4	66
190	From zonal flow to convection rolls in Rayleigh□B□ard convection with free-slip plates. *Journal of Fluid Mechanics*, **2020**, 905,	3.7	17
189	From Rayleigh□B□ard convection to porous-media convection: how porosity affects heat transfer and flow structure. *Journal of Fluid Mechanics*, **2020**, 895,	3.7	11
188	Flow organization and heat transfer in turbulent wall sheared thermal convection. *Journal of Fluid Mechanics*, **2020**, 897, A22	3.7	14
187	Multiple states and transport properties of double-diffusive convection turbulence. *Proceedings of the National Academy of Sciences of the United States of America*, **2020**, 117, 14676-14681	11.5	7
186	Biomechanical properties and histomorphometric features of aortic tissue in patients with or without bicuspid aortic valve. *Journal of Thoracic Disease*, **2020**, 12, 2304-2316	2.6	2
185	Direct numerical simulations of spiral Taylor□ouette turbulence. *Journal of Fluid Mechanics*, **2020**, 887,	3.7	6
184	Convection-dominated dissolution for single and multiple immersed sessile droplets. *Journal of Fluid Mechanics*, **2020**, 892,	3.7	14
183	What rotation rate maximizes heat transport in rotating Rayleigh-B□ard convection with Prandtl number larger than one?. *Physical Review Fluids*, **2020**, 5,	2.8	5

182	Toward DNS of the Ultimate Regime of Rayleigh–Bénard Convection. *ERCOFTAC Series*, **2020**, 215-224	0.1	2
181	Heart rate effects on the ventricular hemodynamics and mitral valve kinematics. *Computers and Fluids*, **2020**, 197, 104359	2.8	3
180	Controlling secondary flow in Taylor–Couette turbulence through spanwise-varying roughness. *Journal of Fluid Mechanics*, **2020**, 883,	3.7	4
179	Periodically Modulated Thermal Convection. *Physical Review Letters*, **2020**, 125, 154502	7.4	16
178	Caffè latte: spontaneous layer formation in laterally cooled double diffusive convection. *Journal of Fluid Mechanics*, **2020**, 900,	3.7	2
177	Dynamic mode decomposition analysis of coherent structures in rotating plane Couette flow. *Journal of Physics: Conference Series*, **2020**, 1522, 012012	0.3	1
176	Multiple States in Turbulent Large-Aspect-Ratio Thermal Convection: What Determines the Number of Convection Rolls?. *Physical Review Letters*, **2020**, 125, 074501	7.4	21
175	Calculation of the mean velocity profile for strongly turbulent Taylor–Couette flow at arbitrary radius ratios. *Journal of Fluid Mechanics*, **2020**, 905,	3.7	1
174	Sensitivity analysis of an electrophysiology model for the left ventricle. *Journal of the Royal Society Interface*, **2020**, 17, 20200532	4.1	1
173	Non-monotonic transport mechanisms in vertical natural convection with dispersed light droplets. *Journal of Fluid Mechanics*, **2020**, 900,	3.7	3
172	Fluid–Structure-Electrophysiology interaction (FSEI) in the left-heart: A multi-way coupled computational model. *European Journal of Mechanics, B/Fluids*, **2020**, 79, 212-232	2.4	18
171	Modeling mitral valve stenosis: A parametric study on the stenosis severity level. *Journal of Biomechanics*, **2019**, 84, 218-226	2.9	5
170	Dynamics and evolution of turbulent Taylor rolls. *Journal of Fluid Mechanics*, **2019**, 870, 970-987	3.7	5
169	scaling enabled by multiscale wall roughness in Rayleigh–Bénard turbulence. *Journal of Fluid Mechanics*, **2019**, 869,	3.7	26
168	Left Ventricular Hemodynamics with an Implanted Assist Device: An In Vitro Fluid Dynamics Study. *Annals of Biomedical Engineering*, **2019**, 47, 1799-1814	4.7	6
