John W M Bush

List of Publications by Year
in descending order

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	Hydrodynamic superradiance in wave-mediated cooperative tunneling. Communications Physics, 2022, 5, .	5.3	9
2	Classical pilot-wave dynamics: The free particle. Chaos, 2021, 31, 033136.	2.5	10
3	A guideline to limit indoor airborne transmission of COVID-19. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	313
4	Emergent order in hydrodynamic spin lattices. Nature, 2021, 596, 58-62.	27.8	29
5	Hydrodynamic quantum analogs. Reports on Progress in Physics, 2021, 84, 017001.	20.1	58
6	Monitoring carbon dioxide to quantify the risk of indoor airborne transmission of COVID-19. Flow, 2021, 1, .	2.6	32
7	Free rings of bouncing droplets: stability and dynamics. Journal of Fluid Mechanics, 2020, 903, .	3.4	11
8	Speed oscillations in classical pilot-wave dynamics. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2020, 476, 20190884.	2.1	17
9	Hydrodynamic Quantum Field Theory: The Onset of Particle Motion and the Form of the Pilot Wave. Frontiers in Physics, 2020, 8, .	2.1	14
10	Predictability in a hydrodynamic pilot-wave system: Resolution of walker tunneling. Physical Review E, 2020, 102, 013104.	2.1	18
11	A hydrodynamic analog of Friedel oscillations. Science Advances, 2020, 6, eaay9234.	10.3	31
12	Hydrodynamic quantum field theory: the free particle. Comptes Rendus - Mecanique, 2020, 348, 555-571.	0.7	14
13	Bouncing phase variations in pilot-wave hydrodynamics and the stability of droplet pairs. Journal of Fluid Mechanics, 2019, 871, 212-243.	3.4	23
14	Walking droplets interacting with single and double slits. Journal of Fluid Mechanics, 2018, 835, 1136-1156.	3.4	46
15	Introduction to focus issue on hydrodynamic quantum analogs. Chaos, 2018, 28, 096001.	2.5	31
16	Dynamics, emergent statistics, and the mean-pilot-wave potential of walking droplets. Chaos, 2018, 28, 096108.	2.5	26
17	Exploring orbital dynamics and trapping with a generalized pilot-wave framework. Chaos, 2018, 28, 096115.	2.5	13
18	Walking droplets in a circular corral: Quantisation and chaos. Chaos, 2018, 28, 096116.	2.5	32

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19	The interaction of a walking droplet and a submerged pillar: From scattering to the logarithmic spiral. Chaos, 2018, 28, 096105.	2.5	15
20	Hydrodynamic spin states. Chaos, 2018, 28, 096106.	2.5	29
21	Statistical projection effects in a hydrodynamic pilot-wave system. Nature Physics, 2018, 14, 315-319.	16.7	61
22	Promenading pairs of walking droplets: Dynamics and stability. Physical Review Fluids, 2018, 3, .	2.5	30
23	Spin lattices of walking droplets. Physical Review Fluids, 2018, 3, .	2.5	16
24	Thermal delay of drop coalescence. Journal of Fluid Mechanics, 2017, 833, .	3.4	38
25	Visualization of hydrodynamic pilot-wave phenomena. Journal of Visualization, 2017, 20, 13-15.	1.8	14
26	Tunneling with a hydrodynamic pilot-wave model. Physical Review Fluids, 2017, 2, .	2.5	42
27	Orbiting pairs of walking droplets: Dynamics and stability. Physical Review Fluids, 2017, 2, .	2.5	33
28	Simulations of pilot-wave dynamics in a simple harmonic potential. Physical Review Fluids, 2017, 2, .	2.5	20
29	The onset of chaos in orbital pilot-wave dynamics. Chaos, 2016, 26, 103107.	2.5	26
30	Non-specular reflection of walking droplets. Journal of Fluid Mechanics, 2016, 804, .	3.4	32
31	Electrically induced drop detachment and ejection. Physics of Fluids, 2016, 28, .	4.0	44
32	Surface topography measurements of the bouncing droplet experiment. Experiments in Fluids, 2016, 57, 1.	2.4	33
33	Drop impact and capture on a thin flexible fiber. Soft Matter, 2016, 12, 149-156.	2.7	28
34	Merger of a bubble and a soap film. Physical Review Fluids, 2016, 1, .	2.5	2
35	Shedding light on pilot-wave phenomena. Physical Review Fluids, 2016, 1, .	2.5	5
36	Faraday pilot-wave dynamics: modelling and computation. Journal of Fluid Mechanics, 2015, 778, 361-388.	3.4	67

