Ernesto Altshuler

List of Publications by Year
in descending order

94	1,646	304368	315357
papers	citations	22 h-index	38 g-index

98	98	98	1304
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Colloquium: Experiments in vortex avalanches. Reviews of Modern Physics, 2004, 76, 471-487.	16.4	207
2	Symmetry Breaking in Escaping Ants. American Naturalist, 2005, 166, 643-649.	1.0	150
3	Origin of dendritic flux patterns in MgB2 films. Physica C: Superconductivity and Its Applications, 2002, 369, 93-96.	0.6	70
4	Avalanche Prediction in a Self-Organized Pile of Beads. Physical Review Letters, 2009, 102, 078701.	2.9	69
5	Infinite Penetration of a Projectile into a Granular Medium. Physical Review Letters, 2011, 106, 218001.	2.9	61
6	Living on the edge: transfer and traffic of E. coli in a confined flow. Soft Matter, 2015, 11, 6284-6293.	1.2	59
7	Flux trapping in transport measurements of YBa2Cu3O7-x superconductors. Physica C: Superconductivity and Its Applications, 1991, 177, 61-66.	0.6	54
8	Vortex avalanches with robust statistics observed in superconducting niobium. Physical Review B, 2004, 70, .	1.1	50
9	Time evolution of a natural clinoptilolite in aqueous medium: conductivity and pH experiments. Microporous and Mesoporous Materials, 2000, 40, 173-179.	2.2	47
10	Flow-controlled densification and anomalous dispersion of E. coli through a constriction. Soft Matter, 2013, 9, 1864-1870.	1.2	47
11	Generation of Jc(He) hysteresis curves for granular YBa2Cu3O7-Î´ superconductors. Cryogenics, 1993, 33, 308-313.	0.9	39
12	Characterization and neutralizing properties of a natural zeolite/Na2CO3 composite material. Microporous and Mesoporous Materials, 1998, 24, 51-58.	2.2	37
13	Settling into dry granular media in different gravities. Geophysical Research Letters, 2014, 41, 3032-3037.	1.5	37
14	Quasiperiodic Events in an Earthquake Model. Physical Review Letters, 2006, 96, 098501.	2.9	36
15	Smectite as ciprofloxacin delivery system: Intercalation and temperature-controlled release properties. Applied Clay Science, 2016, 124-125, 150-156.	2.6	36
16	Avalanches in One-Dimensional Piles with Different Types of Bases. Physical Review Letters, 2001, 86, 5490-5493.	2.9	35
17	Entangled active matter: From cells to ants. European Physical Journal: Special Topics, 2016, 225, 629-649.	1.2	35
18	Vibrot, a Simple Device for the Conversion of Vibration into Rotation Mediated by Friction: Preliminary Evaluation. PLoS ONE, 2013, 8, e67838.	1.1	35