167	Moving from momentum transfer to heat transfer – A comparative study of an advanced Graetz-Nusselt problem using immersed boundary methods. *Chemical Engineering Science*, **2019**, 198, 317-333	4.4	9
166	A mathematical model to evaluate hemodynamic effects of the graft anastomosis in coronary surgery. *Kardiochirurgia I Torakochirurgia Polska*, **2019**, 16, 106-108	0.3	1
165	Constructive interference in a network of elastically-bounded flapping plates. *Journal of Fluids and Structures*, **2019**, 90, 334-353	3.1	3

164	Direct numerical simulations of Taylor–Couette turbulence: the effects of sand grain roughness. *Journal of Fluid Mechanics*, **2019**, 873, 260-286	3.7	9
163	Convective heat transfer along ratchet surfaces in vertical natural convection. *Journal of Fluid Mechanics*, **2019**, 873, 1055-1071	3.7	5
162	Effect of sidewall on heat transfer and flow structure in Rayleigh–Bénard convection. *Journal of Fluid Mechanics*, **2019**, 881, 218-243	3.7	12
161	Shear/Buoyancy Interaction in Wall Bounded Turbulent Flows. *Springer Proceedings in Physics*, **2019**, 47-54	4.2	0
160	Zhu et al. Reply. *Physical Review Letters*, **2019**, 123, 259402	7.4	7
159	Effects of the wind on the breaking of modulated wave trains. *European Journal of Mechanics, B/Fluids*, **2019**, 73, 6-23	2.4	7
158	Flow-induced dissolution of femtoliter surface droplet arrays. *Lab on A Chip*, **2018**, 18, 1066-1074	7.2	12
157	Transition to the Ultimate Regime in Two-Dimensional Rayleigh-Bénard Convection. *Physical Review Letters*, **2018**, 120, 144502	7.4	64
156	Effects of mitral chordae tendineae on the flow in the left heart ventricle. *European Physical Journal E*, **2018**, 41, 27	1.5	7
155	Comparison of computational codes for direct numerical simulations of turbulent Rayleigh–Bénard convection. *Computers and Fluids*, **2018**, 166, 1-8	2.8	36
154	Controlling Heat Transport and Flow Structures in Thermal Turbulence Using Ratchet Surfaces. *Physical Review Letters*, **2018**, 120, 044501	7.4	26
153	Diffusive interaction of multiple surface nanobubbles: shrinkage, growth, and coarsening. *Soft Matter*, **2018**, 14, 2006-2014	3.6	41
152	Wall roughness induces asymptotic ultimate turbulence. *Nature Physics*, **2018**, 14, 417-423	16.2	28
151	Mixed insulating and conducting thermal boundary conditions in Rayleigh–Bénard convection. *Journal of Fluid Mechanics*, **2018**, 835, 491-511	3.7	18
150	AFiD-GPU: A versatile Navier–Stokes solver for wall-bounded turbulent flows on GPU clusters. *Computer Physics Communications*, **2018**, 229, 199-210	4.2	40
149	Growth dynamics of microbubbles on microcavity arrays by solvent exchange: Experiments and numerical simulations. *Journal of Colloid and Interface Science*, **2018**, 532, 103-111	9.3	15
148	Experimental investigation of heat transport in homogeneous bubbly flow. *Journal of Fluid Mechanics*, **2018**, 845, 226-244	3.7	17
147	Two-scalar turbulent Rayleigh–Bénard convection: numerical simulations and unifying theory. *Journal of Fluid Mechanics*, **2018**, 848, 648-659	3.7	5

146	Turbulent thermal superstructures in Rayleigh-Bénard convection. *Physical Review Fluids*, **2018**, 3,	2.8	66
145	Flow structure in healthy and pathological left ventricles with natural and prosthetic mitral valves. *Journal of Fluid Mechanics*, **2018**, 834, 271-307	3.7	30
