

Thomas Leweke

List of Publications by Year in descending order

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85
papers

2,885
citations

147801

31
h-index

168389

53
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94
all docs

94
docs citations

94
times ranked

1413
citing authors

#	ARTICLE	IF	CITATIONS
1	Cooperative elliptic instability of a vortex pair. <i>Journal of Fluid Mechanics</i> , 1998, 360, 85-119.	3.4	284
2	Dynamics and Instabilities of Vortex Pairs. <i>Annual Review of Fluid Mechanics</i> , 2016, 48, 507-541.	25.0	213
3	Analysis and treatment of errors due to high velocity gradients in particle image velocimetry. <i>Experiments in Fluids</i> , 2003, 35, 408-421.	2.4	148
4	THE PHYSICAL MECHANISM OF TRANSITION IN BLUFF BODY WAKES. <i>Journal of Fluids and Structures</i> , 2001, 15, 607-616.	3.4	130
5	Physics of vortex merging. <i>Comptes Rendus Physique</i> , 2005, 6, 431-450.	0.9	127
6	A merging criterion for two-dimensional co-rotating vortices. <i>Physics of Fluids</i> , 2002, 14, 2757-2766.	4.0	113
7	KINEMATICS AND DYNAMICS OF SPHERE WAKE TRANSITION. <i>Journal of Fluids and Structures</i> , 2001, 15, 575-585.	3.4	112
8	The flow behind rings: bluff body wakes without end effects. <i>Journal of Fluid Mechanics</i> , 1995, 288, 265-310.	3.4	102
9	Three-dimensional instabilities in wake transition. <i>European Journal of Mechanics, B/Fluids</i> , 1998, 17, 571-586.	2.5	101
10	Three-dimensional instability during vortex merging. <i>Physics of Fluids</i> , 2001, 13, 2747-2750.	4.0	93
11	The flow past a circular cylinder translating at different heights above a wall. <i>Journal of Fluids and Structures</i> , 2013, 41, 9-21.	3.4	77
12	Long-wave instability of a helical vortex. <i>Journal of Fluid Mechanics</i> , 2015, 780, 687-716.	3.4	73
13	Elliptic instability of a co-rotating vortex pair. <i>Journal of Fluid Mechanics</i> , 2005, 533, .	3.4	69
14	Hydrodynamics of a particle impact on a wall. <i>Applied Mathematical Modelling</i> , 2006, 30, 1356-1369.	4.2	62
15	Interactions of the wakes of two spheres placed side by side. <i>European Journal of Mechanics, B/Fluids</i> , 2004, 23, 137-145.	2.5	52
16	Flows past rotating cylinders next to a wall. <i>Journal of Fluids and Structures</i> , 2011, 27, 668-679.	3.4	49
17	Steady inlet flow in stenotic geometries: convective and absolute instabilities. <i>Journal of Fluid Mechanics</i> , 2008, 616, 111-133.	3.4	47
18	Vorticity generation and conservation for two-dimensional interfaces and boundaries. <i>Journal of Fluid Mechanics</i> , 2014, 758, 63-93.	3.4	47

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19	The wake behind a cylinder rolling on a wall at varying rotation rates. <i>Journal of Fluid Mechanics</i> , 2010, 648, 225-256.	3.4	44
20	Experiments on long-wavelength instability and reconnection of a vortex pair. <i>Physics of Fluids</i> , 2011, 23, .	4.0	44
21	Model for the transition in bluff body wakes. <i>Physical Review Letters</i> , 1994, 72, 3174-3177.	7.8	42
22	Sphere–wall collisions: vortex dynamics and stability. <i>Journal of Fluid Mechanics</i> , 2007, 575, 121-148.	3.4	42
23	Local and global pairing instabilities of two interlaced helical vortices. <i>Journal of Fluid Mechanics</i> , 2019, 863, 927-955.	3.4	40
24	Numerical and experimental studies of the rolling sphere wake. <i>Journal of Fluid Mechanics</i> , 2010, 643, 137-162.	3.4	37
25	Wake behaviour and instability of flow through a partially blocked channel. <i>Journal of Fluid Mechanics</i> , 2007, 582, 319-340.	3.4	36
26	Flow around an impulsively arrested circular cylinder. <i>Physics of Fluids</i> , 2007, 19, .	4.0	34
27	Flow past a rotating cylinder translating at different gap heights along a wall. <i>Journal of Fluids and Structures</i> , 2015, 57, 314-330.	3.4	34
28	Vortex dynamics associated with the collision of a sphere with a wall. <i>Physics of Fluids</i> , 2004, 16, L74-L77.	4.0	33
29	Experiments on the elliptic instability in vortex pairs with axial core flow. <i>Journal of Fluid Mechanics</i> , 2011, 677, 383-416.	3.4	33
30	The evolution of a subharmonic mode in a vortex street. <i>Journal of Fluid Mechanics</i> , 2005, 534, 23-38.	3.4	32
31	Transverse instability and low-frequency flapping in incompressible separated boundary layer flows: an experimental study. <i>Journal of Fluid Mechanics</i> , 2012, 703, 363-373.	3.4	31
32	Effect of small asymmetries on axisymmetric stenotic flow. <i>Journal of Fluid Mechanics</i> , 2013, 721, .	3.4	30
33	Elliptic Instability of Counter-Rotating Vortices: Experiment and Direct Numerical Simulation. <i>AIAA Journal</i> , 2002, 40, 2483-2494.	2.6	28
34	Confined flow vortex breakdown control using a small rotating disk. <i>Physics of Fluids</i> , 2004, 16, 4750-4753.	4.0	27
35	Pulsatile flow in stenotic geometries: flow behaviour and stability. <i>Journal of Fluid Mechanics</i> , 2009, 622, 291-320.	3.4	27
36	Flow dynamics and forces associated with a cylinder rolling along a wall. <i>Physics of Fluids</i> , 2006, 18, 111701.	4.0	24

