

Gregory John Sheard

List of Publications by Year in descending order

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67
papers

1,347
citations

361045

20
h-index

377514

34
g-index

67
all docs

67
docs citations

67
times ranked

812
citing authors

#	ARTICLE	IF	CITATIONS
1	Cylinders with square cross-section: wake instabilities with incidence angle variation. Journal of Fluid Mechanics, 2009, 630, 43-69.	1.4	136
2	From spheres to circular cylinders: the stability and flow structures of bluff ring wakes. Journal of Fluid Mechanics, 2003, 492, 147-180.	1.4	109
3	From spheres to circular cylinders: non-axisymmetric transitions in the flow past rings. Journal of Fluid Mechanics, 2004, 506, 45-78.	1.4	70
4	Dynamics and heat transfer in a quasi-two-dimensional MHD flow past a circular cylinder in a duct at high Hartmann number. International Journal of Heat and Mass Transfer, 2011, 54, 1091-1100.	2.5	58
5	Computations of the drag coefficients for low-Reynolds-number flow past rings. Journal of Fluid Mechanics, 2005, 526, 257-275.	1.4	57
6	Buoyancy-driven flows beyond the Boussinesq approximation: A brief review. International Communications in Heat and Mass Transfer, 2021, 125, 105316.	2.9	57
7	Wake transition of two-dimensional cylinders and axisymmetric bluff bodies. Journal of Fluids and Structures, 2006, 22, 793-806.	1.5	53
8	Horizontal convection: Effect of aspect ratio on Rayleigh number scaling and stability. Applied Mathematical Modelling, 2011, 35, 1647-1655.	2.2	46
9	Wake stability features behind a square cylinder: Focus on small incidence angles. Journal of Fluids and Structures, 2011, 27, 734-742.	1.5	42
10	Natural convection heat transfer utilizing nanofluid in a cavity with a periodic side-wall temperature in the presence of a magnetic field. International Communications in Heat and Mass Transfer, 2019, 104, 127-135.	2.9	36
11	Flow dynamics and wall shear-stress variation in a fusiform aneurysm. Journal of Engineering Mathematics, 2009, 64, 379-390.	0.6	33
12	Heat transfer in a high Hartmann number MHD duct flow with a circular cylinder placed near the heated side-wall. International Journal of Heat and Mass Transfer, 2013, 67, 944-954.	2.5	33
13	The evolution of a subharmonic mode in a vortex street. Journal of Fluid Mechanics, 2005, 534, 23-38.	1.4	32
14	Two-dimensional wake dynamics behind cylinders with triangular cross-section under incidence angle variation. Journal of Fluids and Structures, 2016, 63, 302-324.	1.5	31
15	Erythrocyte deformation in a microfluidic cross-slot channel. RSC Advances, 2014, 4, 36079.	1.7	30
16	Swirl mixing at microfluidic junctions due to low frequency side channel fluidic perturbations. Sensors and Actuators B: Chemical, 2010, 150, 811-818.	4.0	27
17	Enhancing heat transfer in a high Hartmann number magnetohydrodynamic channel flow via torsional oscillation of a cylindrical obstacle. Physics of Fluids, 2012, 24, .	1.6	26
18	Pressure-driven flow past spheres moving in a circular tube. Journal of Fluid Mechanics, 2007, 592, 233-262.	1.4	24

