

# John W M Bush

## List of Publications by Year in descending order

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87  
papers

7,254  
citations

66234

42  
h-index

54797

84  
g-index

94  
all docs

94  
docs citations

94  
times ranked

5247  
citing authors

#	ARTICLE	IF	CITATIONS
1	Hydrodynamic superradiance in wave-mediated cooperative tunneling. <i>Communications Physics</i> , 2022, 5, .	2.0	9
2	Classical pilot-wave dynamics: The free particle. <i>Chaos</i> , 2021, 31, 033136.	1.0	10
3	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, .	3.3	313
4	Emergent order in hydrodynamic spin lattices. <i>Nature</i> , 2021, 596, 58-62.	13.7	29
5	Hydrodynamic quantum analogs. <i>Reports on Progress in Physics</i> , 2021, 84, 017001.	8.1	58
6	Monitoring carbon dioxide to quantify the risk of indoor airborne transmission of COVID-19. <i>Flow</i> , 2021, 1, .	1.0	32
7	Free rings of bouncing droplets: stability and dynamics. <i>Journal of Fluid Mechanics</i> , 2020, 903, .	1.4	11
8	Speed oscillations in classical pilot-wave dynamics. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2020, 476, 20190884.	1.0	17
9	Hydrodynamic Quantum Field Theory: The Onset of Particle Motion and the Form of the Pilot Wave. <i>Frontiers in Physics</i> , 2020, 8, .	1.0	14
10	Predictability in a hydrodynamic pilot-wave system: Resolution of walker tunneling. <i>Physical Review E</i> , 2020, 102, 013104.	0.8	18
11	A hydrodynamic analog of Friedel oscillations. <i>Science Advances</i> , 2020, 6, eaay9234.	4.7	31
12	Hydrodynamic quantum field theory: the free particle. <i>Comptes Rendus - Mecanique</i> , 2020, 348, 555-571.	0.3	14
13	Bouncing phase variations in pilot-wave hydrodynamics and the stability of droplet pairs. <i>Journal of Fluid Mechanics</i> , 2019, 871, 212-243.	1.4	23
14	Walking droplets interacting with single and double slits. <i>Journal of Fluid Mechanics</i> , 2018, 835, 1136-1156.	1.4	46
15	Introduction to focus issue on hydrodynamic quantum analogs. <i>Chaos</i> , 2018, 28, 096001.	1.0	31
16	Dynamics, emergent statistics, and the mean-pilot-wave potential of walking droplets. <i>Chaos</i> , 2018, 28, 096108.	1.0	26
17	Exploring orbital dynamics and trapping with a generalized pilot-wave framework. <i>Chaos</i> , 2018, 28, 096115.	1.0	13
18	Walking droplets in a circular corral: Quantisation and chaos. <i>Chaos</i> , 2018, 28, 096116.	1.0	32

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19	The interaction of a walking droplet and a submerged pillar: From scattering to the logarithmic spiral. <i>Chaos</i> , 2018, 28, 096105.	1.0	15
20	Hydrodynamic spin states. <i>Chaos</i> , 2018, 28, 096106.	1.0	29
21	Statistical projection effects in a hydrodynamic pilot-wave system. <i>Nature Physics</i> , 2018, 14, 315-319.	6.5	61
22	Promenading pairs of walking droplets: Dynamics and stability. <i>Physical Review Fluids</i> , 2018, 3, .	1.0	30
23	Spin lattices of walking droplets. <i>Physical Review Fluids</i> , 2018, 3, .	1.0	16
24	Thermal delay of drop coalescence. <i>Journal of Fluid Mechanics</i> , 2017, 833, .	1.4	38
25	Visualization of hydrodynamic pilot-wave phenomena. <i>Journal of Visualization</i> , 2017, 20, 13-15.	1.1	14
26	Tunneling with a hydrodynamic pilot-wave model. <i>Physical Review Fluids</i> , 2017, 2, .	1.0	42
27	Orbiting pairs of walking droplets: Dynamics and stability. <i>Physical Review Fluids</i> , 2017, 2, .	1.0	33
28	Simulations of pilot-wave dynamics in a simple harmonic potential. <i>Physical Review Fluids</i> , 2017, 2, .	1.0	20
29	The onset of chaos in orbital pilot-wave dynamics. <i>Chaos</i> , 2016, 26, 103107.	1.0	26
30	Non-specular reflection of walking droplets. <i>Journal of Fluid Mechanics</i> , 2016, 804, .	1.4	32
31	Electrically induced drop detachment and ejection. <i>Physics of Fluids</i> , 2016, 28, .	1.6	44
32	Surface topography measurements of the bouncing droplet experiment. <i>Experiments in Fluids</i> , 2016, 57, 1.	1.1	33
33	Drop impact and capture on a thin flexible fiber. <i>Soft Matter</i> , 2016, 12, 149-156.	1.2	28
34	Merger of a bubble and a soap film. <i>Physical Review Fluids</i> , 2016, 1, .	1.0	2
35	Shedding light on pilot-wave phenomena. <i>Physical Review Fluids</i> , 2016, 1, .	1.0	5
36	Faraday pilot-wave dynamics: modelling and computation. <i>Journal of Fluid Mechanics</i> , 2015, 778, 361-388.	1.4	67