144	Exploring the large-scale structure of Taylor–Couette turbulence through Large-Eddy Simulations. *Journal of Physics: Conference Series*, **2018**, 1001, 012017	0.3	1
143	Rough-wall turbulent Taylor-Couette flow: The effect of the rib height. *European Physical Journal E*, **2018**, 41, 125	1.5	1
142	Breaking of modulated wave groups: kinematics and energy dissipation processes. *Journal of Fluid Mechanics*, **2018**, 855, 267-298	3.7	7
141	Transition to ultimate Rayleigh–Bénard turbulence revealed through extended self-similarity scaling analysis of the temperature structure functions. *Journal of Fluid Mechanics*, **2018**, 851,	3.7	5
140	A fast moving least squares approximation with adaptive Lagrangian mesh refinement for large scale immersed boundary simulations. *Journal of Computational Physics*, **2018**, 375, 228-239	4.1	17
139	Physical mechanisms governing drag reduction in turbulent Taylor–Couette flow with finite-size deformable bubbles. *Journal of Fluid Mechanics*, **2018**, 849,	3.7	53
138	Mixed convection in turbulent channels with unstable stratification. *Journal of Fluid Mechanics*, **2017**, 821, 482-516	3.7	36
137	Statistics of turbulence in the energy-containing range of Taylor–Couette compared to canonical wall-bounded flows. *Journal of Fluid Mechanics*, **2017**, 830, 797-819	3.7	10
136	Roughness-Facilitated Local 1/2 Scaling Does Not Imply the Onset of the Ultimate Regime of Thermal Convection. *Physical Review Letters*, **2017**, 119, 154501	7.4	53
135	A parallel interaction potential approach coupled with the immersed boundary method for fully resolved simulations of deformable interfaces and membranes. *Journal of Computational Physics*, **2017**, 348, 567-590	4.1	36
134	Confined Rayleigh-Bénard, Rotating Rayleigh-Bénard, and Double Diffusive Convection: A Unifying View on Turbulent Transport Enhancement through Coherent Structure Manipulation. *Physical Review Letters*, **2017**, 119, 064501	7.4	38
133	Low Reynolds Number Flow Around Tori of Different Slenderness *Applied Sciences (Switzerland)*, **2017**, 7, 1108	2.6	1
132	Deformable ellipsoidal bubbles in Taylor-Couette flow with enhanced Euler-Lagrangian tracking. *Physical Review Fluids*, **2017**, 2,	2.8	9
131	Life stages of wall-bounded decay of Taylor-Couette turbulence. *Physical Review Fluids*, **2017**, 2,	2.8	3
130	Disentangling the origins of torque enhancement through wall roughness in Taylor–Couette turbulence. *Journal of Fluid Mechanics*, **2017**, 812, 279-293	3.7	9
129	Vertically Bounded Double Diffusive Convection in the Finger Regime: Comparing No-Slip versus Free-Slip Boundary Conditions. *Physical Review Letters*, **2016**, 117, 184501	7.4	9

128	Numerical simulation of the non-Newtonian blood flow through a mechanical aortic valve. *Theoretical and Computational Fluid Dynamics*, **2016**, 30, 129-138	2.3	27
127	On the suitability of second-order accurate discretizations for turbulent flow simulations. *European Journal of Mechanics, B/Fluids*, **2016**, 55, 242-245	2.4	17
126	Effect of roll number on the statistics of turbulent Taylor-Couette flow. *Physical Review Fluids*, **2016**, 1,	2.8	12
125	From convection rolls to finger convection in double-diffusive turbulence. *Proceedings of the National Academy of Sciences of the United States of America*, **2016**, 113, 69-73	11.5	19
124	Identifying coherent structures and vortex clusters in Taylor-Couette turbulence. *Journal of Physics: Conference Series*, **2016**, 708, 012006	0.3	3
