Michael F Shlesinger

List of Publications by Year
in descending order

69 papers	5,212 citations	201674 27 h-index	123424 61 g-index
72 all docs	72 docs citations	72 times ranked	2776 citing authors

#	Article	IF	Citations
1	Strange kinetics. Nature, 1993, 363, 31-37.	27.8	1,024
2	Beyond Brownian Motion. Physics Today, 1996, 49, 33-39.	0.3	643
3	Time-Scale Invariance in Transport and Relaxation. Physics Today, 1991, 44, 26-34.	0.3	516
4	Asymptotic solutions of continuous-time random walks. Journal of Statistical Physics, 1974, 10, 421-434.	1.2	400
5	Random walks with infinite spatial and temporal moments. Journal of Statistical Physics, 1982, 27, 499-512.	1.2	308
6	Maximum entropy formalism, fractals, scaling phenomena, and 1/f noise: A tale of tails. Journal of Statistical Physics, 1983, 32, 209-230.	1.2	302
7	Search research. Nature, 2006, 443, 281-282.	27.8	187
8	ON THE UBIQUITY OF 1/f NOISE. International Journal of Modern Physics B, 1989, 03, 795-819.	2.0	145
9	Williams-watts dielectric relaxation: A fractal time stochastic process. Journal of Statistical Physics, 1984, 36, 639-648.	1.2	131
10	LÃ©vy Walks Versus LÃ©vy Flights. , 1986, , 279-283.		112
11	Fractal Time and 1/f Noise in Complex Systems. Annals of the New York Academy of Sciences, 1987, 504, 214-228.	3.8	112
12	Analogs of renormalization group transformations in random processes. Physica A: Statistical Mechanics and Its Applications, 1981, 109, 597-608.	2.6	108
13	Derivation of the Kohlrausch-Williams/Watts decay law from activation-energy dispersion. Macromolecules, 1985, 18, 591-592.	4.8	101
14	Generalized Vogel law for glass-forming liquids. Journal of Statistical Physics, 1988, 53, 531-541.	1.2	96
15	Fractional motions. Physics Reports, 2013, 527, 101-129.	25.6	87
16	A New Vogel-Like Law: Ionic Conductivity, Dielectric Relaxation, and Viscosity near the Glass Transition. Physical Review Letters, 2001, 87, 195503.	7.8	82
17	Defect-diffusion models of relaxation. Journal of Molecular Liquids, 1987, 36, 37-46.	4.9	66
18	Electron scavenging in glasses. Journal of Chemical Physics, 1979, 70, 4813-4818.	3.0	53

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19	Stochastic theory of multistate diffusion in perfect and defective systems. I. Mathematical formalism. Physical Review B, 1979, 19, 6207-6219.	3.2	48
20	Wavelet transformation of protein hydrophobicity sequences suggests their memberships in structural families. Physica A: Statistical Mechanics and Its Applications, 1997, 244, 254-262.	2.6	46
21	Random searching. Journal of Physics A: Mathematical and Theoretical, 2009, 42, 434001.	2.1	39
22	Levy flights: Variations on a theme. Physica D: Nonlinear Phenomena, 1989, 38, 304-309.	2.8	36
23	Stochastic theory of multistate diffusion in perfect and defective systems. II. Case studies. Physical Review B, 1979, 19, 6220-6237.	3.2	35
24	Cluster motion on surfaces: A stochastic model. Physical Review B, 1977, 16, 3389-3405.	3.2	32
25	Mode matches in hydrophobic free energy eigenfunctions predict peptideâ€“protein interactions. Biopolymers, 1998, 46, 89-101.	2.4	32
26	CAB: Citation-Assisted Background. Scientometrics, 2005, 62, 199-212.	3.0	32
27	New paths for random walkers. Nature, 1992, 355, 396-397.	27.8	28
28	Physics in the noise. Nature, 2001, 411, 641-641.	27.8	28
29	FRACTALS TEXT MINING USING BIBLIOMETRICS AND DATABASE TOMOGRAPHY. Fractals, 2004, 12, 1-16.	3.7	27
30	Motion of Clusters on Surfaces. Physical Review Letters, 1977, 38, 285-289.	7.8	25
31	Origins and applications of the Montroll-Weiss continuous time random walk. European Physical Journal B, 2017, 90, 1.	1.5	24
32	Lattice dynamics, random walks, and nonintegral effective dimensionality. Journal of Mathematical Physics, 1982, 23, 1688-1692.	1.1	22
33	Polymer melt dynamics model with a relaxation time exponent of 10/3. Macromolecules, 1988, 21, 521-523.	4.8	22
34	Correlation effects on frequency dependent conductivity: Application to superionic conductors. Solid State Communications, 1979, 32, 1207-1210.	1.9	21
35	On reptation in polymer melts. Journal of Chemical Physics, 1986, 84, 5922-5924.	3.0	21
36	Weierstrassian Levy flights and selfâ€avoiding random walks. Journal of Chemical Physics, 1983, 78, 416-419.	3.0	20

