Stefano Zapperi

List of Publications by Year
in descending order

242 papers	10,693 citations	36303 51 h-index	38395 95 g-index
253 all docs	253 docs citations	253 times ranked	6697 citing authors

#	Article	IF	Citations
1	Statistical models of fracture. Advances in Physics, 2006, 55, 349-476.	14.4	507
2	Dislocation Avalanches, Strain Bursts, and the Problem of Plastic Forming at the Micrometer Scale. Science, 2007, 318, 251-254.	12.6	506
3	Intermittent dislocation flow in viscoplastic deformation. Nature, 2001, 410, 667-671.	27.8	466
4	Colloquium: Modeling friction: From nanoscale to mesoscale. Reviews of Modern Physics, 2013, 85, 529-552.	45.6	436
5	Dynamics of a ferromagnetic domain wall: Avalanches, depinning transition, and the Barkhausen effect. Physical Review B, 1998, 58, 6353-6366.	3.2	338
6	Self-Organized Branching Processes: Mean-Field Theory for Avalanches. Physical Review Letters, 1995, 75, 4071-4074.	7.8	253
7	Paths to self-organized criticality. Brazilian Journal of Physics, 2000, 30, 27-41.	1.4	244
8	Life-support system benefits from noise. Nature, 1998, 393, 127-128.	27.8	223
9	Cellâ€“cell adhesion and 3D matrix confinement determine jamming transitions in breast cancer invasion. Nature Cell Biology, 2020, 22, 1103-1115.	10.3	209
10	First-Order Transition in the Breakdown of Disordered Media. Physical Review Letters, 1997, 78, 1408-1411.	7.8	207
11	Plasticity and avalanche behaviour in microfracturing phenomena. Nature, 1997, 388, 658-660.	27.8	197
12	How self-organized criticality works: A unified mean-field picture. Physical Review E, 1998, 57, 6345-6362.	2.1	195
13	Scaling Exponents for Barkhausen Avalanches in Polycrystalline and Amorphous Ferromagnets. Physical Review Letters, 2000, 84, 4705-4708.	7.8	192
14	The role of pressure in cancer growth. European Physical Journal Plus, 2015, 130, 1.	2.6	186
15	Universality beyond power laws and the average avalanche shape. Nature Physics, 2011, 7, 316-320.	16.7	185
16	Avalanche and spreading exponents in systems with absorbing states. Physical Review E, 1999, 59, 6175-6179.	2.1	167
17	Self-organized criticality as an absorbing-state phase transition. Physical Review E, 1998, 57, 5095-5105.	2.1	161
18	Absorbing-state phase transitions in fixed-energy sandpiles. Physical Review E, 2000, 62, 4564-4582.	2.1	149

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19	Oral mucositis: the hidden side of cancer therapy. Journal of Experimental and Clinical Cancer Research, 2020, 39, 210.	8.6	146
20	Driving, Conservation, and Absorbing States in Sandpiles. Physical Review Letters, 1998, 81, 5676-5679.	7.8	144
21	Renormalization scheme for self-organized criticality in sandpile models. Physical Review Letters, 1994, 72, 1690-1693.	7.8	131
22	Quasi-periodic events in crystal plasticity and the self-organized avalanche oscillator. Nature, 2012, 490, 517-521.	27.8	129
23	Dislocation Jamming and Andrade Creep. Physical Review Letters, 2002, 89, 165501.	7.8	128
24	Damage in fiber bundle models. European Physical Journal B, 2000, 17, 269-279.	1.5	122
25	Dynamics of a Ferromagnetic Domain Wall and the Barkhausen Effect. Physical Review Letters, 1997, 79, 4669-4672.	7.8	117
26	Signature of effective mass in crackling-noise asymmetry. Nature Physics, 2005, 1, 46-49.	16.7	113
27	Avalanches in 2D Dislocation Systems: Plastic Yielding Is Not Depinning. Physical Review Letters, 2014, 112, 235501.	7.8	111
28	Topography of epithelialâ€“mesenchymal plasticity. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 5902-5907.	7.1	108
29	Avalanches in breakdown and fracture processes. Physical Review E, 1999, 59, 5049-5057.	2.1	102
30	From Damage Percolation to Crack Nucleation Through Finite Size Criticality. Physical Review Letters, 2013, 110, 185505.	7.8	101
31	Order Parameter and Scaling Fields in Self-Organized Criticality. Physical Review Letters, 1997, 78, 4793-4796.	7.8	99
32	Avalanches and clusters in planar crack front propagation. Physical Review E, 2010, 81, 046116.	2.1	87
33	Renormalization approach to the self-organized critical behavior of sandpile models. Physical Review E, 1995, 51, 1711-1724.	2.1	85
34	Universality in sandpiles. Physical Review E, 1999, 59, R12-R15.	2.1	84
35	The Barkhausen Effect. , 2006, , 181-267.		82
36	Identifying inhibitors of epithelialâ€“mesenchymal plasticity using a network topology-based approach. Npj Systems Biology and Applications, 2020, 6, 15.	3.0	80

