

# John W M Bush

## List of Publications by Year in descending order

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87  
papers

7,254  
citations

66343

42  
h-index

54911

84  
g-index

94  
all docs

94  
docs citations

94  
times ranked

5247  
citing authors

#	ARTICLE	IF	CITATIONS
1	Violent expiratory events: on coughing and sneezing. <i>Journal of Fluid Mechanics</i> , 2014, 745, 537-563.	3.4	655
2	The hydrodynamics of water strider locomotion. <i>Nature</i> , 2003, 424, 663-666.	27.8	628
3	WALKING ON WATER: Biocomotion at the Interface. <i>Annual Review of Fluid Mechanics</i> , 2006, 38, 339-369.	25.0	454
4	A guideline to limit indoor airborne transmission of COVID-19. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	7.1	313
5	Water entry of small hydrophobic spheres. <i>Journal of Fluid Mechanics</i> , 2009, 619, 45-78.	3.4	283
6	Hyperpycnal plume formation from riverine outflows with small sediment concentrations. <i>Sedimentology</i> , 2001, 48, 465-478.	3.1	261
7	Meniscus-climbing insects. <i>Nature</i> , 2005, 437, 733-736.	27.8	234
8	Pilot-Wave Hydrodynamics. <i>Annual Review of Fluid Mechanics</i> , 2015, 47, 269-292.	25.0	223
9	The Integument of Water-walking Arthropods: Form and Function. <i>Advances in Insect Physiology</i> , 2007, , 117-192.	2.7	192
10	The water entry of decelerating spheres. <i>Physics of Fluids</i> , 2010, 22, .	4.0	187
11	Underwater breathing: the mechanics of plastron respiration. <i>Journal of Fluid Mechanics</i> , 2008, 608, 275-296.	3.4	156
12	On the collision of laminar jets: fluid chains and fishbones. <i>Journal of Fluid Mechanics</i> , 2004, 511, 285-310.	3.4	151
13	The influence of surface tension on the circular hydraulic jump. <i>Journal of Fluid Mechanics</i> , 2003, 489, 229-238.	3.4	149
14	The hydrodynamics of water-walking arthropods. <i>Journal of Fluid Mechanics</i> , 2010, 644, 5-33.	3.4	130
15	Drops walking on a vibrating bath: towards a hydrodynamic pilot-wave theory. <i>Journal of Fluid Mechanics</i> , 2013, 727, 612-647.	3.4	124
16	Viscous sheet retraction. <i>Journal of Fluid Mechanics</i> , 2009, 626, 211-240.	3.4	122
17	Wavelike statistics from pilot-wave dynamics in a circular corral. <i>Physical Review E</i> , 2013, 88, 011001.	2.1	115
18	Drops bouncing on a vibrating bath. <i>Journal of Fluid Mechanics</i> , 2013, 727, 582-611.	3.4	115

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19	A trajectory equation for walking droplets: hydrodynamic pilot-wave theory. <i>Journal of Fluid Mechanics</i> , 2013, 737, 552-570.	3.4	98
20	An experimental investigation of the stability of the circular hydraulic jump. <i>Journal of Fluid Mechanics</i> , 2006, 558, 33.	3.4	97
21	Pilot-wave dynamics in a rotating frame: on the emergence of orbital quantization. <i>Journal of Fluid Mechanics</i> , 2014, 744, 404-429.	3.4	91
22	Particle clouds in homogeneous and stratified environments. <i>Journal of Fluid Mechanics</i> , 2003, 489, 29-54.	3.4	88
23	Natural drinking strategies. <i>Journal of Fluid Mechanics</i> , 2012, 705, 7-25.	3.4	88
24	The influence of surface tension gradients on drop coalescence. <i>Physics of Fluids</i> , 2009, 21, .	4.0	84
25	Droplets walking in a rotating frame: from quantized orbits to multimodal statistics. <i>Journal of Fluid Mechanics</i> , 2014, 739, 444-464.	3.4	84
26	Evaporative instabilities in climbing films. <i>Journal of Fluid Mechanics</i> , 2001, 442, 217-239.	3.4	81
27	The fluid trampoline: droplets bouncing on a soap film. <i>Journal of Fluid Mechanics</i> , 2009, 625, 167-203.	3.4	80
28	Water-walking devices. <i>Experiments in Fluids</i> , 2007, 43, 769-778.	2.4	75
29	Droplets bouncing on a wet, inclined surface. <i>Physics of Fluids</i> , 2012, 24, .	4.0	75
30	Faraday pilot-wave dynamics: modelling and computation. <i>Journal of Fluid Mechanics</i> , 2015, 778, 361-388.	3.4	67
31	The new wave of pilot-wave theory. <i>Physics Today</i> , 2015, 68, 47-53.	0.3	65
32	Exotic states of bouncing and walking droplets. <i>Physics of Fluids</i> , 2013, 25, .	4.0	63
33	Statistical projection effects in a hydrodynamic pilot-wave system. <i>Nature Physics</i> , 2018, 14, 315-319.	16.7	61
34	A low-cost, precise piezoelectric droplet-on-demand generator. <i>Experiments in Fluids</i> , 2015, 56, 1.	2.4	60
35	Hydrodynamic quantum analogs. <i>Reports on Progress in Physics</i> , 2021, 84, 017001.	20.1	58
36	Chaotic Bouncing of a Droplet on a Soap Film. <i>Physical Review Letters</i> , 2009, 102, 014501.	7.8	49

