

P M Duxbury

List of Publications by Year in descending order

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64
papers

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236612

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66
all docs

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docs citations

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times ranked

1400
citing authors

#	ARTICLE	IF	CITATIONS
1	Breakdown properties of quenched random systems: The random-fuse network. Physical Review B, 1987, 36, 367-380.	1.1	272
2	Size Effects of Electrical Breakdown in Quenched random Media. Physical Review Letters, 1986, 57, 1052-1055.	2.9	248
3	Ab initio determination of solid-state nanostructure. Nature, 2006, 440, 655-658.	13.7	169
4	Theory of dielectric breakdown in metal-loaded dielectrics. Physical Review B, 1988, 37, 2785-2791.	1.1	110
5	Stressed Backbone and Elasticity of Random Central-Force Systems. Physical Review Letters, 1995, 75, 4055-4058.	2.9	108
6	Island-to-island percolation transition during growth of metal films. Journal of Applied Physics, 1994, 75, 5016-5020.	1.1	94
7	Coalescence and percolation in thin metal films. Physical Review B, 1991, 44, 13163-13166.	1.1	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.	2.9	67
10	Floppy modes and the free energy: Rigidity and connectivity percolation on Bethe lattices. Physical Review E, 1999, 59, 2084-2092.	0.8	61
11	Comparison of rigidity and connectivity percolation in two dimensions. Physical Review E, 1999, 59, 2614-2622.	0.8	59
12	Fracture of heterogeneous materials with continuous distributions of local breaking strengths. Physical Review B, 1994, 49, 14905-14917.	1.1	57
13	Exactly solvable models of material breakdown. Physical Review B, 1994, 49, 12676-12687.	1.1	54
14	Quasistatic Cracks and Minimal Energy Surfaces. Physical Review Letters, 1998, 80, 329-332.	2.9	50
15	Space charge effects in ultrafast electron diffraction and imaging. Journal of Applied Physics, 2012, 111, .	1.1	50
16	Size and location of the largest current in a random resistor network. Physical Review B, 1987, 36, 5411-5419.	1.1	45
17	First-order rigidity on Cayley trees. Physical Review E, 1997, 55, 5800-5811.	0.8	44
18	Infinite-Cluster Geometry in Central-Force Networks. Physical Review Letters, 1997, 78, 1480-1483.	2.9	43

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19	Failure probability and average strength of disordered systems. <i>Physical Review Letters</i> , 1994, 72, 2805-2808.	2.9	42
20	Breakdown of two-phase random resistor networks. <i>Physical Review B</i> , 1995, 51, 3476-3488.	1.1	33
21	Equilibration of crystal surfaces. <i>Physical Review B</i> , 1995, 52, 17468-17479.	1.1	33
22	From moduli scaling to breakdown scaling: A moment-spectrum analysis. <i>Physical Review B</i> , 1989, 40, 4889-4897.	1.1	28
23	Ground state structure of random magnets. <i>Physical Review E</i> , 1998, 58, 4261-4265.	0.8	27
24	Failure of three-dimensional random composites. <i>Journal of Applied Physics</i> , 1994, 76, 4086-4094.	1.1	26
25	Crystal structure solution from experimentally determined atomic pair distribution functions. <i>Journal of Applied Crystallography</i> , 2010, 43, 623-629.	1.9	25
26	Crack arrest by residual bonding in resistor and spring networks. <i>Physical Review B</i> , 1988, 38, 9257-9260.	1.1	22
27	Statistical physics of grain-boundary engineering. <i>Physical Review E</i> , 2005, 71, 026102.	0.8	22
28	Disorder-induced roughening in the three-dimensional Ising model. <i>Physical Review B</i> , 1996, 54, 14990-14993.	1.1	21
29	Active control of bright electron beams with RF optics for femtosecond microscopy. <i>Structural Dynamics</i> , 2017, 4, 044035.	0.9	21
30	Atomic diffusion, step relaxation, and step fluctuations. <i>Physical Review E</i> , 1999, 60, 1279-1291.	0.8	20
31	Computational and experimental characterization of high-brightness beams for femtosecond electron imaging and spectroscopy. <i>Applied Physics Letters</i> , 2013, 103, .	1.5	18
32	The Liga algorithm for <i>ab initio</i> determination of nanostructure. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2008, 64, 631-640.	0.3	17
33	Surface profile evolution above roughening. <i>European Physical Journal B</i> , 1994, 94, 311-318.	0.6	14
34	Capacitance and dielectric breakdown of metal loaded dielectrics. <i>Journal Physics D: Applied Physics</i> , 1990, 23, 1546-1553.	1.3	13
35	Dynamics of <i>k</i> -core percolation. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2007, 40, F581-F587.	0.7	13
36	Algorithm for systematic peak extraction from atomic pair distribution functions. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2015, 71, 392-409.	0.0	13

