Ramon Fernandez-Feria

List of Publications by Year
in descending order

80	877	516710 16	610901 24
papers	citations	h-index	g-index

88	88	88	496
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Numerical study of the propulsive performance of two-dimensional pitching foils at very high frequencies: scaling laws and turbulence effects. International Journal of Numerical Methods for Heat and Fluid Flow, 2022, 32, 1602-1617.	2.8	4
2	Energy Harvesting and Propulsion of Pitching Airfoils with Passive Heave and Deformation. AIAA Journal, 2022, 60, 783-797.	2.6	3
3	Flutter stability analysis of an elastically supported flexible foil. Application to the energy harvesting of a fully-passive flexible flapping-foil of small amplitude. Journal of Fluids and Structures, 2022, 109, 103454.	3.4	7
4	Numerical validation of simple non-stationary models for self-propelled pitching foils. Ocean Engineering, 2022, 260, 111973.	4.3	5
5	Propulsion performance of tandem flapping foils with chordwise prescribed deflection from linear potential theory. Physical Review Fluids, 2021, 6, .	2.5	8
6	Analytical results for the propulsion performance of a flexible foil with prescribed pitching and heaving motions and passive small deflection. Journal of Fluid Mechanics, 2021, 910, .	3.4	18
7	Propulsion and energy harvesting performances of a flexible thin airfoil undergoing forced heaving motion with passive pitching and deformation of small amplitude. Journal of Fluids and Structures, 2021, 102, 103255.	3.4	6
8	Propulsion enhancement of flexible plunging foils: Comparing linear theory predictions with high-fidelity CFD results. Ocean Engineering, 2021, 235, 109331.	4.3	7
9	Aerodynamics of Heaving and Pitching Foils in Tandem from Linear Potential Theory. AIAA Journal, 2020, 58, 37-52.	2.6	8
10	Propulsion of a foil undergoing a flapping undulatory motion from the impulse theory in the linear potential limit. Journal of Fluid Mechanics, 2020, 883, .	3.4	17
11	Effects of Unsteady Aerodynamics on Gliding Stability of a Bio-Inspired UAV. , 2020, , .		1
12	A Linearized Model for an Ornithopter in Gliding Flight: Experiments and Simulations. , 2020, , .		4
13	Effect of the pivot point location on the propulsive performance of a pitching foil. Journal of Fluids and Structures, 2020, 97, 103089.	3.4	4
14	A Simple Model for Gliding and Low-Amplitude Flapping Flight of a Bio-Inspired UAV. , 2019, , .		10
15	On the origin and structure of a stationary circular hydraulic jump. Physics of Fluids, 2019, 31, .	4.0	20
16	On analytical approximations for the structure of a shock wave in a fully ionized plasma. Physics of Plasmas, 2019, 26, 082118.	1.9	3
17	Comparison of aerodynamic models for two-dimensional pitching foils with experimental data. Physics of Fluids, 2019, 31, .	4.0	12
18	On the added-mass force and moment and the vortex projection method. Application to thin airfoils. Fluid Dynamics Research, 2019, 51, 035509.	1.3	2

