

Charles H K Williamson

List of Publications by Year in descending order

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65
papers

12,445
citations

76196

40
h-index

114278

63
g-index

68
all docs

68
docs citations

68
times ranked

3568
citing authors

#	ARTICLE	IF	CITATIONS
1	VORTEX-INDUCED VIBRATIONS. Annual Review of Fluid Mechanics, 2004, 36, 413-455.	10.8	1,890
2	Oblique and parallel modes of vortex shedding in the wake of a circular cylinder at low Reynolds numbers. Journal of Fluid Mechanics, 1989, 206, 579-627.	1.4	936
3	MOTIONS, FORCES AND MODE TRANSITIONS IN VORTEX-INDUCED VIBRATIONS AT LOW MASS-DAMPING. Journal of Fluids and Structures, 1999, 13, 813-851.	1.5	901
4	Modes of vortex formation and frequency response of a freely vibrating cylinder. Journal of Fluid Mechanics, 2000, 420, 85-130.	1.4	758
5	The effect of two degrees of freedom on vortex-induced vibration at low mass and damping. Journal of Fluid Mechanics, 2004, 509, 23-62.	1.4	591
6	Three-dimensional wake transition. Journal of Fluid Mechanics, 1996, 328, 345-407.	1.4	541
7	A brief review of recent results in vortex-induced vibrations. Journal of Wind Engineering and Industrial Aerodynamics, 2008, 96, 713-735.	1.7	526
8	DYNAMICS OF A HYDROELASTIC CYLINDER WITH VERY LOW MASS AND DAMPING. Journal of Fluids and Structures, 1996, 10, 455-472.	1.5	494
9	The existence of two stages in the transition to three-dimensionality of a cylinder wake. Physics of Fluids, 1988, 31, 3165.	1.4	425
10	Evolution of a single wake behind a pair of bluff bodies. Journal of Fluid Mechanics, 1985, 159, 1.	1.4	386
11	The instability of the shear layer separating from a bluff body. Journal of Fluid Mechanics, 1997, 333, 375-402.	1.4	369
12	Defining a universal and continuous Strouhal-Reynolds number relationship for the laminar vortex shedding of a circular cylinder. Physics of Fluids, 1988, 31, 2742.	1.4	341
13	The natural and forced formation of spot-like "vortex dislocations" in the transition of a wake. Journal of Fluid Mechanics, 1992, 243, 393.	1.4	336
14	FLUID FORCES AND DYNAMICS OF A HYDROELASTIC STRUCTURE WITH VERY LOW MASS AND DAMPING. Journal of Fluids and Structures, 1997, 11, 973-982.	1.5	331
15	Cooperative elliptic instability of a vortex pair. Journal of Fluid Mechanics, 1998, 360, 85-119.	1.4	284
16	Sinusoidal flow relative to circular cylinders. Journal of Fluid Mechanics, 1985, 155, 141.	1.4	282
17	Defining the "modified Griffin plot" in vortex-induced vibration: revealing the effect of Reynolds number using controlled damping. Journal of Fluid Mechanics, 2006, 561, 147.	1.4	237
18	Dynamics and Instabilities of Vortex Pairs. Annual Review of Fluid Mechanics, 2016, 48, 507-541.	10.8	213

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19	The physical mechanism for vortex merging. <i>Journal of Fluid Mechanics</i> , 2003, 475, 41-77.	1.4	207
20	Vortex-induced vibration of a cylinder with two degrees of freedom. <i>Journal of Fluids and Structures</i> , 2003, 17, 1035-1042.	1.5	194
21	A SERIES IN $1/\hat{\alpha}^3 Re$ TO REPRESENT THE STROUHALâ€™ REYNOLDS NUMBER RELATIONSHIP OF THE CYLINDER WAKE. <i>Journal of Fluids and Structures</i> , 1998, 12, 1073-1085.	1.5	188
22	Prediction of vortex-induced vibration response by employing controlled motion. <i>Journal of Fluid Mechanics</i> , 2009, 634, 5.	1.4	165
23	The effect of Reynolds number on the dynamics and wakes of freely rising and falling spheres. <i>Journal of Fluid Mechanics</i> , 2010, 651, 251-294.	1.4	144
24	THE PHYSICAL MECHANISM OF TRANSITION IN BLUFF BODY WAKES. <i>Journal of Fluids and Structures</i> , 2001, 15, 607-616.	1.5	130
25	Vortex-induced vibrations of a sphere. <i>Journal of Fluid Mechanics</i> , 2005, 531, 11-47.	1.4	124
26	A COMPLEMENTARY NUMERICAL AND PHYSICAL INVESTIGATION OF VORTEX-INDUCED VIBRATION. <i>Journal of Fluids and Structures</i> , 2001, 15, 481-488.	1.5	109
27	Direct measurement of thrust and efficiency of an airfoil undergoing pure pitching. <i>Journal of Fluid Mechanics</i> , 2015, 765, 524-543.	1.4	97
28	Three-dimensional effects in turbulent bluff-body wakes. <i>Journal of Fluid Mechanics</i> , 1997, 343, 235-265.	1.4	93
29	The effect of end conditions on the vortex-induced vibration of cylinders. <i>Journal of Fluids and Structures</i> , 2008, 24, 1227-1239.	1.5	83
30	DYNAMICS AND FORCING OF A TETHERED SPHERE IN A FLUID FLOW. <i>Journal of Fluids and Structures</i> , 1997, 11, 293-305.	1.5	80
31	Fluid forcing, wake modes, and transitions for a cylinder undergoing controlled oscillations. <i>Journal of Fluids and Structures</i> , 2009, 25, 697-712.	1.5	77
32	VORTEX-INDUCED VIBRATION OF A FLEXIBLE CANTILEVER. <i>Journal of Fluids and Structures</i> , 2001, 15, 651-658.	1.5	74
33	Vortex-induced vibrations of a pivoted cylinder. <i>Journal of Fluid Mechanics</i> , 2005, 522, 215-252.	1.4	70
34	A new mechanism for oblique wave resonance in the â€™naturalâ€™™ far wake. <i>Journal of Fluid Mechanics</i> , 1993, 256, 269-313.	1.4	60
35	MULTIPLE MODES OF VORTEX-INDUCED VIBRATION OF A SPHERE. <i>Journal of Fluids and Structures</i> , 2001, 15, 555-563.	1.5	58
36	MEAN AND FLUCTUATING VELOCITY FIELDS IN THE WAKE OF A FREELY-VIBRATING CYLINDER. <i>Journal of Fluids and Structures</i> , 2001, 15, 489-501.	1.5	55

