

Andrew J Szeri

List of Publications by Year in descending order

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91
papers

3,094
citations

147801

31
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161849

54
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91
all docs

91
docs citations

91
times ranked

2293
citing authors

#	ARTICLE	IF	CITATIONS
1	Modeling the acute effects of exercise on glucose dynamics in healthy nondiabetic subjects. Journal of Pharmacokinetics and Pharmacodynamics, 2021, 48, 225-239.	1.8	3
2	Pulmonary mechanics and gas exchange: a mathematical framework. International Journal of Engineering Science, 2020, 154, 103276.	5.0	3
3	Modeling the acute effects of exercise on insulin kinetics in type 1 diabetes. Journal of Pharmacokinetics and Pharmacodynamics, 2018, 45, 829-845.	1.8	7
4	Boundary layers at a dynamic interface: Air-sea exchange of heat and mass. Journal of Geophysical Research: Oceans, 2017, 122, 2781-2794.	2.6	5
5	Coupled gel spreading and diffusive transport models describing microbicidal drug delivery. Chemical Engineering Science, 2016, 152, 12-20.	3.8	2
6	Closed-loop feedback control and bifurcation analysis of epileptiform activity via optogenetic stimulation in a mathematical model of human cortex. Physical Review E, 2016, 93, 012416.	2.1	14
7	Bubble Proliferation or Dissolution of Cavitation Nuclei in the Beam Path of a Shock-Wave Lithotripter. Physical Review Applied, 2015, 3, .	3.8	12
8	Optogenetic induced epileptiform activity in a model human cortex. SpringerPlus, 2015, 4, 155.	1.2	3
9	A probabilistic method for determining cortical dynamics during seizures. Journal of Computational Neuroscience, 2015, 38, 559-575.	1.0	6
10	Emergence from general anesthesia and the sleep-manifold. Frontiers in Systems Neuroscience, 2014, 8, 146.	2.5	42
11	A probabilistic framework for a physiological representation of dynamically evolving sleep state. Journal of Computational Neuroscience, 2014, 37, 105-124.	1.0	12
12	Open loop optogenetic control of simulated cortical epileptiform activity. Journal of Computational Neuroscience, 2014, 36, 515-525.	1.0	18
13	Mechanical clot damage from cavitation during sonothrombolysis. Journal of the Acoustical Society of America, 2013, 133, 3159-3175.	1.1	35
14	Transient swelling, spreading, and drug delivery by a dissolved anti-HIV microbicide-bearing film. Physics of Fluids, 2013, 25, 31901.	4.0	16
15	Adaptive control of contrast agent microbubbles for shell parameter identification. Journal of the Acoustical Society of America, 2012, 131, 2579-2586.	1.1	2
16	Transient spreading and swelling behavior of a gel deploying an anti-HIV topical microbicide. Journal of Non-Newtonian Fluid Mechanics, 2012, 187-188, 36-42.	2.4	18
17	Interpretation of seizure evolution pathways via a mean-field cortical model. BMC Neuroscience, 2012, 13, .	1.9	5
18	The effects of inhomogeneous boundary dilution on the coating flow of an anti-HIV microbicide vehicle. Physics of Fluids, 2011, 23, 093101.	4.0	16