123	Deformation and orientation statistics of neutrally buoyant sub-Kolmogorov ellipsoidal droplets in turbulent Taylor□Couette flow. *Journal of Fluid Mechanics*, **2016**, 809, 480-501	3.7	10
122	Scaling laws and flow structures of double diffusive convection in the finger regime. *Journal of Fluid Mechanics*, **2016**, 802, 667-689	3.7	16
121	Turbulent Taylor□Couette flow with stationary inner cylinder. *Journal of Fluid Mechanics*, **2016**, 799,	3.7	9
120	Transition to geostrophic convection: the role of the boundary conditions. *Journal of Fluid Mechanics*, **2016**, 799, 413-432	3.7	37
119	Drag reduction in numerical two-phase Taylor□Couette turbulence using an Euler□agrange approach. *Journal of Fluid Mechanics*, **2016**, 798, 411-435	3.7	13
118	The near-wall region of highly turbulent Taylor□Couette flow. *Journal of Fluid Mechanics*, **2016**, 788, 95-117	3.7	34
117	Direct numerical simulation of Taylor□Couette flow with grooved walls: torque scaling and flow structure. *Journal of Fluid Mechanics*, **2016**, 794, 746-774	3.7	24
116	Pulsating pipe flow with large-amplitude oscillations in the very high frequency regime. Part 2. Phase-averaged analysis. *Journal of Fluid Mechanics*, **2015**, 766, 272-296	3.7	12
115	A pencil distributed finite difference code for strongly turbulent wall-bounded flows. *Computers and Fluids*, **2015**, 116, 10-16	2.8	96
114	. *IEEE Sensors Journal*, **2015**, 15, 5208-5216	4	1
113	A numerical study on gas□iquid mass transfer in the rotor□tator spinning disc reactor. *Chemical Engineering Science*, **2015**, 129, 14-24	4.4	15
112	A multiple-resolution strategy for Direct Numerical Simulation of scalar turbulence. *Journal of Computational Physics*, **2015**, 301, 308-321	4.1	38
111	Plume emission statistics in turbulent Rayleigh□Bénard convection. *Journal of Fluid Mechanics*, **2015**, 772, 5-15	3.7	20

110	Salinity transfer in bounded double diffusive convection. *Journal of Fluid Mechanics*, **2015**, 768, 476-491	3.7	17
109	Logarithmic Mean Temperature Profiles and Their Connection to Plume Emissions in Turbulent Rayleigh-Bénard Convection. *Physical Review Letters*, **2015**, 115, 154501	7.4	23
108	Energy dissipation and transfer processes during the breaking of modulated wave trains. *Journal of Physics: Conference Series*, **2015**, 655, 012037	0.3	
107	Effects of the computational domain size on direct numerical simulations of Taylor-Couette turbulence with stationary outer cylinder. *Physics of Fluids*, **2015**, 27, 025110	4.4	31
106	Effect of velocity boundary conditions on the heat transfer and flow topology in two-dimensional Rayleigh-Bénard convection. *Physical Review E*, **2014**, 90, 013017	2.4	23
105	Sidewall effects in Rayleigh-Bénard convection. *Journal of Fluid Mechanics*, **2014**, 741, 1-27	3.7	21
104	Optimal Taylor-Couette flow: radius ratio dependence. *Journal of Fluid Mechanics*, **2014**, 747, 1-29	3.7	49
103	Turbulence decay towards the linearly stable regime of Taylor-Couette flow. *Journal of Fluid Mechanics*, **2014**, 748,	3.7	15
102	Deformation statistics of sub-Kolmogorov-scale ellipsoidal neutrally buoyant drops in isotropic turbulence. *Journal of Fluid Mechanics*, **2014**, 754, 184-207	3.7	27
101	Frontal Instabilities at Density-Shear Interfaces in Rotating Two-Layer Stratified Fluids. *Geophysical Monograph Series*, **2014**, 213-228	1.1	