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19	Maximum propulsive efficiency of two pitching and plunging plates in tandem at low Reynolds number. International Journal of Numerical Methods for Heat and Fluid Flow, 2019, 29, 4013-4033.	2.8	6
20	Assessment of two vortex formulations for computing forces of a flapping foil at high Reynolds numbers. Physical Review Fluids, 2019, 4, .	2.5	8
21	Unsteady thrust, lift and moment of a two-dimensional flapping thin airfoil in the presence of leading-edge vortices: a first approximation from linear potential theory. Journal of Fluid Mechanics, 2018, 851, 344-373.	3.4	16
22	Stability analysis of the interface between two weak viscoelastic liquids under periodic oscillations. Physics of Fluids, 2017, 29, .	4.0	2
23	On the autorotation of animal wings. Journal of the Royal Society Interface, 2017, 14, 20160870.	3.4	4
24	Effect of the angle of attack on the transient lift during the interaction of a vortex with a flat plate. Potential theory and experimental results. Journal of Fluids and Structures, 2017, 74, 130-141.	3.4	5
25	Note on optimum propulsion of heaving and pitching airfoils from linear potential theory. Journal of Fluid Mechanics, 2017, 826, 781-796.	3.4	31
26	Buoyancy effects in a wall jet over a heated horizontal plate. Journal of Fluid Mechanics, 2016, 793, 21-40.	3.4	2
27	Analysis of the aerodynamic interaction between two plunging plates in tandem at low Reynolds number for maximum propulsive efficiency. Journal of Fluids and Structures, 2016, 63, 351-373.	3.4	17
28	Heavy gas relaxation in a light gas shock wave at small Prandtl number. Physical Review E, 2016, 94, 033108.	2.1	2
29	Linearized propulsion theory of flapping airfoils revisited. Physical Review Fluids, 2016, 1, .	2.5	35
30	Purely pulsating flow of a viscoelastic fluid in a pipe revisited: The limit of large Womersley number. Journal of Non-Newtonian Fluid Mechanics, 2015, 217, 32-36.	2.4	6
31	On the development of lift and drag in a rotating and translating cylinder. Journal of Fluids and Structures, 2015, 54, 868-885.	3.4	10
32	Vortex flow structures and interactions for the optimum thrust efficiency of a heaving airfoil at different mean angles of attack. Physics of Fluids, 2015, 27, .	4.0	41
33	A pseudospectral based method of lines for solving integro-differential boundary-layer equations. Application to the mixed convection over a heated horizontal plate. Applied Mathematics and Computation, 2014, 242, 388-396.	2.2	3
34	Separation in the mixed convection boundary-layer radial flow over a constant temperature horizontal plate. Physics of Fluids, 2014, 26, 103603.	4.0	8
35	Experimental study of the aerodynamic characteristics of a low-aspect-ratio flat plate array in a configuration of interest for a tidal energy converter. Journal of Fluids and Structures, 2014, 48, 487-496.	3.4	6
36	High accuracy numerical methods for the Gardnerâ€“Ostrovsky equation. Applied Mathematics and Computation, 2014, 240, 140-148.	2.2	1

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37	Experimental evidence of convective and absolute instabilities in rotating Hagenâ€“Poiseuille flow. Journal of Fluid Mechanics, 2013, 716, .	3.4	7
38	Lift and drag characteristics of a cascade of flat plates in a configuration of interest for a tidal current energy converter: Numerical simulations analysis. Journal of Renewable and Sustainable Energy, 2013, 5, .	2.0	8
39	Dynamics of the wing-tip vortex in the near field of a NACA 0012 aerofoil. Aeronautical Journal, 2011, 115, 229-239.	1.6	45
40	Experimental study on sand bed excavation by impinging swirling jets. Journal of Hydraulic Research/De Recherches Hydrauliques, 2011, 49, 601-610.	1.7	21
41	Structure of trailing vortices: Comparison between particle image velocimetry measurements and theoretical models. Physics of Fluids, 2011, 23, .	4.0	47
42	Quasicylindrical description of a swirling light gas jet discharging into a heavier ambient gas. Physics of Fluids, 2010, 22, 113601.	4.0	3
43	Three-dimensional transitions in a swirling jet impinging against a solid wall at moderate Reynolds numbers. Physics of Fluids, 2009, 21, 034107.	4.0	3
44	A numerical method for the study of nonlinear stability of axisymmetric flows based on the vector potential. Journal of Computational Physics, 2008, 227, 3307-3321.	3.8	3
45	Transport of suspended sediment under the damâ€break flow on an inclined plane bed of arbitrary slope. Hydrological Processes, 2008, 22, 2615-2633.	2.6	17
46	Stability of the boundary layer flow on a long thin rotating cylinder. Physics of Fluids, 2008, 20, .	4.0	10
47	Three-dimensional structure of confined swirling jets at moderately large Reynolds numbers. Physics of Fluids, 2008, 20, .	4.0	12
48	Interaction of an unconfined vortex with a solid surface. Physics of Fluids, 2007, 19, 067104.	4.0	8
49	Spatial stability and the onset of absolute instability of Batchelor's vortex for high swirl numbers. Journal of Fluid Mechanics, 2007, 583, 27-43.	3.4	26
50	Dam-Break Flow for Arbitrary Slopes of the Bottom. Journal of Engineering Mathematics, 2006, 54, 319-331.	1.2	24
51	Nonlinear instabilities in a vertical pipe flow discharging from a cylindrical container. Physics of Fluids, 2006, 18, 024101.	4.0	5
52	On the development of three-dimensional vortex breakdown in cylindrical regions. Physics of Fluids, 2006, 18, 084105.	4.0	15
53	A Cartesian grid finite-difference method for 2D incompressible viscous flows in irregular geometries. Journal of Computational Physics, 2005, 204, 302-318.	3.8	24
54	Nonlinear waves in the pressure driven flow in a finite rotating pipe. Physics of Fluids, 2005, 17, 014104.	4.0	13