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19	Transport Processes in Vaginal Films that Release Anti-HIV Microbicide Molecules. <i>Biophysical Journal</i> , 2011, 100, 489a.	0.5	6
20	The consequences of yield stress on deployment of a non-Newtonian anti-HIV microbicide gel. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2011, 166, 1116-1122.	2.4	15
21	A continuous mapping of sleep states through association of EEG with a mesoscale cortical model. <i>Journal of Computational Neuroscience</i> , 2011, 30, 471-487.	1.0	19
22	Mechanics of liquid-liquid interfaces and mixing enhancement in microscale flows. <i>Journal of Fluid Mechanics</i> , 2010, 652, 207-240.	3.4	8
23	A model of feedback control for the charge-balanced suppression of epileptic seizures. <i>Journal of Computational Neuroscience</i> , 2010, 28, 375-387.	1.0	17
24	Impact of a compound droplet on a flat surface: A model for single cell epitaxy. <i>Physics of Fluids</i> , 2010, 22, .	4.0	91
25	Epithelial Coating Mechanisms by Semi-Solid Materials: Application to Microbicide Gels. <i>Biophysical Journal</i> , 2010, 98, 604a.	0.5	3
26	Increasing the Effectiveness of Vaginal Microbicides: A Biophysical Framework to Rethink Behavioral Acceptability. <i>PLoS ONE</i> , 2010, 5, e15501.	2.5	12
27	NESTED INVARIANT 3-TORI EMBEDDED IN A SEA OF CHAOS IN A QUASIPERIODIC FLUID FLOW. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 2009, 19, 2181-2191.	1.7	2
28	Adaptive Sliding-Mode Control of a Charged Particle in an Ion Trap. <i>IEEE Transactions on Control Systems Technology</i> , 2009, 17, 1083-1095.	5.2	2
29	Dilution of Microbicide Gels With Vaginal Fluid and Semen Simulants: Effect on Rheological Properties and Coating Flow. <i>Journal of Pharmaceutical Sciences</i> , 2008, 97, 1030-1038.	3.3	43
30	Dynamics of bubbles near a rigid surface subjected to a lithotripter shock wave. Part 1. Consequences of interference between incident and reflected waves. <i>Journal of Fluid Mechanics</i> , 2008, 616, 43-61.	3.4	29
31	Dynamics of bubbles near a rigid surface subjected to a lithotripter shock wave. Part 2. Reflected shock intensifies non-spherical cavitation collapse. <i>Journal of Fluid Mechanics</i> , 2008, 616, 63-97.	3.4	58
32	Targeted O ₂ delivery by blood substitutes: in vitro arteriolar simulations of first- and second-generation products. <i>Microvascular Research</i> , 2008, 76, 169-179.	2.5	10
33	SADDLE-TYPE TORUS BRAIDS IN QUASIPERIODICALLY DRIVEN SYSTEMS: CROSSOVER MAPS OF TRANSVERSALLY INTERSECTING MANIFOLDS. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 2008, 18, 3001-3012.	1.7	1
34	Optimized translation of microbubbles driven by acoustic fields. <i>Journal of the Acoustical Society of America</i> , 2008, 123, 1916-1930.	1.1	15
35	A model of transluminal flow of an anti-HIV microbicide vehicle: Combined elastic squeezing and gravitational sliding. <i>Physics of Fluids</i> , 2008, 20, 83101.	4.0	29
36	Spatial Considerations of Feedback Control for the Suppression of Epileptic Seizures. , 2008, , 495-500.		0