100	Mixing in thermally stratified nonlinear spin-up with uniform boundary fluxes. *Physics of Fluids*, **2014**, 26, 096602	4.4	1
99	Boundary layer dynamics at the transition between the classical and the ultimate regime of Taylor-Couette flow. *Physics of Fluids*, **2014**, 26, 015114	4.4	48
98	Exploring the phase diagram of fully turbulent Taylor-Couette flow. *Journal of Fluid Mechanics*, **2014**, 761, 1-26	3.7	65
97	Modeling of vortex dynamics in the wake of a marine propeller. *Computers and Fluids*, **2013**, 73, 65-79	2.8	92
96	Optimal Taylor-Couette flow: direct numerical simulations. *Journal of Fluid Mechanics*, **2013**, 719, 14-46	3.7	65
95	Annular dilatation and loss of sino-tubular junction in aneurysmatic aorta: implications on leaflet quality at the time of surgery. A finite element study. *Interactive Cardiovascular and Thoracic Surgery*, **2013**, 17, 8-12	1.8	7
94	Heat transport in bubbling turbulent convection. *Proceedings of the National Academy of Sciences of the United States of America*, **2013**, 110, 9237-42	11.5	38
93	Logarithmic temperature profiles in turbulent Rayleigh-Bénard convection. *Physical Review Letters*, **2012**, 109, 114501	7.4	81

92	Pulsating pipe flow with large-amplitude oscillations in the very high frequency regime. Part 1. Time-averaged analysis. *Journal of Fluid Mechanics*, **2012**, 700, 246-282	3.7	20
91	Spatial distribution of heat flux and fluctuations in turbulent Rayleigh-Bénard convection. *Physical Review E*, **2012**, 86, 056315	2.4	17
90	Computational prediction of mechanical hemolysis in aortic valved prostheses. *European Journal of Mechanics, B/Fluids*, **2012**, 35, 47-53	2.4	23
89	Formation of columnar baroclinic vortices in thermally stratified nonlinear spin-up. *Journal of Fluid Mechanics*, **2012**, 702, 265-285	3.7	2
88	Unsteady Conjugate Heat Transfer Analysis of an Immersed Particle Innovative Heat Exchanger. *Journal of Thermal Science and Engineering Applications*, **2012**, 4,	1.9	2
87	Axially homogeneous Rayleigh-Bénard convection in a cylindrical cell. *Journal of Fluid Mechanics*, **2012**, 691, 52-68	3.7	20
86	Boundary layer structure in confined turbulent thermal convection. *Journal of Fluid Mechanics*, **2012**, 706, 1-4	3.7	3
85	Thermal boundary layer profiles in turbulent Rayleigh-Bénard convection in a cylindrical sample. *Physical Review E*, **2012**, 85, 027301	2.4	34
84	Prandtl and Rayleigh number dependence of heat transport in high Rayleigh number thermal convection. *Journal of Fluid Mechanics*, **2011**, 688, 31-43	3.7	98
83	Evaluation of prosthetic-valved devices by means of numerical simulations. *Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences*, **2011**, 369, 2502-9	3	9
82	On the effect of aortic root geometry on the coronary entry-flow after a bileaflet mechanical heart valve implant: a numerical study. *Acta Mechanica*, **2011**, 216, 147-163	2.1	26
81	A Non-Adiabatic Flamelet Progress-Variable Approach for LES of Turbulent Premixed Flames. *Flow, Turbulence and Combustion*, **2011**, 86, 667-688	2.5	15
80	Large-eddy simulations in mixed-flow pumps using an immersed-boundary method. *Computers and Fluids*, **2011**, 47, 33-43	2.8	58
79	Fluid-structure interaction of deformable aortic prostheses with a bileaflet mechanical valve. *Journal of Biomechanics*, **2011**, 44, 1684-90	2.9	18
78	Modification of turbulence in Rayleigh-Bénard convection by phase change. *New Journal of Physics*, **2011**, 13, 025002	2.9	14
