P M Duxbury

List of Publications by Year
in descending order

64 papers	2,253 citations	236925 25 h-index	214800 47 g-index
66 all docs	66 docs citations	66 times ranked	1400 citing authors

#	Article	IF	Citations
1	Longitudinal crossover and the dynamics of uniform electron ellipsoids focused by a linear chirp. Physical Review E, 2021, 103, 023202.	2.1	0
2	Realizing laminar-like flow in charged bunches with density evolution equations. International Journal of Modern Physics A, 2019, 34, 1942042.	1.5	1
3	Active control of bright electron beams with RF optics for femtosecond microscopy. Structural Dynamics, 2017, 4, 044035.	2.3	21
4	Algorithm for systematic peak extraction from atomic pair distribution functions. Acta Crystallographica Section A: Foundations and Advances, 2015, 71, 392-409.	0.1	13
5	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
6	Ab-initioreconstruction of complex Euclidean networks in two dimensions. Physical Review E, 2014, 89, 053311.	2.1	6
7	High-performance inverted solar cells with a controlled ZnO buffer layer. RSC Advances, 2014, 4, 3604-3610.	3.6	12
8	Computational and experimental characterization of high-brightness beams for femtosecond electron imaging and spectroscopy. Applied Physics Letters, 2013, 103, .	3.3	18
9	Space charge effects in ultrafast electron diffraction and imaging. Journal of Applied Physics, 2012, 111, .	2.5	50
10	Crystal structure solution from experimentally determined atomic pair distribution functions. Journal of Applied Crystallography, 2010, 43, 623-629.	4.5	25
11	Exact computations test stochastic Loewner evolution and scaling in glassy systems. Journal of Statistical Mechanics: Theory and Experiment, 2009, 2009, N09001.	2.3	1
12	The Liga algorithm forab initiodetermination of nanostructure. Acta Crystallographica Section A: Foundations and Advances, 2008, 64, 631-640.	0.3	17
13	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
14	Dynamics ofk-core percolation. Journal of Physics A: Mathematical and Theoretical, 2007, 40, F581-F587.	2.1	13
15	Ab initio determination of solid-state nanostructure. Nature, 2006, 440, 655-658.	27.8	169
16	Maximum independent set on diluted triangular lattices. Physical Review E, 2006, 73, 056112.	2.1	0
17	Culling avalanches in bootstrap percolation. Physical Review E, 2005, 72, 066109.	2.1	9
18	Domain states in the zero-temperature diluted antiferromagnet in an applied field. Physical Review B, 2005, 71, .	3.2	5

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19	Statistical physics of grain-boundary engineering. Physical Review E, 2005, 71, 026102.	2.1	22
20	Network Algorithms and Critical Manifolds in Disordered Systems. Springer Proceedings in Physics, 2004, , 181-194.	0.2	0
21	Scaling laws for critical manifolds in polycrystalline materials. Physical Review E, 2003, 68, 066107.	2.1	9
22	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
23	Random manifolds in non-linear resistor networks: applications to varistors and superconductors. Journal of Physics A, 2002, 35, L327-L333.	1.6	10
24	Ground state nonuniversality in the random-field Ising model. Physical Review E, 2001, 64, 036112.	2.1	12
25	Intermittence and roughening of periodic elastic media. Physical Review E, 2001, 63, 036126.	2.1	12
26	Minimum Spanning Trees on Random Networks. Physical Review Letters, 2001, 86, 5076-5079.	7.8	67
27	Extremal statistics in the energetics of domain walls. Physical Review E, 2001, 63, 066110.	2.1	10
28	Periodic elastic medium in which periodicity is relevant. Physical Review E, 2000, 62, 3230-3233.	2.1	4
29	Active clusters in disordered systems. Physical Review E, 1999, 60, 4941-4945.	2.1	9
30	Floppy modes and the free energy: Rigidity and connectivity percolation on Bethe lattices. Physical Review E, 1999, 59, 2084-2092.	2.1	61
31	Atomic diffusion, step relaxation, and step fluctuations. Physical Review E, 1999, 60, 1279-1291.	2.1	20
32	Comparison of rigidity and connectivity percolation in two dimensions. Physical Review E, 1999, 59, 2614-2622.	2.1	59
33	Ground state structure of random magnets. Physical Review E, 1998, 58, 4261-4265.	2.1	27
34	Duxbury, Moukarzel and Leath Reply:. Physical Review Letters, 1998, 80, 5452-5452.	7.8	4
35	Quasistatic Cracks and Minimal Energy Surfaces. Physical Review Letters, 1998, 80, 329-332.	7.8	50
36	First-order rigidity on Cayley trees. Physical Review E, 1997, 55, 5800-5811.	2.1	44