#	Article	IF	Citations
19	E. coli â€œsuper-contaminatesâ€•narrow ducts fostered by broad run-time distribution. Science Advances, 2020, 6, eaay0155.	4.7	29
20	Hysteresis in the Jc(Ba) dependence of (Bi-Pb)-Sr-Ca-Cu-O polycrystalline superconductors. Physica C: Superconductivity and Its Applications, 1994, 226, 12-16.	0.6	26
21	Simple model for plastic dynamics of a disordered flux-line lattice. Physical Review B, 2001, 64, .	1.1	22
22	Sandpile Formation by Revolving Rivers. Physical Review Letters, 2003, 91, 014501.	2.9	22
23	Hysteresis of the critical current density in YBCO, HBCCO and BSCCO superconducting polycrystals: a comparative study. Physica C: Superconductivity and Its Applications, 2000, 331, 57-66.	0.6	21
24	The resistive transition of (Hg0.85Re0.15)(Ba1â^'ySry)2Ca2Cu3O8+Î´ superconducting polycrystals. Physica C: Superconductivity and Its Applications, 2003, 383, 365-373.	0.6	21
25	Hysteresis and relaxation in TlBa2Ca2Cu3Oysuperconducting polycrystals. Superconductor Science and Technology, 2003, 16, 857-864.	1.8	21
26	Theory of Shubnikovâ€“de Haas oscillations around the Î½=1/2 filling factor of the Landau level: Effect of gauge-field fluctuations. Physical Review B, 1995, 52, 4708-4711.	1.1	20
27	Relaxation of the transport critical current in high-Tcpolycrystals. Physical Review B, 1999, 60, 3673-3679.	1.1	19
28	Foraging at the Edge of Chaos: Internal Clock versus External Forcing. Physical Review Letters, 2013, 110, 268104.	2.9	18
29	A simple way for targeted delivery of an antibiotic: In vitro evaluation of a nanoclay-based composite. PLoS ONE, 2017, 12, e0187879.	1.1	15
30	Magnetic hysteresis of the zero-resistance critical temperature in YBaCuO, BiSrCaCuO and HgBaCaCuO superconducting polycrystals. Physica C: Superconductivity and Its Applications, 1999, 314, 73-80.	0.6	14
31	On the negative values of the geometric factors in the intragranular flux-trapping model and the hysteresis in the Jc(Ba) dependence of polycrystalline superconductors. Physica C: Superconductivity and Its Applications, 1995, 246, 55-60.	0.6	13
32	Uphill solitary waves in granular flows. Physical Review E, 2007, 75, 031303.	0.8	13
33	Note: â€œLock-in accelerometryâ€•to follow sink dynamics in shaken granular matter. Review of Scientific Instruments, 2014, 85, 126101.	0.6	13
34	Classification and dynamics of tropical clouds by their fractal dimension. Quarterly Journal of the Royal Meteorological Society, 2016, 142, 983-988.	1.0	13
35	Incorporation of tramadol drug into Li-fluorohectorite clay: A preliminary study of a medical nanofluid. European Physical Journal: Special Topics, 2016, 225, 767-771.	1.2	13
36	Transport relaxation and intragranular flux creep in polycrystalline YBa2Cu3O7â^'x. Physica C: Superconductivity and Its Applications, 1992, 200, 195-200.	0.6	12

#	Article	IF	Citations
37	High Resolution Thermal Imaging of Hotspots in Superconducting Films. IEEE Transactions on Applied Superconductivity, 2007, 17, 3215-3218.	1.1	12
38	MÃ¶ssbauer Study of the Reaction Kinetics of Hexagonal M-Phase Ferrites. Physica Status Solidi A, 1985, 89, 427-436.	1.7	11
39	Rolling away from the Wall into Granular Matter. Physical Review Letters, 2020, 125, 078002.	2.9	11
40	Revolving rivers in sandpiles: From continuous to intermittent flows. Physical Review E, 2008, 77, 031305.	0.8	10
41	AC susceptibility study of the intergranular irreversibility line in BSCCO ceramic superconductors. Physica C: Superconductivity and Its Applications, 1995, 255, 76-80.	0.6	9
42	Jc vs B curves and the Josephson junction assembly model for Y-Ba-Cu-O superconductors. Solid State Communications, 1990, 76, 799-801.	0.9	8
43	Choice of sample size for high transport critical current density in a granular superconductor: percolation versus self-field effects. Superconductor Science and Technology, 1997, 10, 758-762.	1.8	8
44	Temperature dependence of some intragranular parameters in BSCCO polycrystalline superconductors obtained through the magnetic hysteresis of Jc. Physica C: Superconductivity and Its Applications, 1997, 292, 48-52.	0.6	8
45	Universality of vortex avalanches in a type II superconductor with periodic pinning. Physica A: Statistical Mechanics and Its Applications, 2000, 275, 15-21.	1.2	7
46	Magnetic irreversibility in (Hg1â^'xRex)Ba2Ca2Cu3O8+Î´: effects of neutron irradiation. Physica C: Superconductivity and Its Applications, 2002, 371, 224-228.	0.6	7
47	Upstream contamination by floating particles. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2013, 469, 20130067.	1.0	7
48	Exponential velocity profile of granular flows down a confined heap. Physical Review E, 2016, 93, 062906.	0.8	7
49	Josephson junctions in a magnetic field: Insights from coupled pendula. American Journal of Physics, 2003, 71, 405-408.	0.3	6
50	Intruders cooperatively interact with a wall into granular matter. Granular Matter, 2022, 24, 1.	1.1	6
51	Penetration of circular vortices into a superconducting hollow cylinder. Journal of Superconductivity and Novel Magnetism, 1995, 8, 779-780.	0.5	5
52	Hysteresis in theI c (H) characteristics of high-temperature superconducting ceramics and thin films. Journal of Superconductivity and Novel Magnetism, 1995, 8, 781-782.	0.5	5
53	Thermally activated avalanches in type-II superconductors. Physical Review B, 2001, 63, .	1.1	5
54	Measuring activity in ant colonies. Review of Scientific Instruments, 2006, 77, 126102.	0.6	5