77	Effect of vapor bubbles on velocity fluctuations and dissipation rates in bubbly Rayleigh-Bénard convection. *Physical Review E*, **2011**, 84, 036312	2.4	16
76	Fluid velocity fluctuations in a collision of a sphere with a wall. *Physics of Fluids*, **2011**, 23, 063301	4.4	5
75	Fluid Mechanics in Aortic Prostheses After a Bentall Procedure **2011**, 371-376		

74	Radial boundary layer structure and Nusselt number in Rayleigh–Bénard convection. *Journal of Fluid Mechanics*, **2010**, 643, 495-507	3.7	174
73	Numerical simulations of nonlinear thermally stratified spin-up in a circular cylinder. *Physics of Fluids*, **2010**, 22, 116602	4.4	3
72	Numerical simulations of Rayleigh–Bénard convection for Prandtl numbers between 10−1 and 104 and Rayleigh numbers between 105 and 109. *Journal of Fluid Mechanics*, **2010**, 662, 409-446	3.7	53
71	Three-dimensional vortex visualization in stratified spin-up. *Journal of Visualization*, **2010**, 13, 81-84	1.6	2
70	Numerical Simulations of Thermal Convection at High Prandtl Numbers. *ERCOFTAC Series*, **2010**, 389-394	0.1	
69	Numerical Experiments on Turbulent Thermal Convection. *ERCOFTAC Series*, **2010**, 329-336	0.1	
68	Prandtl-, Rayleigh-, and Rossby-number dependence of heat transport in turbulent rotating Rayleigh-Bénard convection. *Physical Review Letters*, **2009**, 102, 044502	7.4	90
67	Prandtl-, Rayleigh-, and Rossby-number dependence of heat transport in turbulent Rotating Rayleigh-Bénard convection. *Springer Proceedings in Physics*, **2009**, 529-532	0.2	
66	A numerical model for the analysis of unsteady train braking and releasing manoeuvres. *Proceedings of the Institution of Mechanical Engineers, Part F: Journal of Rail and Rapid Transit*, **2009**, 223, 305-317	1.4	27
65	Specific roles of fluid properties in non-Boussinesq thermal convection at the Rayleigh number of 2 ×10 8. *Europhysics Letters*, **2009**, 86, 14006	1.6	9
64	Turbulent Flow and Dispersion of Inertial Particles in a Confined Jet Issued by a Long Cylindrical Pipe. *Flow, Turbulence and Combustion*, **2009**, 82, 1-23	2.5	12
63	Ekman pumping and intermittent particle resuspension in a stirred tank reactor. *Chemical Engineering Research and Design*, **2009**, 87, 557-564	5.5	6
62	Direct numerical simulation of the pulsatile flow through an aortic bileaflet mechanical heart valve. *Journal of Fluid Mechanics*, **2009**, 622, 259-290	3.7	97
61	Heat transfer mechanisms in bubbly Rayleigh-Bénard convection. *Physical Review E*, **2009**, 80, 026304	2.4	32
60	Heat transfer mechanisms in bubbly Rayleigh-Bénard convection. *Springer Proceedings in Physics*, **2009**, 355-357	0.2	
59	A comparison of turbulent thermal convection between conditions of constant temperature and constant heat flux. *Journal of Fluid Mechanics*, **2008**, 595, 203-219	3.7	64
58	Numerical simulations of flow reversal in Rayleigh-Bénard convection. *Europhysics Letters*, **2008**, 81, 64008	1.6	17
57	Numerical and experimental investigation of structure-function scaling in turbulent Rayleigh-Bénard convection. *Physical Review E*, **2008**, 77, 016302	2.4	54

56	Non-Boussinesq convection at moderate Rayleigh numbers in low temperature gaseous helium. *Physica Scripta*, **2008**, T132, 014053	2.6	7
55	Laboratory-numerical studies of stratified spin-up flows. *Environmental Fluid Mechanics*, **2008**, 8, 535-541	2.2	
