Troy Shinbrot

List of Publications by Year
in descending order

73 papers	4,740 citations	147801 31 h-index	95266 68 g-index
75 all docs	75 docs citations	75 times ranked	2843 citing authors

#	Article	IF	Citations
1	Opportunities for agent based modeling of retinal stem cell transplantation. Neural Regeneration Research, 2022, 17, 1978.	3.0	3
2	Bennu and Ryugu: diamonds in the sky. Granular Matter, 2021, 23, 1.	2.2	2
3	Electrical charging overcomes the bouncing barrier in planet formation. Nature Physics, 2020, 16, 225-229.	16.7	48
4	Long-standing and unresolved issues in triboelectric charging. Nature Reviews Chemistry, 2019, 3, 465-476.	30.2	229
5	Dynamic pilot wave bound states. Chaos, 2019, 29, 113124.	2.5	7
6	Effects of Polarization on Particle-Laden Flows. Physical Review Letters, 2018, 121, 124503.	7.8	15
7	Charging at a distance. Physical Review Materials, 2018, 2, .	2.4	3
8	Multiple timescale contact charging. Physical Review Materials, 2018, 2, .	2.4	5
9	Network simulations of optical illusions. International Journal of Modern Physics C, 2017, 28, 1750018.	1.7	0
10	Size Sorting on the Rubble-Pile Asteroid Itokawa. Physical Review Letters, 2017, 118, 111101.	7.8	17
11	Surface contact charging. Physical Review E, 2017, 96, 032912.	2.1	10
12	Granular chaos and mixing: Whirled in a grain of sand. Chaos, 2015, 25, 097622.	2.5	3
13	Nonlinear granular electrostatics. Granular Matter, 2015, 17, 165-175.	2.2	10
14	Correlations between electrical and mechanical signals during granular stick-slip events. Granular Matter, 2014, 16, 217-222.	2.2	7
15	Self-sustaining charging of identical colliding particles. Physical Review E, 2014, 89, 052208.	2.1	26
16	The movable and the jammed. Nature Physics, 2013, 9, 263-264.	16.7	6
17	Electrostatic precursors to granular slip events. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 10806-10810.	7.1	30
18	AFM study of hydrophilicity on acetaminophen crystals. International Journal of Pharmaceutics, 2012, 438, 184-190.	5.2	9

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19	Granular flow and dielectrophoresis: The effect of electrostatic forces on adhesion and flow of dielectric granular materials. Powder Technology, 2010, 199, 180-188.	4.2	27
20	A 2D mechanistic model of breast ductal carcinoma in situ (DCIS) morphology and progression. Journal of Theoretical Biology, 2010, 263, 393-406.	1.7	47
21	Î±5Î²1 Integrin-Fibronectin Interactions Specify Liquid to Solid Phase Transition of 3D Cellular Aggregates. PLoS ONE, 2010, 5, e11830.	2.5	27
22	Electrostatic charging during the flow of grains from a cylinder. Powder Technology, 2009, 195, 158-165.	4.2	14
23	Use of a static eliminator to improve powder flow. International Journal of Pharmaceutics, 2009, 369, 2-4.	5.2	29
24	An observed correlation between flow and electrical properties of pharmaceutical blends. Powder Technology, 2009, 192, 157-165.	4.2	39
25	Cellular Morphogenesis In Silico. Biophysical Journal, 2009, 97, 958-967.	0.5	12
26	Why Decussate? Topological Constraints on 3D Wiring. Anatomical Record, 2008, 291, 1278-1292.	1.4	9
27	Static in motion. Nature, 2008, 451, 773-774.	27.8	41
28	In silico zebrafish pattern formation. Developmental Biology, 2008, 315, 397-403.	2.0	22
29	Cellular automata model of gravity-driven granular flows. Granular Matter, 2007, 9, 219-229.	2.2	15
30	Triboelectrification and Razorbacks: Geophysical Patterns Produced in Dry Grains. Physical Review Letters, 2006, 96, 178002.	7.8	42
31	Granular flow transitions on sinusoidal surfaces. Journal of Fluid Mechanics, 2006, 556, 253.	3.4	6
32	Simulated morphogenesis of developmental folds due to proliferative pressure. Journal of Theoretical Biology, 2006, 242, 764-773.	1.7	6
33	Deterministic and Stochastic Elements of Axonal Guidance. Annual Review of Biomedical Engineering, 2005, 7, 187-221.	12.3	61
34	Periodic Knolls and Valleys: Coexistence of Solid and Liquid States in Granular Suspensions. Physical Review Letters, 2004, 92, 224502.	7.8	22
35	Dry granular flows can generate surface features resembling those seen in Martian gullies. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 8542-8546.	7.1	109
36	A Taylor vortex analogy in granular flows. Nature, 2004, 431, 433-437.	27.8	69