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37	Generating uniaxial vibration with an electrodynamic shaker and external air bearing. <i>Journal of Sound and Vibration</i> , 2015, 334, 255-269.	3.9	46
38	Walking droplets interacting with single and double slits. <i>Journal of Fluid Mechanics</i> , 2018, 835, 1136-1156.	3.4	46
39	Freshwater Discharge, Sediment Transport, and Modeled Climate Impacts of the Final Drainage of Glacial Lake Agassiz. <i>Journal of Climate</i> , 2009, 22, 2161-2180.	3.2	44
40	Pilot-wave hydrodynamics in a rotating frame: Exotic orbits. <i>Physics of Fluids</i> , 2014, 26, .	4.0	44
41	Electrically induced drop detachment and ejection. <i>Physics of Fluids</i> , 2016, 28, .	4.0	44
42	Quantum mechanics writ large. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 17455-17456.	7.1	43
43	Tunneling with a hydrodynamic pilot-wave model. <i>Physical Review Fluids</i> , 2017, 2, .	2.5	42
44	A laboratory model of splashâ€œform tektites. <i>Meteoritics and Planetary Science</i> , 2003, 38, 1331-1340.	1.6	41
45	Thermal delay of drop coalescence. <i>Journal of Fluid Mechanics</i> , 2017, 833, .	3.4	38
46	Grabbing water. <i>Soft Matter</i> , 2010, 6, 5705.	2.7	36
47	Crawling beneath the free surface: Water snail locomotion. <i>Physics of Fluids</i> , 2008, 20, .	4.0	35
48	Surface topography measurements of the bouncing droplet experiment. <i>Experiments in Fluids</i> , 2016, 57, 1.	2.4	33
49	Orbiting pairs of walking droplets: Dynamics and stability. <i>Physical Review Fluids</i> , 2017, 2, .	2.5	33
50	Spontaneous oscillations of a sessile lens. <i>Journal of Fluid Mechanics</i> , 2007, 583, 465-475.	3.4	32
51	Non-specular reflection of walking droplets. <i>Journal of Fluid Mechanics</i> , 2016, 804, .	3.4	32
52	Walking droplets in a circular corral: Quantisation and chaos. <i>Chaos</i> , 2018, 28, 096116.	2.5	32
53	Monitoring carbon dioxide to quantify the risk of indoor airborne transmission of COVID-19. <i>Flow</i> , 2021, 1, .	2.6	32
54	Introduction to focus issue on hydrodynamic quantum analogs. <i>Chaos</i> , 2018, 28, 096001.	2.5	31