54	Transitional regimes and rotation effects in Rayleigh–Bénard convection in a slender cylindrical cell. *European Journal of Mechanics, B/Fluids*, **2007**, 26, 1-14	2.4	30
53	Numerical Experiments of Turbulent Thermal Convection at High Rayleigh Numbers **2007**, 177-180		
52	Direct numerical simulation of turbulent particle dispersion in an unbaffled stirred-tank reactor. *Chemical Engineering Science*, **2006**, 61, 2843-2851	4.4	48
51	Turbulent thermal convection over grooved plates. *Journal of Fluid Mechanics*, **2006**, 557, 307	3.7	47
50	Mean flow structure in thermal convection in a cylindrical cell of aspect ratio one half. *Journal of Fluid Mechanics*, **2006**, 548, 1	3.7	35
49	Combined Immersed Boundary/Large-Eddy-Simulations of Incompressible Three Dimensional Complex Flows. *Flow, Turbulence and Combustion*, **2006**, 77, 3-26	2.5	52
48	Turbulent thermal convection at high Rayleigh numbers for a Boussinesq fluid of constant Prandtl number. *Physics of Fluids*, **2005**, 17, 121701	4.4	63
47	Numerical experiments on flapping foils mimicking fish-like locomotion. *Physics of Fluids*, **2005**, 17, 113601	4.4	86
46	Vortex Structures Generated by a Finite-span Oscillating Foil **2005**,		6
45	Fluid–particle flow simulation by averaged continuous model. *Computers and Fluids*, **2005**, 34, 1040-1061	2.8	11
44	Numerical Simulations of Blood Flow Inside a Mechanical Heart Valve. *AIP Conference Proceedings*, **2005**,	0	1
43	Turbulent thermal convection over rough surfaces. *AIP Conference Proceedings*, **2005**,	0	1
42	Large-Eddy-Simulation of Complex Flows Using the Immersed Boundary Method **2005**, 17-30		
41	Flow in an impeller-stirred tank using an immersed-boundary method. *AICHE Journal*, **2004**, 50, 1109-1118	3.6	48
40	Mechanisms for selective radial dispersion of microparticles in the transitional region of a confined turbulent round jet. *International Journal of Multiphase Flow*, **2004**, 30, 1389-1417	3.6	36
39	Temporal statistics in high Rayleigh number convective turbulence. *European Journal of Mechanics, B/Fluids*, **2004**, 23, 427-442	2.4	23

38	Effects of nonperfect thermal sources in turbulent thermal convection. *Physics of Fluids*, **2004**, 16, 1965-1979	4.4	89
37	RANS Simulations of Passive and Active Drag Reduction Devices for a Road Vehicle. *Lecture Notes in Applied and Computational Mechanics*, **2004**, 267-275	0.3	1
36	Evolution and instability of monopolar vortices in a stratified fluid. *Physics of Fluids*, **2003**, 15, 1033-1045	4.4	16
35	Turbulent thermal convection in a closed domain: viscous boundary layer and mean flow effects. *European Physical Journal B*, **2003**, 35, 133-141	1.2	21
34	Numerical experiments on strongly turbulent thermal convection in a slender cylindrical cell. *Journal of Fluid Mechanics*, **2003**, 477,	3.7	207
33	Immersed boundary technique for turbulent flow simulations. *Applied Mechanics Reviews*, **2003**, 56, 331-347	3.7	268
32	Large Eddy Simulation of a Road Vehicle with Drag-Reduction Devices. *AIAA Journal*, **2002**, 40, 2447-2455	2.1	57
31	Structure function exponents and probability density function of the velocity difference in turbulence. *Physics of Fluids*, **2002**, 14, 906-909	4.4	5
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2	Extended lifetime of respiratory droplets in a turbulent vapour puff and its implications on airborne disease transmission	8
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