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37	Infinite-Cluster Geometry in Central-Force Networks. Physical Review Letters, 1997, 78, 1480-1483.	7.8	43
38	Structure-Sensitive Properties of Materials. Solid Mechanics and Its Applications, 1997, , 257-264.	0.2	3
39	Disorder-induced roughening in the three-dimensional Ising model. Physical Review B, 1996, 54, 14990-14993.	3.2	21
40	Distribution of large currents in finite-size random resistor networks. Physical Review B, 1995, 51, 6711-6714.	3.2	5
41	Stressed Backbone and Elasticity of Random Central-Force Systems. Physical Review Letters, 1995, 75, 4055-4058.	7.8	108
42	Breakdown of two-phase random resistor networks. Physical Review B, 1995, 51, 3476-3488.	3.2	33
43	Equilibration of crystal surfaces. Physical Review B, 1995, 52, 17468-17479.	3.2	33
44	Substrate Inhomogeneity and the Growth Morphology of Thin Films. Europhysics Letters, 1994, 26, 601-606.	2.0	7
45	Exactly solvable models of material breakdown. Physical Review B, 1994, 49, 12676-12687.	3.2	54
46	Failure probability and average strength of disordered systems. Physical Review Letters, 1994, 72, 2805-2808.	7.8	42
47	Fracture of heterogeneous materials with continuous distributions of local breaking strengths. Physical Review B, 1994, 49, 14905-14917.	3.2	57
48	Surface profile evolution above roughening. European Physical Journal B, 1994, 94, 311-318.	1.5	14
49	Islandâ€toâ€percolation transition during growth of metal films. Journal of Applied Physics, 1994, 75, 5016-5020.	2.5	94
50	Failure of threeâ€dimensional random composites. Journal of Applied Physics, 1994, 76, 4086-4094.	2.5	26
51	Disorder and Scaling in Regular and Hierarchical Composites. Materials Research Society Symposia Proceedings, 1991, 255, 321.	0.1	0
52	Cracks and critical current. Journal of Applied Physics, 1991, 70, 3164-3170.	2.5	9
53	Coalescence and percolation in thin metal films. Physical Review B, 1991, 44, 13163-13166.	3.2	84
54	Scaling Theory of Elasticity and Fracture in Disordered Networks. Materials Research Society Symposia Proceedings, 1990, 207, 179.	0.1	5

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55	Capacitance and dielectric breakdown of metal loaded dielectrics. Journal Physics D: Applied Physics, 1990, 23, 1546-1553.	2.8	13
56	From moduli scaling to breakdown scaling: A moment-spectrum analysis. Physical Review B, 1989, 40, 4889-4897.	3.2	28
57	Theory of dielectric breakdown in metal-loaded dielectrics. Physical Review B, 1988, 37, 2785-2791.	3.2	110
58	Current-dependent resistance of dilute switching networks. Physical Review B, 1988, 37, 5629-5632.	3.2	1
59	Crack arrest by residual bonding in resistor and spring networks. Physical Review B, 1988, 38, 9257-9260.	3.2	22
60	Size Effects of Electrical Breakdown in Quenched Random Media. Physical Review Letters, 1987, 59, 155-155.	7.8	4
61	Breakdown properties of quenched random systems: The random-fuse network. Physical Review B, 1987, 36, 367-380.	3.2	272
62	The failure distribution in percolation models of breakdown. Journal of Physics A, 1987, 20, L411-L415.	1.6	77
63	Size and location of the largest current in a random resistor network. Physical Review B, 1987, 36, 5411-5419.	3.2	45
64	Size Effects of Electrical Breakdown in Quenched random Media. Physical Review Letters, 1986, 57, 1052-1055.	7.8	248