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55	A hydrodynamic analog of Friedel oscillations. <i>Science Advances</i> , 2020, 6, eaay9234.	10.3	31
56	Spin-up from rest in a stratified fluid: boundary flows. <i>Journal of Fluid Mechanics</i> , 2002, 472, 51-82.	3.4	30
57	Fluid pipes. <i>Journal of Fluid Mechanics</i> , 2002, 466, 285-304.	3.4	30
58	Particle concentration evolution and sedimentation-induced instabilities in a stably stratified environment. <i>Physics of Fluids</i> , 2005, 17, 073302.	4.0	30
59	Promenading pairs of walking droplets: Dynamics and stability. <i>Physical Review Fluids</i> , 2018, 3, .	2.5	30
60	Hydrodynamic spin states. <i>Chaos</i> , 2018, 28, 096106.	2.5	29
61	Emergent order in hydrodynamic spin lattices. <i>Nature</i> , 2021, 596, 58-62.	27.8	29
62	Drop impact and capture on a thin flexible fiber. <i>Soft Matter</i> , 2016, 12, 149-156.	2.7	28
63	The wave-induced added mass of walking droplets. <i>Journal of Fluid Mechanics</i> , 2014, 755, .	3.4	27
64	Vortex generation by line plumes in a rotating stratified fluid. <i>Journal of Fluid Mechanics</i> , 1999, 388, 289-313.	3.4	26
65	The onset of chaos in orbital pilot-wave dynamics. <i>Chaos</i> , 2016, 26, 103107.	2.5	26
66	Dynamics, emergent statistics, and the mean-pilot-wave potential of walking droplets. <i>Chaos</i> , 2018, 28, 096108.	2.5	26
67	Bouncing phase variations in pilot-wave hydrodynamics and the stability of droplet pairs. <i>Journal of Fluid Mechanics</i> , 2019, 871, 212-243.	3.4	23
68	The Cocktail Boat. <i>Integrative and Comparative Biology</i> , 2014, 54, 969-973.	2.0	21
69	The stratified Boycott effect. <i>Journal of Fluid Mechanics</i> , 2005, 529, 33-49.	3.4	20
70	Simulations of pilot-wave dynamics in a simple harmonic potential. <i>Physical Review Fluids</i> , 2017, 2, .	2.5	20
71	Predictability in a hydrodynamic pilot-wave system: Resolution of walker tunneling. <i>Physical Review E</i> , 2020, 102, 013104.	2.1	18
72	Speed oscillations in classical pilot-wave dynamics. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2020, 476, 20190884.	2.1	17

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73	Spin lattices of walking droplets. <i>Physical Review Fluids</i> , 2018, 3, .	2.5	16
74	The interaction of a walking droplet and a submerged pillar: From scattering to the logarithmic spiral. <i>Chaos</i> , 2018, 28, 096105.	2.5	15
75	Visualization of hydrodynamic pilot-wave phenomena. <i>Journal of Visualization</i> , 2017, 20, 13-15.	1.8	14
76	Hydrodynamic Quantum Field Theory: The Onset of Particle Motion and the Form of the Pilot Wave. <i>Frontiers in Physics</i> , 2020, 8, .	2.1	14
77	Hydrodynamic quantum field theory: the free particle. <i>Comptes Rendus - Mecanique</i> , 2020, 348, 555-571.	0.7	14
78	Biomimicry and the culinary arts. <i>Bioinspiration and Biomimetics</i> , 2013, 8, 044003.	2.9	13
79	Exploring orbital dynamics and trapping with a generalized pilot-wave framework. <i>Chaos</i> , 2018, 28, 096115.	2.5	13
80	Free rings of bouncing droplets: stability and dynamics. <i>Journal of Fluid Mechanics</i> , 2020, 903, .	3.4	11
81	An experimental investigation of spin-up from rest of a stratified fluid. <i>Geophysical and Astrophysical Fluid Dynamics</i> , 2004, 98, 277-296.	1.2	10
82	Flow visualization using tobacco mosaic virus. <i>Experiments in Fluids</i> , 2009, 46, 477-484.	2.4	10
83	Classical pilot-wave dynamics: The free particle. <i>Chaos</i> , 2021, 31, 033136.	2.5	10
84	Hydrodynamic superradiance in wave-mediated cooperative tunneling. <i>Communications Physics</i> , 2022, 5, .	5.3	9
85	An investigation of the link between lead-induced thermohaline convection and Arctic eddies. <i>Geophysical Research Letters</i> , 2000, 27, 1179-1182.	4.0	5
86	Shedding light on pilot-wave phenomena. <i>Physical Review Fluids</i> , 2016, 1, .	2.5	5
87	Merger of a bubble and a soap film. <i>Physical Review Fluids</i> , 2016, 1, .	2.5	2