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37	Stability of vortex shedding modes in the wake of a ring at low Reynolds numbers. <i>Physical Review Letters</i> , 1993, 71, 3469-3472.	7.8	23
38	From the double vortex street behind a cylinder to the wake of a sphere. <i>European Journal of Mechanics, B/Fluids</i> , 2004, 23, 65-80.	2.5	20
39	Convective instability in steady stenotic flow: optimal transient growth and experimental observation. <i>Journal of Fluid Mechanics</i> , 2010, 655, 504-514.	3.4	20
40	Transition to chaos in the wake of a rolling sphere. <i>Journal of Fluid Mechanics</i> , 2012, 695, 135-148.	3.4	18
41	Control of confined vortex breakdown with partial rotating lids. <i>Journal of Fluid Mechanics</i> , 2014, 738, 5-33.	3.4	18
42	Dynamics and stability of the wake behind tandem cylinders sliding along a wall. <i>Journal of Fluid Mechanics</i> , 2013, 722, 291-316.	3.4	16
43	Long- and short-wave instabilities in helical vortices. <i>Journal of Physics: Conference Series</i> , 2014, 524, 012154.	0.4	16
44	Bluff Bodies and Wake-Wall Interactions. <i>Annual Review of Fluid Mechanics</i> , 2021, 53, 347-376.	25.0	16
45	Instability of the flow around an impacting sphere. <i>Journal of Fluids and Structures</i> , 2006, 22, 961-971.	3.4	14
46	Vorticity generation and wake transition for a translating circular cylinder: Wall proximity and rotation effects. <i>Journal of Wind Engineering and Industrial Aerodynamics</i> , 2013, 122, 2-9.	3.9	14
47	Long-Wavelength Instability and Reconnection of a Vortex Pair. <i>Fluid Mechanics and Its Applications</i> , 1998, , 225-234.	0.2	14
48	Wake transition of a rolling sphere. <i>Journal of Visualization</i> , 2011, 14, 1-2.	1.8	11
49	Cell Formation in Cylinder Wakes at Low Reynolds Numbers. <i>Physical Review Letters</i> , 1997, 78, 1259-1262.	7.8	10
50	Determination of the Parameters of the Ginzburg-Landau Wake Model from Experiments on a Bluff Ring. <i>Europhysics Letters</i> , 1994, 27, 655-660.	2.0	9
51	Spiral shear layers: Roll-up and incipient instability. <i>Physics of Fluids</i> , 2005, 17, 031705.	4.0	8
52	Wake formation behind a rolling sphere. <i>Physics of Fluids</i> , 2008, 20, .	4.0	8
53	Fluid-structure interaction of a flexible rotor in water. <i>Journal of Fluids and Structures</i> , 2021, 103, 103259.	3.4	8
54	Unsteady flow around impacting bluff bodies. <i>Journal of Fluids and Structures</i> , 2008, 24, 1194-1203.	3.4	7