#	ARTICLE	IF	CITATIONS
19	Measurement of instantaneous velocity and surface topography in the wake of a cylinder at low Reynolds number. <i>Journal of Fluids and Structures</i> , 2008, 24, 1271-1277.	1.5	24
20	Linear stability and energetics of rotating radial horizontal convection. <i>Journal of Fluid Mechanics</i> , 2016, 795, 1-35.	1.4	21
21	The origin of instability in enclosed horizontally driven convection. <i>International Journal of Heat and Mass Transfer</i> , 2016, 94, 509-515.	2.5	21
22	Optimal transient disturbances behind a circular cylinder in a quasi-two-dimensional magnetohydrodynamic duct flow. <i>Physics of Fluids</i> , 2012, 24, .	1.6	20
23	Heat transfer enhancement using rectangular vortex promoters in confined quasi-two-dimensional magnetohydrodynamic flows. <i>International Journal of Heat and Mass Transfer</i> , 2016, 93, 186-199.	2.5	20
24	Asymmetric structure and non-linear transition behaviour of the wakes of toroidal bodies. <i>European Journal of Mechanics, B/Fluids</i> , 2004, 23, 167-179.	1.2	19
25	Stability of the wakes of cylinders with triangular cross-sections. <i>Journal of Fluid Mechanics</i> , 2018, 844, 721-745.	1.4	19
26	Transitions and scaling in horizontal convection driven by different temperature profiles. <i>International Journal of Thermal Sciences</i> , 2020, 148, 106166.	2.6	17
27	Experimental study of simultaneous measurement of velocity and surface topography: in the wake of a circular cylinder at low Reynolds number. <i>Experiments in Fluids</i> , 2011, 50, 587-595.	1.1	16
28	Combining an obstacle and electrically driven vortices to enhance heat transfer in a quasi-two-dimensional MHD duct flow. <i>Journal of Fluid Mechanics</i> , 2016, 792, 364-396.	1.4	16
29	Linear stability of horizontal, laminar fully developed, quasi-two-dimensional liquid metal duct flow under a transverse magnetic field and heated from below. <i>Physical Review Fluids</i> , 2017, 2, .	1.0	16
30	The effect of rotation on radial horizontal convection and Nusselt number scaling in a cylindrical container. <i>International Journal of Heat and Mass Transfer</i> , 2014, 77, 46-59.	2.5	14
31	Effect of vortex promoter shape on heat transfer in MHD duct flow with axial magnetic field. <i>International Journal of Thermal Sciences</i> , 2018, 134, 453-464.	2.6	14
32	Spatial evolution of a quasi-two-dimensional $K\tilde{\alpha}_1 m\tilde{\alpha}_1 n$ vortex street subjected to a strong uniform magnetic field. <i>Physics of Fluids</i> , 2015, 27, .	1.6	12
33	Linear stability of confined flow around a 180-degree sharp bend. <i>Journal of Fluid Mechanics</i> , 2017, 822, 813-847.	1.4	12
34	Symmetry breaking and instability mechanisms in medium depth torsionally driven open cylinder flows. <i>Journal of Fluid Mechanics</i> , 2011, 672, 521-544.	1.4	11
35	Effect of Hemodynamic Forces on Platelet Aggregation Geometry. <i>Annals of Biomedical Engineering</i> , 2011, 39, 1403-1413.	1.3	11
36	Feedback control system simulator for the control of biological cells in microfluidic cross slots and integrated microfluidic systems. <i>Lab on A Chip</i> , 2011, 11, 2343.	3.1	10