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37	The new wave of pilot-wave theory. <i>Physics Today</i> , 2015, 68, 47-53.	0.3	65
38	A low-cost, precise piezoelectric droplet-on-demand generator. <i>Experiments in Fluids</i> , 2015, 56, 1.	1.1	60
39	Generating uniaxial vibration with an electrodynamic shaker and external air bearing. <i>Journal of Sound and Vibration</i> , 2015, 334, 255-269.	2.1	46
40	Pilot-Wave Hydrodynamics. <i>Annual Review of Fluid Mechanics</i> , 2015, 47, 269-292.	10.8	223
41	The Cocktail Boat. <i>Integrative and Comparative Biology</i> , 2014, 54, 969-973.	0.9	21
42	Pilot-wave hydrodynamics in a rotating frame: Exotic orbits. <i>Physics of Fluids</i> , 2014, 26, .	1.6	44
43	Violent expiratory events: on coughing and sneezing. <i>Journal of Fluid Mechanics</i> , 2014, 745, 537-563.	1.4	655
44	Droplets walking in a rotating frame: from quantized orbits to multimodal statistics. <i>Journal of Fluid Mechanics</i> , 2014, 739, 444-464.	1.4	84
45	The wave-induced added mass of walking droplets. <i>Journal of Fluid Mechanics</i> , 2014, 755, .	1.4	27
46	Pilot-wave dynamics in a rotating frame: on the emergence of orbital quantization. <i>Journal of Fluid Mechanics</i> , 2014, 744, 404-429.	1.4	91
47	Wavelike statistics from pilot-wave dynamics in a circular corral. <i>Physical Review E</i> , 2013, 88, 011001.	0.8	115
48	Exotic states of bouncing and walking droplets. <i>Physics of Fluids</i> , 2013, 25, .	1.6	63
49	Biomimicry and the culinary arts. <i>Bioinspiration and Biomimetics</i> , 2013, 8, 044003.	1.5	13
50	Drops bouncing on a vibrating bath. <i>Journal of Fluid Mechanics</i> , 2013, 727, 582-611.	1.4	115
51	Drops walking on a vibrating bath: towards a hydrodynamic pilot-wave theory. <i>Journal of Fluid Mechanics</i> , 2013, 727, 612-647.	1.4	124
52	A trajectory equation for walking droplets: hydrodynamic pilot-wave theory. <i>Journal of Fluid Mechanics</i> , 2013, 737, 552-570.	1.4	98
53	Droplets bouncing on a wet, inclined surface. <i>Physics of Fluids</i> , 2012, 24, .	1.6	75
54	Natural drinking strategies. <i>Journal of Fluid Mechanics</i> , 2012, 705, 7-25.	1.4	88