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37	Three-dimensional vortex dynamics in bluff body wakes. <i>Experimental Thermal and Fluid Science</i> , 1996, 12, 150-168.	1.5	51
38	Developing a cyber-physical fluid dynamics facility for fluid-structure interaction studies. <i>Journal of Fluids and Structures</i> , 2011, 27, 748-757.	1.5	47
39	The instability of the separated shear layer from a bluff body. <i>Physics of Fluids</i> , 1996, 8, 1347-1349.	1.6	45
40	Experiments on long-wavelength instability and reconnection of a vortex pair. <i>Physics of Fluids</i> , 2011, 23, .	1.6	44
41	A new family of uniform vortices related to vortex configurations before merging. <i>Journal of Fluid Mechanics</i> , 2003, 493, 219-229.	1.4	32
42	Vortex-induced vibration of a rising and falling cylinder. <i>Journal of Fluid Mechanics</i> , 2010, 662, 352-383.	1.4	32
43	Instability of secondary vortices generated by a vortex pair in ground effect. <i>Journal of Fluid Mechanics</i> , 2012, 700, 148-186.	1.4	31
44	Employing controlled vibrations to predict fluid forces on a cylinder undergoing vortex-induced vibration. <i>Journal of Fluids and Structures</i> , 2006, 22, 877-884.	1.5	29
45	An efficient and general numerical method to compute steady uniform vortices. <i>Journal of Computational Physics</i> , 2011, 230, 6495-6511.	1.9	29
46	Dynamics of a rising and falling cylinder. <i>Journal of Fluids and Structures</i> , 2006, 22, 837-843.	1.5	27
47	Stability of elliptical vortices from "Imperfect" Velocity-Impulse diagrams. <i>Theoretical and Computational Fluid Dynamics</i> , 2010, 24, 181-188.	0.9	27
48	Acoustic forcing of oblique wave resonance in the far wake. <i>Journal of Fluid Mechanics</i> , 1993, 256, 315-341.	1.4	24
49	In-line response of a cylinder in oscillatory flow. <i>Applied Ocean Research</i> , 1985, 7, 97-106.	1.8	20
50	Determining the stability of steady two-dimensional flows through imperfect velocity-impulse diagrams. <i>Journal of Fluid Mechanics</i> , 2012, 706, 323-350.	1.4	18
51	Wave interactions in the far wake of a body. <i>Physics of Fluids A, Fluid Dynamics</i> , 1993, 5, 1854-1856.	1.6	16
52	A mathematical model of 2P and 2C vortex wakes. <i>Journal of Fluids and Structures</i> , 2011, 27, 774-783.	1.5	16
53	Stability of Conservative Flows and New Steady-Fluid Solutions from Bifurcation Diagrams Exploiting a Variational Argument. <i>Physical Review Letters</i> , 2010, 104, 044504.	2.9	15
54	Steady, unsteady and transient vortex-induced vibration predicted using controlled motion data. <i>Journal of Fluid Mechanics</i> , 2010, 649, 429-451.	1.4	13

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55	Current blockage experiments: force time histories on obstacle arrays in combined steady and oscillatory motion. <i>Journal of Fluid Mechanics</i> , 2014, 739, 143-178.	1.4	13
56	Influence of a wall on the three-dimensional dynamics of a vortex pair. <i>Journal of Fluid Mechanics</i> , 2017, 817, 339-373.	1.4	12
57	Structure and stability of the finite-area von Kármán street. <i>Physics of Fluids</i> , 2012, 24, .	1.6	11
58	Cell Formation in Cylinder Wakes at Low Reynolds Numbers. <i>Physical Review Letters</i> , 1997, 78, 1259-1262.	2.9	10
59	Fluid forces on a small cylinder in the presence of a large cylinder in relative oscillatory flow. <i>Applied Ocean Research</i> , 1985, 7, 124-127.	1.8	9
60	Resonant instability in two-dimensional vortex arrays. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2011, 467, 1164-1185.	1.0	8
61	Double laminar and turbulent meteor trails observed in space and simulated in the laboratory. <i>Journal of Geophysical Research: Space Physics</i> , 2013, 118, 3622-3625.	0.8	7
62	Turbulent structures in the trailing vortex wake of a delta wing. <i>Experimental Thermal and Fluid Science</i> , 1997, 14, 2-8.	1.5	5
63	<i>Aerodynamics</i> , , 2007, , 1043-1155.		3
64	Title is missing!. <i>Journal of Fluids and Structures</i> , 2006, 22, 733-736.	1.5	0
65	Computing Steady Vortex Flows of Prescribed Topology. <i>Procedia IUTAM</i> , 2013, 7, 67-76.	1.2	0