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37	SYNCHRONIZATION MEASURES OF THE SCALP ELECTROENCEPHALOGRAM CAN DISCRIMINATE HEALTHY FROM ALZHEIMER'S SUBJECTS. <i>International Journal of Neural Systems</i> , 2007, 17, 61-69.	5.2	59
38	Shape stability and violent collapse of microbubbles in acoustic traveling waves. <i>Physics of Fluids</i> , 2007, 19, 047101.	4.0	87
39	Assessment of shock wave lithotripters via cavitation potential. <i>Physics of Fluids</i> , 2007, 19, 86103.	4.0	31
40	Light emission during shock wave focusing in air and argon. <i>Physics of Fluids</i> , 2007, 19, 106106.	4.0	16
41	Interaction of lithotripter shockwaves with single inertial cavitation bubbles. <i>Journal of Fluid Mechanics</i> , 2007, 593, 33-56.	3.4	93
42	Mechanisms of seizure propagation in a cortical model. <i>Journal of Computational Neuroscience</i> , 2007, 22, 63-80.	1.0	44
43	A quantitative framework for the design of acellular hemoglobins as blood substitutes: Implications of dynamic flow conditions. <i>Biophysical Chemistry</i> , 2007, 128, 63-74.	2.8	20
44	Translation of bubbles subject to weak acoustic forcing and error in decoupling from volume oscillations. <i>Journal of the Acoustical Society of America</i> , 2006, 120, 670-675.	1.1	12
45	Bifurcation control of a seizing human cortex. <i>Physical Review E</i> , 2006, 73, 041928.	2.1	41
46	Topological Bifurcations of Attracting 2-Tori of Quasiperiodically Driven Oscillators. <i>Journal of Nonlinear Science</i> , 2005, 15, 423-452.	2.1	3
47	A new route to chaos: Sequences of topological torus bifurcations. <i>Chaos</i> , 2005, 15, 033108.	2.5	1
48	Pathological pattern formation and cortical propagation of epileptic seizures. <i>Journal of the Royal Society Interface</i> , 2005, 2, 113-127.	3.4	74
49	Quantitative Approximation of the Cortical Surface Potential From EEG and ECoG Measurements. <i>IEEE Transactions on Biomedical Engineering</i> , 2004, 51, 1358-1365.	4.2	10
50	Topology and resonances in a quasiperiodically forced oscillator. <i>Physica D: Nonlinear Phenomena</i> , 2004, 197, 69-85.	2.8	6
51	Synchronization measures of bursting data: Application to the electrocorticogram of an auditory event-related experiment. <i>Physical Review E</i> , 2004, 70, 011914.	2.1	18
52	Cross-Coupling Errors of Micromachined Gyroscopes. <i>Journal of Microelectromechanical Systems</i> , 2004, 13, 323-331.	2.5	16
53	Electrochemomechanical Energy Conversion in Nanofluidic Channels. <i>Nano Letters</i> , 2004, 4, 2315-2321.	9.1	304
54	Heat and mass transfer during the violent collapse of nonspherical bubbles. <i>Physics of Fluids</i> , 2003, 15, 2576-2586.	4.0	69

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55	Optimization of acoustic scattering from dual-frequency driven microbubbles at the difference frequency. <i>Journal of the Acoustical Society of America</i> , 2003, 113, 3073.	1.1	22
56	Argon Rectification and the Cause of Light Emission in Single-Bubble Sonoluminescence. <i>Physical Review Letters</i> , 2002, 88, 074301.	7.8	28
57	Rayleigh-Taylor instability of violently collapsing bubbles. <i>Physics of Fluids</i> , 2002, 14, 2925-2928.	4.0	51
58	Radial response of individual bubbles subjected to shock wave lithotripsy pulses in vitro. <i>Physics of Fluids</i> , 2002, 14, 913-921.	4.0	51
59	Inertially driven inhomogeneities in violently collapsing bubbles: the validity of the Rayleigh-Plesset equation. <i>Journal of Fluid Mechanics</i> , 2002, 452, 145-162.	3.4	109
60	Shape stability of unsteadily translating bubbles. <i>Physics of Fluids</i> , 2002, 14, 2216.	4.0	23
61	Coupled dynamics of translation and collapse of acoustically driven microbubbles. <i>Journal of the Acoustical Society of America</i> , 2002, 112, 1346-1352.	1.1	60
62	Optimal pulse-inversion imaging for microsphere contrast agents. <i>Ultrasound in Medicine and Biology</i> , 2002, 28, 483-494.	1.5	14
63	A reduced model of cavitation physics for use in sonochemistry. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2001, 457, 1685-1700.	2.1	101
64	Shock formation in the presence of entropy gradients. <i>Journal of Fluid Mechanics</i> , 2001, 431, 161-188.	3.4	41
65	Surfactant Scavenging by Microbubble Clouds: Consequences for Capillary Wave Damping. <i>Lecture Notes in Physics</i> , 2001, , 337-352.	0.7	1
66	A deformation tensor model for nonlinear rheology of FENE polymer solutions. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2000, 92, 1-25.	2.4	7
67	Water vapour, sonoluminescence and sonochemistry. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2000, 456, 1685-1709.	2.1	297
68	A new damping mechanism in strongly collapsing bubbles. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2000, 456, 2983-2994.	2.1	35
69	Surfactant Scavenging and Surface Deposition by Rising Bubbles. <i>Journal of Colloid and Interface Science</i> , 1999, 212, 1-13.	9.4	37
70	Shock formation within sonoluminescence bubbles. <i>Physics of Fluids</i> , 1999, 11, 10-17.	4.0	67
71	Mixture segregation within sonoluminescence bubbles. <i>Journal of Fluid Mechanics</i> , 1999, 396, 203-221.	3.4	68
72	The influence of liquid temperature on the sonoluminescence hot spot. <i>Journal of the Acoustical Society of America</i> , 1998, 104, 2073-2076.	1.1	9