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37	The new wave of pilot-wave theory. Physics Today, 2015, 68, 47-53.	0.3	65
38	A low-cost, precise piezoelectric droplet-on-demand generator. Experiments in Fluids, 2015, 56, 1.	2.4	60
39	Generating uniaxial vibration with an electrodynamic shaker and external air bearing. Journal of Sound and Vibration, 2015, 334, 255-269.	3.9	46
40	Pilot-Wave Hydrodynamics. Annual Review of Fluid Mechanics, 2015, 47, 269-292.	25.0	223
41	The Cocktail Boat. Integrative and Comparative Biology, 2014, 54, 969-973.	2.0	21
42	Pilot-wave hydrodynamics in a rotating frame: Exotic orbits. Physics of Fluids, 2014, 26, .	4.0	44
43	Violent expiratory events: on coughing and sneezing. Journal of Fluid Mechanics, 2014, 745, 537-563.	3.4	655
44	Droplets walking in a rotating frame: from quantized orbits to multimodal statistics. Journal of Fluid Mechanics, 2014, 739, 444-464.	3.4	84
45	The wave-induced added mass of walking droplets. Journal of Fluid Mechanics, 2014, 755, .	3.4	27
46	Pilot-wave dynamics in a rotating frame: on the emergence of orbital quantization. Journal of Fluid Mechanics, 2014, 744, 404-429.	3.4	91
47	Wavelike statistics from pilot-wave dynamics in a circular corral. Physical Review E, 2013, 88, 011001.	2.1	115
48	Exotic states of bouncing and walking droplets. Physics of Fluids, 2013, 25, .	4.0	63
49	Biomimicry and the culinary arts. Bioinspiration and Biomimetics, 2013, 8, 044003.	2.9	13
50	Drops bouncing on a vibrating bath. Journal of Fluid Mechanics, 2013, 727, 582-611.	3.4	115
51	Drops walking on a vibrating bath: towards a hydrodynamic pilot-wave theory. Journal of Fluid Mechanics, 2013, 727, 612-647.	3.4	124
52	A trajectory equation for walking droplets: hydrodynamic pilot-wave theory. Journal of Fluid Mechanics, 2013, 737, 552-570.	3.4	98
53	Droplets bouncing on a wet, inclined surface. Physics of Fluids, 2012, 24, .	4.0	75
54	Natural drinking strategies. Journal of Fluid Mechanics, 2012, 705, 7-25.	3.4	88

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55	The hydrodynamics of water-walking arthropods. Journal of Fluid Mechanics, 2010, 644, 5-33.	3.4	130
56	Quantum mechanics writ large. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 17455-17456.	7.1	43
57	The water entry of decelerating spheres. Physics of Fluids, 2010, 22, .	4.0	187
58	Grabbing water. Soft Matter, 2010, 6, 5705.	2.7	36
59	Chaotic Bouncing of a Droplet on a Soap Film. Physical Review Letters, 2009, 102, 014501.	7.8	49
60	The influence of surface tension gradients on drop coalescence. Physics of Fluids, 2009, 21, .	4.0	84
61	Flow visualization using tobacco mosaic virus. Experiments in Fluids, 2009, 46, 477-484.	2.4	10
62	Freshwater Discharge, Sediment Transport, and Modeled Climate Impacts of the Final Drainage of Glacial Lake Agassiz. Journal of Climate, 2009, 22, 2161-2180.	3.2	44
63	Water entry of small hydrophobic spheres. Journal of Fluid Mechanics, 2009, 619, 45-78.	3.4	283
64	The fluid trampoline: droplets bouncing on a soap film. Journal of Fluid Mechanics, 2009, 625, 167-203.	3.4	80
65	Viscous sheet retraction. Journal of Fluid Mechanics, 2009, 626, 211-240.	3.4	122
66	Crawling beneath the free surface: Water snail locomotion. Physics of Fluids, 2008, 20, .	4.0	35
67	Underwater breathing: the mechanics of plastron respiration. Journal of Fluid Mechanics, 2008, 608, 275-296.	3.4	156
68	The Integument of Water-walking Arthropods: Form and Function. Advances in Insect Physiology, 2007, , 117-192.	2.7	192
69	Spontaneous oscillations of a sessile lens. Journal of Fluid Mechanics, 2007, 583, 465-475.	3.4	32
70	Water-walking devices. Experiments in Fluids, 2007, 43, 769-778.	2.4	75
71	An experimental investigation of the stability of the circular hydraulic jump. Journal of Fluid Mechanics, 2006, 558, 33.	3.4	97
72	WALKING ON WATER: Biolocomotion at the Interface. Annual Review of Fluid Mechanics, 2006, 38, 339-369.	25.0	454

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73	Meniscus-climbing insects. Nature, 2005, 437, 733-736.	27.8	234
74	Particle concentration evolution and sedimentation-induced instabilities in a stably stratified environment. Physics of Fluids, 2005, 17, 073302.	4.0	30
75	The stratified Boycott effect. Journal of Fluid Mechanics, 2005, 529, 33-49.	3.4	20
76	An experimental investigation of spin-up from rest of a stratified fluid. Geophysical and Astrophysical Fluid Dynamics, 2004, 98, 277-296.	1.2	10
77	On the collision of laminar jets: fluid chains and fishbones. Journal of Fluid Mechanics, 2004, 511, 285-310.	3.4	151
78	The hydrodynamics of water strider locomotion. Nature, 2003, 424, 663-666.	27.8	628
79	Particle clouds in homogeneous and stratified environments. Journal of Fluid Mechanics, 2003, 489, 29-54.	3.4	88
80	The influence of surface tension on the circular hydraulic jump. Journal of Fluid Mechanics, 2003, 489, 229-238.	3.4	149
81	A laboratory model of splashâ€form tektites. Meteoritics and Planetary Science, 2003, 38, 1331-1340.	1.6	41
82	Spin-up from rest in a stratified fluid: boundary flows. Journal of Fluid Mechanics, 2002, 472, 51-82.	3.4	30
83	Fluid pipes. Journal of Fluid Mechanics, 2002, 466, 285-304.	3.4	30
84	Evaporative instabilities in climbing films. Journal of Fluid Mechanics, 2001, 442, 217-239.	3.4	81
85	Hyperpycnal plume formation from riverine outflows with small sediment concentrations. Sedimentology, 2001, 48, 465-478.	3.1	261
86	An investigation of the link between lead-induced thermohaline convection and Arctic eddies. Geophysical Research Letters, 2000, 27, 1179-1182.	4.0	5
87	Vortex generation by line plumes in a rotating stratified fluid. Journal of Fluid Mechanics, 1999, 388, 289-313.	3.4	26