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37	Ground state nonuniversality in the random-field Ising model. <i>Physical Review E</i> , 2001, 64, 036112.	0.8	12
38	Intermittence and roughening of periodic elastic media. <i>Physical Review E</i> , 2001, 63, 036126.	0.8	12
39	High-performance inverted solar cells with a controlled ZnO buffer layer. <i>RSC Advances</i> , 2014, 4, 3604-3610.	1.7	12
40	Untangling the contributions of image charge and laser profile for optimal photoemission of high-brightness electron beams. <i>Journal of Applied Physics</i> , 2014, 116, 174302.	1.1	11
41	Extremal statistics in the energetics of domain walls. <i>Physical Review E</i> , 2001, 63, 066110.	0.8	10
42	Random manifolds in non-linear resistor networks: applications to varistors and superconductors. <i>Journal of Physics A</i> , 2002, 35, L327-L333.	1.6	10
43	Cracks and critical current. <i>Journal of Applied Physics</i> , 1991, 70, 3164-3170.	1.1	9
44	Active clusters in disordered systems. <i>Physical Review E</i> , 1999, 60, 4941-4945.	0.8	9
45	Scaling laws for critical manifolds in polycrystalline materials. <i>Physical Review E</i> , 2003, 68, 066107.	0.8	9
46	Culling avalanches in bootstrap percolation. <i>Physical Review E</i> , 2005, 72, 066109.	0.8	9
47	Substrate Inhomogeneity and the Growth Morphology of Thin Films. <i>Europhysics Letters</i> , 1994, 26, 601-606.	0.7	7
48	Ab-initioreconstruction of complex Euclidean networks in two dimensions. <i>Physical Review E</i> , 2014, 89, 053311.	0.8	6
49	Scaling Theory of Elasticity and Fracture in Disordered Networks. <i>Materials Research Society Symposia Proceedings</i> , 1990, 207, 179.	0.1	5
50	Distribution of large currents in finite-size random resistor networks. <i>Physical Review B</i> , 1995, 51, 6711-6714.	1.1	5
51	Domain states in the zero-temperature diluted antiferromagnet in an applied field. <i>Physical Review B</i> , 2005, 71, .	1.1	5
52	Size Effects of Electrical Breakdown in Quenched Random Media. <i>Physical Review Letters</i> , 1987, 59, 155-155.	2.9	4
53	Duxbury, Moukarzel and Leath Reply:. <i>Physical Review Letters</i> , 1998, 80, 5452-5452.	2.9	4
54	Periodic elastic medium in which periodicity is relevant. <i>Physical Review E</i> , 2000, 62, 3230-3233.	0.8	4

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55	Structure-Sensitive Properties of Materials. Solid Mechanics and Its Applications, 1997, , 257-264.	0.1	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.	1.0	2
57	Effects of grain boundary constraint on properties of polycrystalline materials. Modelling and Simulation in Materials Science and Engineering, 2007, 15, S353-S360.	0.8	2
58	Current-dependent resistance of dilute switching networks. Physical Review B, 1988, 37, 5629-5632.	1.1	1
59	Exact computations test stochastic Loewner evolution and scaling in glassy systems. Journal of Statistical Mechanics: Theory and Experiment, 2009, 2009, N09001.	0.9	1
60	Realizing laminar-like flow in charged bunches with density evolution equations. International Journal of Modern Physics A, 2019, 34, 1942042.	0.5	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.	0.8	0
63	Longitudinal crossover and the dynamics of uniform electron ellipsoids focused by a linear chirp. Physical Review E, 2021, 103, 023202.	0.8	0
64	Network Algorithms and Critical Manifolds in Disordered Systems. Springer Proceedings in Physics, 2004, , 181-194.	0.1	0