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37	Hydrophobic Free Energy Eigenfunctions of Pore, Channel, and Transporter Proteins Contain Î²-Burst Patterns. Biophysical Journal, 1998, 75, 2332-2342.	0.5	18
38	NONLINEAR DYNAMICS TEXT MINING USING BIBLIOMETRICS AND DATABASE TOMOGRAPHY. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2004, 14, 61-92.	1.7	15
39	On the Riemann hypothesis: A fractal random walk approach. Physica A: Statistical Mechanics and Its Applications, 1986, 138, 310-319.	2.6	13
40	Anomalous defect diffusion near the glass transition. Chemical Physics, 2002, 284, 311-317.	1.9	13
41	Duplicate publication and â€˜paper inflationâ€™ in the fractals literature. Science and Engineering Ethics, 2006, 12, 543-554.	2.9	13
42	Diffusion processes in defective crystals and multistate diffusion. Solid State Communications, 1978, 27, 939-942.	1.9	12
43	Fractal time symmetry in the glass transition. Nuclear Physics, Section B, Proceedings Supplements, 1988, 5, 82-85.	0.4	11
44	Cellular and Behavioral Effects of D2 Dopamine Receptor Hydrophobic Eigenmode-Targeted Peptide Ligands. Neuropsychopharmacology, 2003, 28, S98-S107.	5.4	8
45	Designing Human m1 Muscarinic Receptor-Targeted Hydrophobic Eigenmode Matched Peptides as Functional Modulators. Biophysical Journal, 2004, 86, 1308-1331.	0.5	8
46	Follow the money. Nature Physics, 2006, 2, 69-70.	16.7	8
47	Fractal stochastic processes: Clusters and intermittancies. Lecture Notes in Mathematics, 1983, , 138-152.	0.2	8
48	On the expected number of distinct points in a subset visited by anN-step random walk. Journal of Statistical Physics, 1982, 27, 355-363.	1.2	7
49	Predicting Peptideâ^'Receptor, Peptideâ^'Protein, and Chaperoneâ^'Protein Binding Using Patterns in Amino Acid Hydrophobic Free Energy Sequencesâ€. Journal of Physical Chemistry B, 2000, 104, 3953-3959.	2.6	7
50	Stochastic Theory of Bimolecular, Heterogeneous, Surface Catalytic Reactions. Physical Review Letters, 1978, 41, 1174-1178.	7.8	6
51	Langevin unification of fractional motions. Journal of Physics A: Mathematical and Theoretical, 2012, 45, 162002.	2.1	6
52	On the wedding of certain dynamical processes in disordered complex materials to the theory of stable (LÃ©vy) distribution functions. Lecture Notes in Mathematics, 1983, , 109-137.	0.2	5
53	Protein binding predictions from amino acid primary sequence hydrophobicity. Journal of Molecular Liquids, 2000, 86, 163-171.	4.9	5
54	Random walk of dislocations following a high-velocity impact. Journal of Statistical Physics, 1983, 30, 527-535.	1.2	4

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55	Comment on â€˜â€˜Analysis of the dispersive diffusion of atoms in disordered solidsâ€™â€™. Physical Review Letters, 1992, 68, 414-414.	7.8	4
56	Anomalous diffusion producing normal relaxation and transport. Journal of Physics Condensed Matter, 2007, 19, 065121.	1.8	4
57	WHY CONDUCTIVITY DECREASES WITH PRESSURE IN ION-DOPED POLYMERS. Fractals, 2003, 11, 93-97.	3.7	3
58	SOLUTIONS OF PHYSICAL STOCHASTIC PROCESSES VIA MAPPINGS ONTO IDEAL AND DEFECTIVE RANDOM WALK LATTICES**Work supported by U. S. DOE Contract No. EG-77-S-05-5489.. , 1980, , 151-246.		3
59	Sources of exponents. Physica D: Nonlinear Phenomena, 2004, 193, 67-72.	2.8	2
60	Random Walks and Gamma Functions. , 1977, , 507-519.		2
61	Hopping controlled time dependent reaction rates for the scavenging of electrons in glasses. Journal of Non-Crystalline Solids, 1980, 40, 19-29.	3.1	1
62	Stretched Times and Divergent Time Scales. , 1995, , 189-196.		1
63	Random Processes with Infinite Moments. , 0, , 75-91.		1
64	Switching strategies to optimize search. Journal of Statistical Mechanics: Theory and Experiment, 2016, 2016, 033402.	2.3	1
65	The Stretched Exponential, The Vogel Law, and All That. NATO ASI Series Series B: Physics, 1989, , 347-352.	0.2	1
66	The Arrhenius Law versus the Vogel Law. , 1990, , 161-166.		1
67	Barrier Distributions and Defect Migration in Glasses. Annals of the New York Academy of Sciences, 1986, 484, 300-301.	3.8	0
68	Noise cascades and LÃ©vy correlations. Journal of Physics A: Mathematical and Theoretical, 2013, 46, 392001.	2.1	0
69	Diffusion in a turbulent phase space. Lecture Notes in Physics, 1987, , 69-71.	0.7	0