

Philippe Marmottant

List of Publications by Year in descending order

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39
papers

3,307
citations

279487

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h-index

315357

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docs citations

39
times ranked

3166
citing authors

#	ARTICLE	IF	CITATIONS
1	Drying by pervaporation in elementary channel networks. <i>Journal of Fluid Mechanics</i> , 2021, 906, .	1.4	3
2	Pervaporation-induced drying in networks of channels of variable width. <i>Microfluidics and Nanofluidics</i> , 2021, 25, 1.	1.0	2
3	Multi-directional bubble generated streaming flows. <i>Ultrasonics</i> , 2020, 102, 106054.	2.1	6
4	Nonlinear dynamics of two coupled bubbles oscillating inside a liquid-filled cavity surrounded by an elastic medium. <i>Physical Review E</i> , 2019, 99, 053106.	0.8	10
5	Drying of channels by evaporation through a permeable medium. <i>Journal of the Royal Society Interface</i> , 2019, 16, 20180690.	1.5	9
6	Bubble Dynamics in Soft and Biological Matter. <i>Annual Review of Fluid Mechanics</i> , 2019, 51, 331-355.	10.8	117
7	Natural oscillations of a gas bubble in a liquid-filled cavity located in a viscoelastic medium. <i>Journal of Sound and Vibration</i> , 2018, 420, 61-72.	2.1	14
8	Model for the growth and the oscillation of a cavitation bubble in a spherical liquid-filled cavity enclosed in an elastic medium. <i>Physical Review E</i> , 2018, 97, 013108.	0.8	19
9	Cavitation in a liquid-filled cavity surrounded by an elastic medium: Intercoupling of cavitation events in neighboring cavities. <i>Physical Review E</i> , 2018, 98, 013108.	0.8	4
10	Trapping and exclusion zones in complex streaming patterns around a large assembly of microfluidic bubbles under ultrasound. <i>Physical Review Fluids</i> , 2018, 3, .	1.0	4
11	Bubble-based acoustic micropropulsors: active surfaces and mixers. <i>Lab on A Chip</i> , 2017, 17, 1515-1528.	3.1	31
12	On the statics and dynamics of fully confined bubbles. <i>Journal of Fluid Mechanics</i> , 2017, 827, 194-224.	1.4	42
13	Radiation dynamics of a cavitation bubble in a liquid-filled cavity surrounded by an elastic solid. <i>Physical Review E</i> , 2017, 95, 053104.	0.8	8
14	Visual quantification of embolism reveals leaf vulnerability to hydraulic failure. <i>New Phytologist</i> , 2016, 209, 1403-1409.	3.5	213
15	Revealing catastrophic failure of leaf networks under stress. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 4865-4869.	3.3	146
16	Acoustic streaming produced by a cylindrical bubble undergoing volume and translational oscillations in a microfluidic channel. <i>Physical Review E</i> , 2016, 94, 033109.	0.8	3
17	Acoustic pulsation of a microbubble confined between elastic walls. <i>Physics of Fluids</i> , 2016, 28, 032004.	1.6	15
18	Propulsion of Bubble-Based Acoustic Microswimmers. <i>Physical Review Applied</i> , 2015, 4, .	1.5	74

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19	The fast dynamics of cavitation bubbles within water confined in elastic solids. <i>Soft Matter</i> , 2014, 10, 1455.	1.2	58
20	Physique des mouvements rapides chez les plantes. , 2014, , 4-8.	0.1	0
21	A dynamical model for the <i>Utricularia</i> trap. <i>Journal of the Royal Society Interface</i> , 2012, 9, 3129-3139.	1.5	11
22	Birth and Growth of Cavitation Bubbles within Water under Tension Confined in a Simple Synthetic Tree. <i>Physical Review Letters</i> , 2012, 108, 184502.	2.9	80
23	Biodegradable polymeric microcapsules for selective ultrasound-triggered drug release. <i>Soft Matter</i> , 2011, 7, 5417.	1.2	67
24	Buckling resistance of solid shell bubbles under ultrasound. <i>Journal of the Acoustical Society of America</i> , 2011, 129, 1231-1239.	0.5	64
25	Carnivorous Utricularia: The buckling scenario. <i>Plant Signaling and Behavior</i> , 2011, 6, 1752-1754.	1.2	13
26	Mechanical model of the ultrafast underwater trap of <i>Utricularia</i>. <i>Physical Review E</i> , 2011, 83, 021911.	0.8	20
27	Acoustically Bound Microfluidic Bubble Crystals. <i>Physical Review Letters</i> , 2011, 106, 134501.	2.9	43
28	Ultra-fast underwater suction traps. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2011, 278, 2909-2914.	1.2	95
29	Spontaneous Firings of Carnivorous Aquatic Utricularia Traps: Temporal Patterns and Mechanical Oscillations. <i>PLoS ONE</i> , 2011, 6, e20205.	1.1	29
30	Microfluidic Crystals: Dynamic Interplay between Rearrangement Waves and Flow. <i>Physical Review Letters</i> , 2009, 102, 084501.	2.9	62
31	Microfluidics with foams. <i>Soft Matter</i> , 2009, 5, 3385.	1.2	83
32	Deformation and rupture of lipid vesicles in the strong shear flow generated by ultrasound-driven microbubbles. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2008, 464, 1781-1800.	1.0	49
33	Role of the Channel Geometry on the Bubble Pinch-Off in Flow-Focusing Devices. <i>Physical Review Letters</i> , 2008, 100, 034504.	2.9	196
34	High-speed imaging of an ultrasound-driven bubble in contact with a wall: â€œNarcissusâ€ effect and resolved acoustic streaming. <i>Experiments in Fluids</i> , 2006, 41, 147-153.	1.1	81
35	Periodic Microfluidic Bubbling Oscillator: Insight into the Stability of Two-Phase Microflows. <i>Physical Review Letters</i> , 2006, 97, 154501.	2.9	46
36	A model for large amplitude oscillations of coated bubbles accounting for buckling and rupture. <i>Journal of the Acoustical Society of America</i> , 2005, 118, 3499-3505.	0.5	587

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37	A bubble-driven microfluidic transport element for bioengineering. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 9523-9527.	3.3	173
38	Ultrasound-induced microbubble coalescence. Ultrasound in Medicine and Biology, 2004, 30, 1337-1344.	0.7	99
39	Controlled vesicle deformation and lysis by single oscillating bubbles. Nature, 2003, 423, 153-156.	13.7	731