

Mark A Stremler

List of Publications by Year in descending order

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Version: 2024-02-01

67
papers

2,779
citations

331538

21
h-index

189801

50
g-index

70
all docs

70
docs citations

70
times ranked

2661
citing authors

#	ARTICLE	IF	CITATIONS
1	Flow visualization data from experiments with an oscillating circular cylinder in a gravity-driven soap film. <i>Data in Brief</i> , 2022, 41, 107819.	0.5	0
2	On the Topology of the Atmosphere Advection by a Periodic Array of Axisymmetric Thin-cored Vortex Rings. <i>Regular and Chaotic Dynamics</i> , 2022, 27, 183-197.	0.3	0
3	On flowing soap films as experimental models of 2D Navier–Stokes flows. <i>Experiments in Fluids</i> , 2021, 62, 1.	1.1	1
4	The wake of a transversely oscillating circular cylinder in a flowing soap film at low Reynolds number. <i>Journal of Fluids and Structures</i> , 2021, 105, 103343.	1.5	5
5	Celebrating the 200th Anniversary of the Birth of Hermann Ludwig Ferdinand von Helmholtz (31.08.1821–08.09.1894). <i>Regular and Chaotic Dynamics</i> , 2021, 26, 463-466.	0.3	1
6	Something Old, Something New: Three Point Vortices on the Plane. <i>Regular and Chaotic Dynamics</i> , 2021, 26, 482-504.	0.3	1
7	Streamline patterns in 2P vortex street equilibria – CORRIGENDUM. <i>Journal of Fluid Mechanics</i> , 2020, 901, .	1.4	1
8	Critical spacing of stationary tandem circular cylinders at $R < e < 100$. <i>Journal of Fluids and Structures</i> , 2019, 89, 49-60.	1.5	31
9	Microfluidic reactors for advancing the MS analysis of fast biological responses. <i>Microsystems and Nanoengineering</i> , 2019, 5, 7.	3.4	10
10	Burst mode pumping: A new mechanism of drinking in mosquitoes. <i>Scientific Reports</i> , 2018, 8, 4885.	1.6	17
11	Finite-time Collapse of Three Point Vortices in the Plane. <i>Regular and Chaotic Dynamics</i> , 2018, 23, 530-550.	0.3	13
12	Fluid shear stress impacts ovarian cancer cell viability, subcellular organization, and promotes genomic instability. <i>PLoS ONE</i> , 2018, 13, e0194170.	1.1	57
13	Evolving geometry of a vortex triangle. <i>Physical Review Fluids</i> , 2018, 3, .	1.0	2
14	Energy transfer between multiple vibrating bimorphs through flow interactions in an otherwise quiescent fluid domain. , 2018, , .		0
15	Exploring the dynamics of \hat{A} wakes with reflective symmetry using point vortices. <i>Journal of Fluid Mechanics</i> , 2017, 831, 72-100.	1.4	9
16	Parametric study of fluid flow manipulation with piezoelectric macrofiber composite flaps. <i>Proceedings of SPIE</i> , 2017, , .	0.8	0
17	Effects of Vessel Tortuosity on Coronary Hemodynamics: An Idealized and Patient-Specific Computational Study. <i>Annals of Biomedical Engineering</i> , 2016, 44, 2228-2239.	1.3	51
18	On the motion of two point vortex pairs with glide-reflective symmetry in a periodic strip. <i>Physics of Fluids</i> , 2015, 27, 103603.	1.6	12

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19	Mixing Measures. , 2015, , 2260-2269.		0
20	On point vortex models of exotic bluff body wakes. Fluid Dynamics Research, 2014, 46, 061410.	0.6	14
21	Mixing Measures. , 2014, , 1-12.		0
22	Recent Progress in the Relative Equilibria of Point Vortices " In Memoriam Hassan Aref. Procedia IUTAM, 2013, 7, 3-12.	1.2	2
23	Label-free Isolation and Enrichment of Cells Through Contactless Dielectrophoresis. Journal of Visualized Experiments, 2013, , .	0.2	13
24	Topological chaos, braiding and bifurcation of almost-cyclic sets. Chaos, 2012, 22, 043135.	1.0	18
25	Mixing Analysis in a Lid-Driven Cavity Flow at Finite Reynolds Numbers. Journal of Fluids Engineering, Transactions of the ASME, 2012, 134, .	0.8	8
26	Isolation of rare cancer cells from blood cells using dielectrophoresis. , 2012, 2012, 590-3.		13
27	Isolation of prostate tumor initiating cells (TICs) through their dielectrophoretic signature. Lab on A Chip, 2012, 12, 182-189.	3.1	108
28	Investigating Dielectrophoretic Signature of Mouse Ovarian Surface Epithelial Cells, Macrophages and Fibroblasts. , 2012, , .		0
29	Mixing Enhancement in Microfluidic Devices Using Contactless Dielectrophoresis (cDEP). , 2011, , .		0
30	Disabled β 2 modulates homotypic and heterotypic platelet interactions by binding to sulfatides. British Journal of Haematology, 2011, 154, 122-133.	1.2	18
31	Hassan Aref (1950"2011). Regular and Chaotic Dynamics, 2011, 16, 671-684.	0.3	3
32	Nonlinear excursions of particles in ideal 2D flows. Physica D: Nonlinear Phenomena, 2011, 240, 199-207.	1.3	4
33	Microfluidic mixing using contactless dielectrophoresis. Electrophoresis, 2011, 32, 2569-2578.	1.3	31
34	A mathematical model of 2P and 2C vortex wakes. Journal of Fluids and Structures, 2011, 27, 774-783.	1.5	16
35	Topological Chaos and Periodic Braiding of Almost-Cyclic Sets. Physical Review Letters, 2011, 106, 114101.	2.9	27
36	Enrichment of Cancer Cells Using a High Throughput Contactless Dielectrophoretic (CDEP) Microfluidic Device. , 2011, , .		0