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55	Phenomena, dynamics and instabilities of vortex pairs. Fluid Dynamics Research, 2014, 46, 061425.	1.3	7
56	Spatio-temporal development of the pairing instability in an infinite array of vortex rings. Fluid Dynamics Research, 2014, 46, 061405.	1.3	6
57	Two- and three-dimensional wake transitions of an impulsively started uniformly rolling circular cylinder. Journal of Fluid Mechanics, 2017, 826, 32-59.	3.4	6
58	Merging and Three-dimensional Instability in a Corotating Vortex Pair. Lecture Notes in Physics, 2000, , 241-251.	0.7	6
59	Wake dynamics and flow-induced vibration of a freely rolling cylinder. Journal of Fluid Mechanics, 2020, 903, .	3.4	5
60	Comparison between experiments and Large-Eddy Simulations of tip spiral structure and geometry. Journal of Physics: Conference Series, 2015, 625, 012018.	0.4	4
61	Instability and merging of a helical vortex pair in the wake of a rotor. Journal of Physics: Conference Series, 2021, 1934, 012007.	0.4	4
62	Motion of a Möbius band in free fall. Journal of Fluids and Structures, 2009, 25, 687-696.	3.4	3
63	Dye Visualization - A Method for Investigating Biomechanical Flows. Current Pharmaceutical Biotechnology, 2012, 13, 2141-2152.	1.6	3
64	Numerical investigation of the vortex roll-up from a helicopter blade tip using a novel fixed-wing adaptation method. CEAS Aeronautical Journal, 2017, 8, 245-260.	1.7	3
65	Experiments on helical vortex pairs in the wake of a rotor. , 2021, , .		3
66	Long-wave instabilities of two interlaced helical vortices. Journal of Physics: Conference Series, 2016, 753, 032022.	0.4	2
67	Numerical Study of the Reliability of Wind-Tunnel Wall Corrections for Wingtip Flow. Journal of Aircraft, 2017, 54, 354-358.	2.4	2
68	OSCILLATIONS AND VORTEX-INDUCED VIBRATIONS OF A TETHERED SPHERE IN A FLOW. Journal of Flow Visualization and Image Processing, 2005, 12, 29-44.	0.5	2
69	Experimental investigation of a rotor blade tip vortex pair. CEAS Aeronautical Journal, 2022, 13, 97-112.	1.7	2
70	Vorticity generation and conservation for two-dimensional interfaces and boundaries – ERRATUM. Journal of Fluid Mechanics, 2020, 896, .	3.4	1
71	Deformation and wake of a flexible rotor in water. Journal of Physics: Conference Series, 2021, 1934, 012006.	0.4	1
72	Vortex Dynamics Associated with the Impact of a Cylinder with a Wall. IUTAM Symposium on Cellular, Molecular and Tissue Mechanics, 2009, , 235-242.	0.2	1

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73	Pairing Instability in Helical Vortices. Research Topics in Wind Energy, 2014, , 23-28.	0.2	1
74	Instabilities in Trailing Vortices and in the Temporal Development of Vortex Pairs. Fluid Mechanics and Its Applications, 1996, , 361-364.	0.2	1
75	Three-Dimensional Instabilities of a Counterrotating Vortex Pair. , 2000, , 221-230.		1
76	3. Reconnection of a counterrotating vortex pair. Journal of Visualization, 1999, 2, 5-5.	1.8	0
77	1. Three-dimensional instabilities in a counterrotating vortex pair. Journal of Visualization, 2000, 3, 3-3.	1.8	0
78	1. Secondary structures in a corotating vortex pair. Journal of Visualization, 2001, 4, 115-115.	1.8	0
79	Title is missing!. Journal of Fluids and Structures, 2006, 22, 733-736.	3.4	0
80	Fluid-Structure Interaction of a Rolling Cylinder with Offset Centre-of-Mass. Notes on Numerical Fluid Mechanics and Multidisciplinary Design, 2016, , 91-104.	0.3	0
81	Editorial: Seventh Conference on Bluff Body Wakes and Vortex-Induced Vibrations (BBVIV-7). Journal of Fluids and Structures, 2019, 89, 1-12.	3.4	0
82	Vortex flows and the perception of movement in still images. , 2000, , 21-28.		0
83	Wing Wake Vortices and Temporal Vortex Pair Instabilities. Lecture Notes in Physics, 2001, , 379-400.	0.7	0
84	The First Steps of the Transition to Turbulence in the Wake of a Ring and Their Modelling by the Ginzburg-Landau Equation. Fluid Mechanics and Its Applications, 1995, , 319-323.	0.2	0
85	The Modelling of the Wake of a Torus by the Ginzburg-Landau Equation. Notes on Numerical Fluid Mechanics, 1996, , 234-239.	0.1	0