#	Article	IF	Citations
55	Modeling transport properties of inhomogeneous superconductor-metal composites. Applied Physics Letters, 2014, 105, 202604.	1.5	5
56	Uninformed sacrifice: Evidence against long-range alarm transmission in foraging ants exposed to localized abduction. European Physical Journal: Special Topics, 2016, 225, 663-668.	1.2	5
57	Flux Creep Simulations in Hard Superconductors for Different Critical State Models. Physica Status Solidi (B): Basic Research, 1994, 182, K31.	0.7	4
58	Magnetic hysteresis of the zero-resistance critical temperature in YBa2Cu3O7 âˆ’ x ceramic superconductors. Physica C: Superconductivity and Its Applications, 1994, 234, 368-372.	0.6	4
59	Relaxation of the transport critical current in deoxygenated YBa2Cu3O7âˆ’Î´. Physica C: Superconductivity and Its Applications, 2002, 366, 117-122.	0.6	4
60	Laser patterning: A new approach to measure local magneto-transport properties in multifilamentary superconducting tapes. Journal of Magnetism and Magnetic Materials, 2007, 316, e930-e933.	1.0	4
61	Local transport in multi-filamentary superconductors: longitudinal versus transverse dissipation. Superconductor Science and Technology, 2013, 26, 115004.	1.8	4
62	Possible interpretation on the existence of an anomalous inversion of some ZFC and FC transport characteristics in YBCO and BSCCO ceramic superconductors. Physica C: Superconductivity and Its Applications, 1996, 272, 13-20.	0.6	3
63	Two-stage dissipation in a superconducting microbridge: experiment and modeling. Superconductor Science and Technology, 2010, 23, 085005.	1.8	3
64	Does the pelletization pressure modify the effective anisotropy of the grains in (Bi,Pb)2223 bulk system?. Journal of Materials Science: Materials in Electronics, 2017, 28, 13058-13069.	1.1	3
65	Note: Planetary gravities made simple: Sample test of a Mars rover wheel. Review of Scientific Instruments, 2017, 88, 086107.	0.6	3
66	Microstructural and electrical transport properties of uniaxially pressed $$ext {Bi}_{1.65}ext {Pb}_{0.35}ext {Sr}_2ext {Ca}_{2.5}ext {Cu}_{3.5}ext {O}_{10+delta }$$ Bi 1.65 Pb. Journal of Materials Science: Materials in Electronics, 2018, 29, 6188-6199.	1.1	3
67	In-plane anisotropy in BSCCO superconducting tapes: Transport and magnetometric criteria. Cryogenics, 2020, 109, 103102.	0.9	3
68	Anomalies in the Jc versus B curves for oxalate route Yî—¸Baî—¸Cuî—¸O superconductors. Physica C: Superconductivity and Its Applications, 1990, 172, 361-364.	0.6	2
69	The J_c versus T Dependence in YBaCuO Superconductors and the Ambegaokarâ€"Baratoff Relationship. Physica Status Solidi (B): Basic Research, 1991, 168, K15.	0.7	2
70	Bean-livingston barriers in ideal type-II superconductors hollow cylinders. Physica C: Superconductivity and Its Applications, 1995, 252, 295-302.	0.6	2
71	Avalanche behavior in one-dimensional superconductors with a periodic distribution of pinning centers: a Monte Carlo approach. Physica C: Superconductivity and Its Applications, 1997, 281, 317-320.	0.6	2
72	Transport properties of YBCO, HBCCO, TBCCO and BSCCO superconducting polycrystals. Physica C: Superconductivity and Its Applications, 2004, 408-410, 585-586.	0.6	2

