List of Publications by Year in descending order

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#	Article	IF	CITATIONS
1	Breakdown properties of quenched random systems: The random-fuse network. Physical Review B, 1987, 36, 367-380.	3.2	272
2	Size Effects of Electrical Breakdown in Quenched random Media. Physical Review Letters, 1986, 57, 1052-1055.	7.8	248
3	Ab initio determination of solid-state nanostructure. Nature, 2006, 440, 655-658.	27.8	169
4	Theory of dielectric breakdown in metal-loaded dielectrics. Physical Review B, 1988, 37, 2785-2791.	3.2	110
5	Stressed Backbone and Elasticity of Random Central-Force Systems. Physical Review Letters, 1995, 75, 4055-4058.	7.8	108
6	Islandâ€ŧoâ€percolation transition during growth of metal films. Journal of Applied Physics, 1994, 75, 5016-5020.	2.5	94
7	Coalescence and percolation in thin metal films. Physical Review B, 1991, 44, 13163-13166.	3.2	84
8	The failure distribution in percolation models of breakdown. Journal of Physics A, 1987, 20, L411-L415.	1.6	77
9	Minimum Spanning Trees on Random Networks. Physical Review Letters, 2001, 86, 5076-5079.	7.8	67
10	Floppy modes and the free energy: Rigidity and connectivity percolation on Bethe lattices. Physical Review E, 1999, 59, 2084-2092.	2.1	61
11	Comparison of rigidity and connectivity percolation in two dimensions. Physical Review E, 1999, 59, 2614-2622.	2.1	59
12	Fracture of heterogeneous materials with continuous distributions of local breaking strengths. Physical Review B, 1994, 49, 14905-14917.	3.2	57
13	Exactly solvable models of material breakdown. Physical Review B, 1994, 49, 12676-12687.	3.2	54
14	Quasistatic Cracks and Minimal Energy Surfaces. Physical Review Letters, 1998, 80, 329-332.	7.8	50
15	Space charge effects in ultrafast electron diffraction and imaging. Journal of Applied Physics, 2012, 111, .	2.5	50
16	Size and location of the largest current in a random resistor network. Physical Review B, 1987, 36, 5411-5419.	3.2	45
17	First-order rigidity on Cayley trees. Physical Review E, 1997, 55, 5800-5811.	2.1	44
18	Infinite-Cluster Geometry in Central-Force Networks. Physical Review Letters, 1997, 78, 1480-1483.	7.8	43

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19	Failure probability and average strength of disordered systems. Physical Review Letters, 1994, 72, 2805-2808.	7.8	42
20	Breakdown of two-phase random resistor networks. Physical Review B, 1995, 51, 3476-3488.	3.2	33
21	Equilibration of crystal surfaces. Physical Review B, 1995, 52, 17468-17479.	3.2	33
22	From moduli scaling to breakdown scaling: A moment-spectrum analysis. Physical Review B, 1989, 40, 4889-4897.	3.2	28
23	Ground state structure of random magnets. Physical Review E, 1998, 58, 4261-4265.	2.1	27
24	Failure of threeâ€dimensional random composites. Journal of Applied Physics, 1994, 76, 4086-4094.	2.5	26
25	Crystal structure solution from experimentally determined atomic pair distribution functions. Journal of Applied Crystallography, 2010, 43, 623-629.	4.5	25
26	Crack arrest by residual bonding in resistor and spring networks. Physical Review B, 1988, 38, 9257-9260.	3.2	22
27	Statistical physics of grain-boundary engineering. Physical Review E, 2005, 71, 026102.	2.1	22
28	Disorder-induced roughening in the three-dimensional Ising model. Physical Review B, 1996, 54, 14990-14993.	3.2	21
29	Active control of bright electron beams with RF optics for femtosecond microscopy. Structural Dynamics, 2017, 4, 044035.	2.3	21
30	Atomic diffusion, step relaxation, and step fluctuations. Physical Review E, 1999, 60, 1279-1291.	2.1	20
31	Computational and experimental characterization of high-brightness beams for femtosecond electron imaging and spectroscopy. Applied Physics Letters, 2013, 103, .	3.3	18
32	The Liga algorithm for <i>ab initio</i> determination of nanostructure. Acta Crystallographica Section A: Foundations and Advances, 2008, 64, 631-640.	0.3	17
33	Surface profile evolution above roughening. European Physical Journal B, 1994, 94, 311-318.	1.5	14
34	Capacitance and dielectric breakdown of metal loaded dielectrics. Journal Physics D: Applied Physics, 1990, 23, 1546-1553.	2.8	13
35	Dynamics ofk-core percolation. Journal of Physics A: Mathematical and Theoretical, 2007, 40, F581-F587.	2.1	13
36	Algorithm for systematic peak extraction from atomic pair distribution functions. Acta Crystallographica Section A: Foundations and Advances, 2015, 71, 392-409.	0.1	13