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37	High resolution optical calorimetry for synchrotron microbeam radiation therapy. <i>Journal of Instrumentation</i> , 2011, 6, P03003-P03003.	0.5	10
38	Cardiogenic Airflow in the Lung Revealed Using Synchrotron-Based Dynamic Lung Imaging. <i>Scientific Reports</i> , 2018, 8, 4930.	1.6	10
39	Natural convection and entropy generation in square and skew cavities due to large temperature differences: A Gay-Lussac type vorticity stream function approach. <i>International Journal for Numerical Methods in Fluids</i> , 2021, 93, 2396-2420.	0.9	10
40	Stability characteristics of a counter-rotating unequal-strength Batchelor vortex pair. <i>Journal of Fluid Mechanics</i> , 2012, 696, 374-401.	1.4	9
41	Heat transfer augmentation of a quasi-two-dimensional MHD duct flow via electrically driven vortices. <i>Numerical Heat Transfer; Part A: Applications</i> , 2016, 70, 847-869.	1.2	9
42	A centrifugal buoyancy formulation for Boussinesq type natural convection flows applied to the annulus cavity problem. <i>International Journal for Numerical Methods in Fluids</i> , 2021, 93, 683-702.	0.9	9
43	Linear stability analysis of a shear layer induced by differential coaxial rotation within a cylindrical enclosure. <i>Journal of Fluid Mechanics</i> , 2014, 738, 299-334.	1.4	7
44	Non-axisymmetric flows in a differential-disk rotating system. <i>Journal of Fluid Mechanics</i> , 2015, 775, 349-386.	1.4	7
45	Horizontal convection in shallow enclosures scales with height, not length, at low Rayleigh numbers. <i>International Communications in Heat and Mass Transfer</i> , 2019, 109, 104308.	2.9	7
46	From three-dimensional to quasi-two-dimensional: transient growth in magnetohydrodynamic duct flows. <i>Journal of Fluid Mechanics</i> , 2019, 861, 382-406.	1.4	7
47	Linear stability analysis of horizontal convection under a Gay-Lussac type approximation. <i>International Journal of Heat and Mass Transfer</i> , 2022, 182, 121929.	2.5	7
48	Short-wave instabilities on a vortex pair of unequal strength circulation ratio. <i>Applied Mathematical Modelling</i> , 2011, 35, 1581-1590.	2.2	6
49	Effect of enclosure height on the structure and stability of shear layers induced by differential rotation. <i>Journal of Fluid Mechanics</i> , 2015, 765, 45-81.	1.4	6
50	Probing horizontal convection instability via perturbation of the forcing boundary layer using a synthetic jet. <i>International Journal of Thermal Sciences</i> , 2016, 110, 251-260.	2.6	5
51	An entropy generation analysis of horizontal convection under the centrifugal buoyancy approximation. <i>International Communications in Heat and Mass Transfer</i> , 2022, 133, 105923.	2.9	5
52	The effects of vortex breakdown bubbles on the mixing environment inside a base driven bioreactor. <i>Applied Mathematical Modelling</i> , 2011, 35, 1628-1637.	2.2	4
53	Heat transfer enhancement in quasi-two-dimensional magnetohydrodynamic duct flows using repeated flow-facing wedge-shaped protrusions. <i>International Journal of Heat and Mass Transfer</i> , 2021, 171, 121066.	2.5	4
54	An efficient and simplified Gay-Lussac approach in secondary variables form for the non-Boussinesq simulation of free convection problems. <i>International Journal for Numerical Methods in Fluids</i> , 2021, 93, 3264-3279.	0.9	4

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55	Subcritical route to turbulence via the Orr mechanism in a quasi-two-dimensional boundary layer. <i>Physical Review Fluids</i> , 2020, 5, .	1.0	4
56	Energy saving and performance analysis of air-cooled photovoltaic panels. <i>International Journal of Energy Research</i> , 2022, 46, 4825-4834.	2.2	4
57	Surface topography of jet shock cells in a hydraulic analogy. <i>Journal of Visualization</i> , 2010, 13, 175-176.	1.1	3
58	Application of Particle Image Velocimetry and Reference Image Topography to jet shock cells using the hydraulic analogy. <i>Experiments in Fluids</i> , 2011, 51, 543-551.	1.1	3
59	Transition to turbulence in quasi-two-dimensional MHD flow driven by lateral walls. <i>Physical Review Fluids</i> , 2021, 6, .	1.0	3
60	A simplified and efficient Gay-Lussac approach for non-Boussinesq treatment of natural convection problems. <i>Numerical Heat Transfer, Part B: Fundamentals</i> , 2021, 80, 115-135.	0.6	3
61	Short-wave instability growth in closely spaced vortex pairs. <i>Progress in Computational Fluid Dynamics</i> , 2010, 10, 276.	0.1	2
62	Polynomial element velocimetry (PEV): a technique for continuous in-plane velocity and velocity gradient measurements for low Reynolds number flows. <i>Measurement Science and Technology</i> , 2012, 23, 105304.	1.4	2
63	Stability of flow in a channel with repeated flow-facing wedge-shaped protrusions. <i>Journal of Fluid Mechanics</i> , 2022, 941, .	1.4	2
64	Haemodynamic forces on in vitro thrombi: a numerical analysis. <i>Medical and Biological Engineering and Computing</i> , 2012, 50, 493-502.	1.6	1
65	Stability of pulsatile quasi-two-dimensional duct flows under a transverse magnetic field. <i>Physical Review Fluids</i> , 2021, 6, .	1.0	1
66	Preface to special issue of selected papers from CFD in the minerals and process industries. <i>Applied Mathematical Modelling</i> , 2011, 35, 2051.	2.2	0
67	Application of a novel diffraction-based tomography method for imaging biological samples. , 2012, , .		0