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73	Capillary waves and air-sea gas transfer. <i>Journal of Fluid Mechanics</i> , 1997, 332, 341-358.	3.4	30
74	Surfactant dynamics and rectified diffusion of microbubbles. <i>Journal of Fluid Mechanics</i> , 1996, 311, 361.	3.4	37
75	Sonoluminescence and diffusive transport. <i>Physics of Fluids</i> , 1996, 8, 2354-2364.	4.0	88
76	Analytical integration and a numerical method for 1-D compressible flow with diffusive transport. <i>Computers and Fluids</i> , 1996, 25, 1-8.	2.5	5
77	A deformation tensor model of Brownian suspensions of orientable particles—the nonlinear dynamics of closure models. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 1996, 64, 43-69.	2.4	13
78	Exploitation of Brownian motions for the optimal control of fiber orientation distributions. <i>Physics of Fluids</i> , 1996, 8, 1384-1388.	4.0	2
79	Sonoluminescence and the convective/diffusive transport of heat and mass. <i>Journal of the Acoustical Society of America</i> , 1996, 100, 2677-2677.	1.1	0
80	Dissolution or growth of soluble spherical oscillating bubbles: the effect of surfactants. <i>Journal of Fluid Mechanics</i> , 1995, 289, 295-314.	3.4	54
81	A deformation tensor model of liquid crystalline polymers. <i>Journal of Rheology</i> , 1995, 39, 873-891.	2.6	10
82	Orientation dynamics and stretching of particles in unsteady, three-dimensional fluid flows: Unsteady attractors. <i>Chaos, Solitons and Fractals</i> , 1994, 4, 913-927.	5.1	5
83	Dissolution or growth of soluble spherical oscillating bubbles. <i>Journal of Fluid Mechanics</i> , 1994, 277, 381-407.	3.4	190
84	A new computational method for the solution of flow problems of microstructured fluids. Part 2. Inhomogeneous shear flow of a suspension. <i>Journal of Fluid Mechanics</i> , 1994, 262, 171-204.	3.4	32
85	Microstructure suspended in three-dimensional flows. <i>Journal of Fluid Mechanics</i> , 1993, 250, 143-167.	3.4	24
86	A new computational method for the solution of flow problems of microstructured fluids. Part 1. Theory. <i>Journal of Fluid Mechanics</i> , 1992, 242, 549-576.	3.4	37
87	Rigid particles suspended in time-dependent flows: irregular versus regular motion, disorder versus order. <i>Journal of Fluid Mechanics</i> , 1992, 237, 33-56.	3.4	35
88	On the dynamics of suspended microstructure in unsteady, spatially inhomogeneous, two-dimensional fluid flows. <i>Journal of Fluid Mechanics Digital Archive</i> , 1991, 228, 207.	0.6	14
89	Strong flows of dilute suspensions of microstructure. <i>Physics of Fluids A, Fluid Dynamics</i> , 1991, 3, 1438-1438.	1.6	1
90	The onset of chaotic oscillations and rapid growth of a spherical bubble at subcritical conditions in an incompressible liquid. <i>Physics of Fluids A, Fluid Dynamics</i> , 1991, 3, 551-555.	1.6	13

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91	On the convergence of solving a nonlinear Volterra-type integral equation for surface divergence based on surface thermal information. <i>Mathematical Methods in the Applied Sciences</i> , 0, , .	2.3	0