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55	The hydrodynamics of water-walking arthropods. <i>Journal of Fluid Mechanics</i> , 2010, 644, 5-33.	1.4	130
56	Quantum mechanics writ large. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 17455-17456.	3.3	43
57	The water entry of decelerating spheres. <i>Physics of Fluids</i> , 2010, 22, .	1.6	187
58	Grabbing water. <i>Soft Matter</i> , 2010, 6, 5705.	1.2	36
59	Chaotic Bouncing of a Droplet on a Soap Film. <i>Physical Review Letters</i> , 2009, 102, 014501.	2.9	49
60	The influence of surface tension gradients on drop coalescence. <i>Physics of Fluids</i> , 2009, 21, .	1.6	84
61	Flow visualization using tobacco mosaic virus. <i>Experiments in Fluids</i> , 2009, 46, 477-484.	1.1	10
62	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.	1.2	44
63	Water entry of small hydrophobic spheres. <i>Journal of Fluid Mechanics</i> , 2009, 619, 45-78.	1.4	283
64	The fluid trampoline: droplets bouncing on a soap film. <i>Journal of Fluid Mechanics</i> , 2009, 625, 167-203.	1.4	80
65	Viscous sheet retraction. <i>Journal of Fluid Mechanics</i> , 2009, 626, 211-240.	1.4	122
66	Crawling beneath the free surface: Water snail locomotion. <i>Physics of Fluids</i> , 2008, 20, .	1.6	35
67	Underwater breathing: the mechanics of plastron respiration. <i>Journal of Fluid Mechanics</i> , 2008, 608, 275-296.	1.4	156
68	The Integument of Water-walking Arthropods: Form and Function. <i>Advances in Insect Physiology</i> , 2007, , 117-192.	1.1	192
69	Spontaneous oscillations of a sessile lens. <i>Journal of Fluid Mechanics</i> , 2007, 583, 465-475.	1.4	32
70	Water-walking devices. <i>Experiments in Fluids</i> , 2007, 43, 769-778.	1.1	75
71	An experimental investigation of the stability of the circular hydraulic jump. <i>Journal of Fluid Mechanics</i> , 2006, 558, 33.	1.4	97
72	WALKING ON WATER: Biocomotion at the Interface. <i>Annual Review of Fluid Mechanics</i> , 2006, 38, 339-369.	10.8	454

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73	Meniscus-climbing insects. <i>Nature</i> , 2005, 437, 733-736.	13.7	234
74	Particle concentration evolution and sedimentation-induced instabilities in a stably stratified environment. <i>Physics of Fluids</i> , 2005, 17, 073302.	1.6	30
75	The stratified Boycott effect. <i>Journal of Fluid Mechanics</i> , 2005, 529, 33-49.	1.4	20
76	An experimental investigation of spin-up from rest of a stratified fluid. <i>Geophysical and Astrophysical Fluid Dynamics</i> , 2004, 98, 277-296.	0.4	10
77	On the collision of laminar jets: fluid chains and fishbones. <i>Journal of Fluid Mechanics</i> , 2004, 511, 285-310.	1.4	151
78	The hydrodynamics of water strider locomotion. <i>Nature</i> , 2003, 424, 663-666.	13.7	628
79	Particle clouds in homogeneous and stratified environments. <i>Journal of Fluid Mechanics</i> , 2003, 489, 29-54.	1.4	88
80	The influence of surface tension on the circular hydraulic jump. <i>Journal of Fluid Mechanics</i> , 2003, 489, 229-238.	1.4	149
81	A laboratory model of splash-form tektites. <i>Meteoritics and Planetary Science</i> , 2003, 38, 1331-1340.	0.7	41
82	Spin-up from rest in a stratified fluid: boundary flows. <i>Journal of Fluid Mechanics</i> , 2002, 472, 51-82.	1.4	30
83	Fluid pipes. <i>Journal of Fluid Mechanics</i> , 2002, 466, 285-304.	1.4	30
84	Evaporative instabilities in climbing films. <i>Journal of Fluid Mechanics</i> , 2001, 442, 217-239.	1.4	81
85	Hyperpycnal plume formation from riverine outflows with small sediment concentrations. <i>Sedimentology</i> , 2001, 48, 465-478.	1.6	261
86	An investigation of the link between lead-induced thermohaline convection and Arctic eddies. <i>Geophysical Research Letters</i> , 2000, 27, 1179-1182.	1.5	5
87	Vortex generation by line plumes in a rotating stratified fluid. <i>Journal of Fluid Mechanics</i> , 1999, 388, 289-313.	1.4	26