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37	V-blender segregation patterns for free-flowing materials: effects of blender capacity and fill level. International Journal of Pharmaceutics, 2004, 269, 19-28.	5.2	37
38	Segregation in granular materials and the direct measurement of surface forces using atomic force microscopy. Powder Technology, 2004, 145, 69-72.	4.2	16
39	Scaling surface velocities in rotating cylinders as a function of vessel radius, rotation rate, and particle size. Powder Technology, 2002, 126, 174-190.	4.2	77
40	Shear instabilities in granular flows. Nature, 2002, 415, 302-305.	27.8	56
41	Noise to order. Nature, 2001, 410, 251-258.	27.8	144
42	Computational approaches to granular segregation in tumbling blenders. Powder Technology, 2001, 116, 224-231.	4.2	14
43	Granular segregation in the double-cone blender: Transitions and mechanisms. Physics of Fluids, 2001, 13, 578-587.	4.0	43
44	Experimentally validated computations of flow, mixing and segregation of non-cohesive grains in 3D tumbling blenders. Powder Technology, 2000, 109, 58-71.	4.2	174
45	Nonequilibrium Patterns in Granular Mixing and Segregation. Physics Today, 2000, 53, 25-30.	0.3	106
46	Spontaneous chaotic granular mixing. Nature, 1999, 397, 675-678.	27.8	87
47	Exploitation of junior scientists must end. Nature, 1999, 399, 521-521.	27.8	3
48	Using Variability to Regulate Long Term Biological Rhythms. Journal of Theoretical Biology, 1999, 196, 455-471.	1.7	7
49	Chaotic granular mixing. Chaos, 1999, 9, 611-620.	2.5	31
50	Granular coarsening. Granular Matter, 1998, 1, 145-148.	2.2	9
51	A model of mixing and transport in wavy Taylor-Couette flow. Physica D: Nonlinear Phenomena, 1998, 121, 163-174.	2.8	28
52	Reverse Buoyancy in Shaken Granular Beds. Physical Review Letters, 1998, 81, 4365-4368.	7.8	212
53	Transverse flow and mixing of granular materials in a rotating cylinder. Physics of Fluids, 1997, 9, 31-43.	4.0	212
54	Role of voids in granular convection. Physical Review E, 1997, 55, 6121-6133.	2.1	11

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55	A Simple Model for Granular Convection. Physical Review Letters, 1997, 79, 829-832.	7.8	23
56	Isolated mixing regions: origin, robustness and control. Chemical Engineering Science, 1997, 52, 1623-1636.	3.8	58
57	Competition between randomizing impacts and inelastic collisions in granular pattern formation. Nature, 1997, 389, 574-576.	27.8	77
58	Control of transport in a chaotic lattice. Physica D: Nonlinear Phenomena, 1996, 93, 191-209.	2.8	8
59	Mixing of granular materials in slowly rotated containers. AICHE Journal, 1996, 42, 3351-3363.	3.6	102
60	Avalanche mixing of granular solids. Nature, 1995, 374, 39-41.	27.8	212
61	MAPS, PDE'S AND SOLITARY WAVES. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 1995, 05, 955-970.	1.7	1
62	Progress in the control of chaos. Advances in Physics, 1995, 44, 73-111.	14.4	90
63	Synchronization of coupled maps and stable windows. Physical Review E, 1994, 50, 3230-3233.	2.1	20
64	Using small perturbations to control chaos. Nature, 1993, 363, 411-417.	27.8	806
65	Geometric method to create coherent structures in chaotic flows. Physical Review Letters, 1993, 71, 843-846.	7.8	22
66	Using chaos to direct orbits to targets in systems describable by a one-dimensional map. Physical Review A, 1992, 45, 4165-4168.	2.5	81
67	Chaos in a double pendulum. American Journal of Physics, 1992, 60, 491-499.	0.7	154
68	Using the sensitive dependence of chaos (the â€˜â€˜butterfly effectâ€™â€™) to direct trajectories in an experimental chaotic system. Physical Review Letters, 1992, 68, 2863-2866.	7.8	136
69	Using chaos to target stationary states of flows. Physics Letters, Section A: General, Atomic and Solid State Physics, 1992, 169, 349-354.	2.1	56
70	Using chaos to direct trajectories to targets. Physical Review Letters, 1990, 65, 3215-3218.	7.8	353
71	A chaotic attractor in timing noise from the VELA pulsar?. Astrophysical Journal, 1990, 353, 588.	4.5	19
72	A look at charging mechanics. Journal of Electrostatics, 1985, 17, 113-123.	1.9	11

#	Article	IF	Citations
73	Solids Mixing. , 0, , 887-985.		6