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55	Nonparallel spatial stability of the boundary layer induced by Longâ€™s vortex on a solid plane perpendicular to its axis. Physical Review E, 2005, 72, 036305.	2.1	0
56	An explicit projection method for solving incompressible flows driven by a pressure difference. Computers and Fluids, 2004, 33, 463-483.	2.5	17
57	On the efficiency of a numerical method with periodic time strides for solving incompressible flows. Journal of Computational Physics, 2003, 186, 212-229.	3.8	1
58	Nonparallel stability of the flow in an axially rotating pipe. Fluid Dynamics Research, 2003, 32, 261-281.	1.3	6
59	Stability analysis of boundary layer flow due to the presence of a small hole on a surface. Physical Review E, 2002, 65, 036307.	2.1	2
60	The onset of absolute instability of rotating Hagenâ€“Poiseuille flow: A spatial stability analysis. Physics of Fluids, 2002, 14, 3087-3097.	4.0	25
61	On the appearance of swirl in a confined sink flow. Physics of Fluids, 2000, 12, 3082.	4.0	5
62	Axisymmetric instabilities of BÃ¶dewadt flow. Physics of Fluids, 2000, 12, 1730-1739.	4.0	16
63	Boundary layer induced by a conical vortex. Quarterly Journal of Mechanics and Applied Mathematics, 2000, 53, 609-628.	1.3	3
64	Conically similar swirling flows at high Reynolds numbers. Quarterly Journal of Mechanics and Applied Mathematics, 1999, 52, 1-53.	1.3	21
65	Inviscid evolution of incompressible swirling flows in pipes: The dependence of the flow structure upon the inlet velocity field. European Journal of Mechanics, B/Fluids, 1999, 18, 1067-1084.	2.5	1
66	Inviscid vortex breakdown models in pipes. Zeitschrift Fur Angewandte Mathematik Und Physik, 1999, 50, 698.	1.4	6
67	Nonparallel linear stability analysis of Longâ€™s vortex. Physics of Fluids, 1999, 11, 1114-1126.	4.0	11
68	Viscous and inviscid instabilities of non-parallel self-similar axisymmetric vortex cores. Journal of Fluid Mechanics, 1996, 323, 339-365.	3.4	10
69	The role of liquid viscosity and electrical conductivity on the motions inside Taylor cones in E.H.D. spraying of liquids. Journal of Aerosol Science, 1996, 27, S175-S176.	3.8	11
70	Solution breakdown in a family of self-similar nearly inviscid axisymmetric vortices. Journal of Fluid Mechanics, 1995, 305, 77-91.	3.4	29
71	Nonlocal electron heat relaxation in a plasma shock at arbitrary ionization number. Physics of Fluids B, 1993, 5, 1485-1490.	1.7	3
72	Selfâ€consistent, nonlocal electron heat flux at arbitrary ion charge number. Physics of Fluids B, 1992, 4, 3579-3585.	1.7	10

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73	Nonlocal electron heat flux revisited. Physics of Fluids B, 1990, 2, 2519-2521.	1.7	7
74	Hypersonic expansion of the Fokkerâ€“Planck equation. Physics of Fluids A, Fluid Dynamics, 1989, 1, 394-402.	1.6	2
75	Kinetic theory of binary gas mixtures with large mass disparity. Physics of Fluids, 1987, 30, 740.	1.4	19
76	Interspecies transfer of momentum and energy in disparate-mass gas mixtures. Physics of Fluids, 1987, 30, 45.	1.4	6
77	Fokker-Planck and Langevin equations for arbitrary slip velocities. Physical Review A, 1987, 36, 4940-4944.	2.5	2
78	Two-fluid Chapmanâ€“Enskog theory for binary gas mixtures. Physics of Fluids, 1987, 30, 2063.	1.4	8
79	Shock wave structure in gas mixtures with large mass disparity. Journal of Fluid Mechanics, 1987, 179, 21-40.	3.4	18
80	Solution of the Fokker-Planck equation for the shock wave problem. Journal of Statistical Physics, 1987, 48, 901-917.	1.2	4