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37	Ground state nonuniversality in the random-field Ising model. Physical Review E, 2001, 64, 036112.	2.1	12
38	Intermittence and roughening of periodic elastic media. Physical Review E, 2001, 63, 036126.	2.1	12
39	High-performance inverted solar cells with a controlled ZnO buffer layer. RSC Advances, 2014, 4, 3604-3610.	3.6	12
40	Untangling the contributions of image charge and laser profile for optimal photoemission of high-brightness electron beams. Journal of Applied Physics, 2014, 116, 174302.	2.5	11
41	Extremal statistics in the energetics of domain walls. Physical Review E, 2001, 63, 066110.	2.1	10
42	Random manifolds in non-linear resistor networks: applications to varistors and superconductors. Journal of Physics A, 2002, 35, L327-L333.	1.6	10
43	Cracks and critical current. Journal of Applied Physics, 1991, 70, 3164-3170.	2.5	9
44	Active clusters in disordered systems. Physical Review E, 1999, 60, 4941-4945.	2.1	9
45	Scaling laws for critical manifolds in polycrystalline materials. Physical Review E, 2003, 68, 066107.	2.1	9
46	Culling avalanches in bootstrap percolation. Physical Review E, 2005, 72, 066109.	2.1	9
47	Substrate Inhomogeneity and the Growth Morphology of Thin Films. Europhysics Letters, 1994, 26, 601-606.	2.0	7
48	Ab-initioreconstruction of complex Euclidean networks in two dimensions. Physical Review E, 2014, 89, 053311.	2.1	6
49	Scaling Theory of Elasticity and Fracture in Disordered Networks. Materials Research Society Symposia Proceedings, 1990, 207, 179.	0.1	5
50	Distribution of large currents in finite-size random resistor networks. Physical Review B, 1995, 51, 6711-6714.	3.2	5
51	Domain states in the zero-temperature diluted antiferromagnet in an applied field. Physical Review B, 2005, 71, .	3.2	5
52	Size Effects of Electrical Breakdown in Quenched Random Media. Physical Review Letters, 1987, 59, 155-155.	7.8	4
53	Duxbury, Moukarzel and Leath Reply:. Physical Review Letters, 1998, 80, 5452-5452.	7.8	4
54	Periodic elastic medium in which periodicity is relevant. Physical Review E, 2000, 62, 3230-3233.	2.1	4

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55	Structure-Sensitive Properties of Materials. Solid Mechanics and Its Applications, 1997, , 257-264.	0.2	3
56	STRUCTURAL COMPLIANCE, MISFIT STRAIN AND STRIPE NANOSTRUCTURES IN CUPRATE SUPERCONDUCTORS: IMPLICATIONS AND EXPERIMENTAL OBSERVATIONS. International Journal of Modern Physics B, 2002, 16, 1697-1708.	2.0	2
57	Effects of grain boundary constraint on properties of polycrystalline materials. Modelling and Simulation in Materials Science and Engineering, 2007, 15, S353-S360.	2.0	2
58	Current-dependent resistance of dilute switching networks. Physical Review B, 1988, 37, 5629-5632.	3.2	1
59	Exact computations test stochastic Loewner evolution and scaling in glassy systems. Journal of Statistical Mechanics: Theory and Experiment, 2009, 2009, N09001.	2.3	1
60	Realizing laminar-like flow in charged bunches with density evolution equations. International Journal of Modern Physics A, 2019, 34, 1942042.	1.5	1
61	Disorder and Scaling in Regular and Hierarchical Composites. Materials Research Society Symposia Proceedings, 1991, 255, 321.	0.1	0
62	Maximum independent set on diluted triangular lattices. Physical Review E, 2006, 73, 056112.	2.1	0
63	Longitudinal crossover and the dynamics of uniform electron ellipsoids focused by a linear chirp. Physical Review E, 2021, 103, 023202.	2.1	0
64	Network Algorithms and Critical Manifolds in Disordered Systems. Springer Proceedings in Physics, 2004, , 181-194.	0.2	0