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37	On relative equilibria and integrable dynamics of point vortices in periodic domains. <i>Theoretical and Computational Fluid Dynamics</i> , 2010, 24, 25-37.	0.9	14
38	Topological chaos and mixing in a three-dimensional channel flow. <i>Physics of Fluids</i> , 2009, 21, .	1.6	9
39	Flow structure in a wide microchannel with surface grooves. <i>Mechanics Research Communications</i> , 2009, 36, 125-129.	1.0	18
40	Fluid Mixing Chaotic Advection and Microarray Analysis. <i>CISM International Centre for Mechanical Sciences, Courses and Lectures</i> , 2009, , 323-337.	0.3	1
41	Mixing Measures. , 2008, , 1376-1382.		2
42	Generating topological chaos in lid-driven cavity flow. <i>Physics of Fluids</i> , 2007, 19, 103602.	1.6	27
43	Point vortex models of bluff body wakes. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2007, 7, 1101305-1101306.	0.2	1
44	Experimental defect analysis and force prediction simulation of high weld pitch friction stir welding. <i>Science and Technology of Welding and Joining</i> , 2006, 11, 657-665.	1.5	77
45	A Pulsed Source-Sink Fluid Mixing Device. <i>Journal of Microelectromechanical Systems</i> , 2006, 15, 259-266.	1.7	23
46	Exotic vortex wakesâ€”point vortex solutions. <i>Journal of Fluids and Structures</i> , 2006, 22, 929-940.	1.5	20
47	A maximum entropy approach to optimal mixing in a pulsed sourceâ€”sink flow. <i>Physics of Fluids</i> , 2006, 18, 011701.	1.6	27
48	Computational Modeling of a Cell-Based Microphysiometer. , 2006, , .		0
49	Effects of flow and diffusion on chemotaxis studies in a microfabricated gradient generator. <i>Lab on A Chip</i> , 2005, 5, 611.	3.1	242
50	Evaluation of phase-modulated lattice sums. <i>Journal of Mathematical Physics</i> , 2004, 45, 3584-3589.	0.5	9
51	Chaotic mixer improves microarray hybridization. <i>Analytical Biochemistry</i> , 2004, 325, 215-226.	1.1	76
52	Designing for chaos: applications of chaotic advection at the microscale. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2004, 362, 1019-1036.	1.6	104
53	Topological fluid mechanics of point vortex motions. <i>Physica D: Nonlinear Phenomena</i> , 2003, 175, 69-95.	1.3	70
54	Vortex Crystals. <i>Advances in Applied Mechanics</i> , 2003, 39, 1-79.	1.4	152

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55	Relative equilibria of singly periodic point vortex arrays. <i>Physics of Fluids</i> , 2003, 15, 3767-3775.	1.6	16
56	Characterization of Chaotic Motion of DNA in Linear Shear Flows. , 2003, , .		0
57	Enhancing DNA Microarray Analysis With Pulsed Source-Sink Flows. , 2003, , .		0
58	MÃfÂ©lange passif dans les microcanaux : fabrication et expÃfÂ©rience. <i>Mecanique Et Industries</i> , 2001, 2, 343-348.	0.2	62
59	Point Vortex Models and the Dynamics of Strong Vortices in the Atmosphere and Oceans. <i>Lecture Notes in Physics</i> , 2001, , 1-17.	0.3	5
60	Topological fluid mechanics of stirring. <i>Journal of Fluid Mechanics</i> , 2000, 403, 277-304.	1.4	140
61	Passive mixing in a three-dimensional serpentine microchannel. <i>Journal of Microelectromechanical Systems</i> , 2000, 9, 190-197.	1.7	1,052
62	TiO2 Surface Modifications for Light Modulated Control of Flow Velocity. , 2000, , 331-334.		1
63	Four-vortex motion with zero total circulation and impulse. <i>Physics of Fluids</i> , 1999, 11, 3704-3715.	1.6	48
64	Motion of three point vortices in a periodic parallelogram. <i>Journal of Fluid Mechanics</i> , 1999, 392, 101-128.	1.4	50
65	On the motion of three point vortices in a periodic strip. <i>Journal of Fluid Mechanics</i> , 1996, 314, 1-25.	1.4	43
66	Analysis of natural convection in a rotating open loop. <i>Journal of Thermophysics and Heat Transfer</i> , 1994, 8, 100-106.	0.9	1
67	Improving DNA microarray hybridization with a pulsed source-sink mixing device. , 0, , .		3