#	Article	IF	Citations
73	Experiments in superconducting vortex avalanches. Physica C: Superconductivity and Its Applications, 2004, 408-410, 501-504.	0.6	2
74	In-plane transport anisotropy in BSCCO-Ag multi-filamentary tapes. Superconductor Science and Technology, 2015, 28, 075008.	1.8	2
75	Electrical effective parameters of the grains and the Montgomery's method in $$hbox {Bi}_{1.65}hbox {Pb}_{0.35}hbox {Sr}_2hbox {Ca}_{2.5}hbox {Cu}_{3.5}hbox {O}_y$$ Bi 1.65 Pb. Journal of Materials Science: Materials in Electronics, 2018, 29, 14322-14327.	1.1	2
76	An autonomous robot for continuous tracking of millimetric-sized walkers. Review of Scientific Instruments, 2019, 90, 014102.	0.6	2
77	The azimuthal critical state of a superconducting hollow cylinder. Physica C: Superconductivity and Its Applications, 1997, 292, 39-47.	0.6	1
78	Magnetic hysteresis of Re-doped HBCCO polycrystals. Physica C: Superconductivity and Its Applications, 2000, 341-348, 1481-1482.	0.6	1
79	Superconductivity in Cuba: Reaching the Frontline. Boston Studies in the Philosophy and History of Science, 2014, , 301-306.	0.4	1
80	Contemporary Cuban Physics Through Scientific Publications: An Insiderâ€™s View. Boston Studies in the Philosophy and History of Science, 2014, , 439-446.	0.4	1
81	Lack of collective motion in granular gases of rotators. New Journal of Physics, 2022, 24, 073002.	1.2	1
82	Magnetic hysteresis of the zero-resistance critical temperature of high-T c granular superconductors. Journal of Superconductivity and Novel Magnetism, 1995, 8, 603-604.	0.5	0
83	MAGNETIC IRREVERSIBILITY OF THE ZERO-RESISTANCE CRITICAL TEMPERATURE IN YBCO, BSCCO AND HBCCO POLYCRYSTALS. , 2000, , .		0
84	MAGNETIC IRREVERSIBILITY OF THE TRANSPORT CRITICAL CURRENT DENSITY IN YBCO, HBCCO AND BSCCO POLYCRYSTALS. , 2000, , .		0
85	Guerrilla Science. , 2017, , .		0
86	Smarter Than Bibijaguas. , 2017, , 109-144.		0
87	The Chinese Connection. , 2017, , 5-22.		0
88	Strange Phenomena in Cuban Sands. , 2017, , 23-43.		0
89	Lab-in-a-Bucket: Low Budget Experiments in the Solar System. , 2017, , 45-66.		0
90	Garbage Experiments. , 2017, , 67-83.		0

#	Article	IF	Citations
91	Should We Be a Little Afraid to Urinate?. , 2017, , 97-107.		0
92	Temperature dependence of the in-plane and grains resistivities in Bi-2223 polycrystalline superconductors. Journal of Materials Science: Materials in Electronics, 2019, 30, 14320-14324.	1.1	0
93	Design of a magnetically driven current cloak. Journal Physics D: Applied Physics, 2021, 54, 325301.	1.3	0
94	Sink versus tilt penetration into shaken dry granular matter: The role of the foundation. Physical Review E, 2022, 105, 024903.	0.8	0