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37	Depinning transition of dislocation assemblies: Pileups and low-angle grain boundaries. Physical Review B, 2004, 69, .	3.2	73
38	Size effects on the fracture of microscale and nanoscale materials. Nature Reviews Materials, 2018, 3, 211-224.	48.7	72
39	Critical behavior of a one-dimensional fixed-energy stochastic sandpile. Physical Review E, 2001, 64, 056104.	2.1	70
40	Suppression of Friction by Mechanical Vibrations. Physical Review Letters, 2009, 103, 085502.	7.8	68
41	Strain Modulation of Graphene by Nanoscale Substrate Curvatures: A Molecular View. Nano Letters, 2018, 18, 2098-2104.	9.1	62
42	Deformation of Crystals: Connections with Statistical Physics. Annual Review of Materials Research, 2017, 47, 217-246.	9.3	61
43	Self-organized branching processes: Avalanche models with dissipation. Physical Review E, 1996, 54, 2483-2488.	2.1	59
44	Universal features of amorphous plasticity. Nature Communications, 2017, 8, 15928.	12.8	59
45	Crack roughness and avalanche precursors in the random fuse model. Physical Review E, 2005, 71, 026106.	2.1	58
46	Avalanche localization and crossover scaling in amorphous plasticity. Physical Review E, 2013, 88, 062403.	2.1	58
47	Renormalization Group Approach to the Critical Behavior of the Forest-Fire Model. Physical Review Letters, 1995, 75, 465-468.	7.8	56
48	Asymmetric Flow in Symmetric Branched Structures. Physical Review Letters, 1998, 81, 926-929.	7.8	55
49	Tearing transition and plastic flow in superconducting thin films. Nature Materials, 2003, 2, 477-481.	27.5	54
50	Size effects in statistical fracture. Journal Physics D: Applied Physics, 2009, 42, 214012.	2.8	54
51	Complexity in dislocation dynamics: experiments. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2001, 309-310, 360-364.	5.6	53
52	Statistical properties of fracture in a random spring model. Physical Review E, 2005, 71, 066106.	2.1	53
53	Bursts of activity in collective cell migration. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 11408-11413.	7.1	51
54	Direct Observation of Percolation in the Yielding Transition of Colloidal Glasses. Physical Review Letters, 2017, 118, 148001.	7.8	49

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55	Brownian Forces in Sheared Granular Matter. Physical Review Letters, 2006, 96, 118002.	7.8	45
56	Senescent Cells in Growing Tumors: Population Dynamics and Cancer Stem Cells. PLoS Computational Biology, 2012, 8, e1002316.	3.2	45
57	Depinning of a dislocation: the influence of long-range interactions. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2001, 309-310, 348-351.	5.6	44
58	Automatic design of mechanical metamaterial actuators. Nature Communications, 2020, 11, 4162.	12.8	44
59	Role of Disorder in the Size Scaling of Material Strength. Physical Review Letters, 2008, 100, 055502.	7.8	42
60	Complexity in dislocation dynamics: model. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2001, 309-310, 324-327.	5.6	41
61	Flux Front Penetration in Disordered Superconductors. Physical Review Letters, 2001, 86, 3622-3625.	7.8	41
62	The role of stationarity in magnetic crackling noise. Journal of Statistical Mechanics: Theory and Experiment, 2006, 2006, P01002-P01002.	2.3	39
63	Fracture Strength of Disordered Media: Universality, Interactions, and Tail Asymptotics. Physical Review Letters, 2012, 108, 065504.	7.8	39
64	Fracture Strength: Stress Concentration, Extreme Value Statistics, and the Fate of the Weibull Distribution. Physical Review Applied, 2014, 2, .	3.8	39
65	Dynamic fracture model for acoustic emission. European Physical Journal B, 2003, 36, 203-207.	1.5	38
66	Power spectra of self-organized critical sandpiles. Journal of Statistical Mechanics: Theory and Experiment, 2005, 2005, L11001-L11001.	2.3	37
67	Dilatancy and friction in sheared granular media. European Physical Journal E, 2000, 2, 181.	1.6	35
68	Do cancer cells undergo phenotypic switching? The case for imperfect cancer stem cell markers. Scientific Reports, 2012, 2, 441.	3.3	35
69	Low-field hysteresis in disordered ferromagnets. Physical Review B, 2002, 65, .	3.2	34
70	Volume Changes During Active Shape Fluctuations in Cells. Physical Review Letters, 2015, 114, 208101.	7.8	34
71	Complexity in cancer stem cells and tumor evolution: Toward precision medicine. Seminars in Cancer Biology, 2017, 44, 3-9.	9.6	34
72	Local Rigidity and Self-Organized Criticality for Avalanches. Europhysics Letters, 1995, 29, 111-116.	2.0	33

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73	Sandpile model on the Sierpinski gasket fractal. Physical Review E, 1996, 54, 272-277.	2.1	32
74	Dynamic hysteresis from zigzag domain walls: Discrete model and Monte Carlo simulations. Physical Review B, 2007, 75, .	3.2	32
75	Onset of frictional slip by domain nucleation in adsorbed monolayers. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 1311-1316.	7.1	32
76	Crackling noise in plasticity. European Physical Journal: Special Topics, 2014, 223, 2353-2367.	2.6	32
77	From jamming to collective cell migration through a boundary induced transition. Soft Matter, 2018, 14, 3774-3782.	2.7	32
78	Barkhausen noise in soft amorphous magnetic materials under applied stress. Journal of Applied Physics, 1999, 85, 5196-5198.	2.5	31
79	Fatigue failure of disordered materials. Journal of Statistical Mechanics: Theory and Experiment, 2007, 2007, P02003-P02003.	2.3	31
80	Rheology of colloidal microphases in a model with competing interactions. Physical Review E, 2008, 78, 021402.	2.1	31
81	Overshoot during phenotypic switching of cancer cell populations. Scientific Reports, 2015, 5, 15464.	3.3	31
82	Mathematical Modeling of the First Inflation of Degassed Lungs. Annals of Biomedical Engineering, 1998, 26, 608-617.	2.5	30
83	On the power spectrum of magnetization noise. Journal of Magnetism and Magnetic Materials, 2002, 242-245, 1085-1088.	2.3	30
84	Avalanche spatial structure and multivariable scaling functions: Sizes, heights, widths, and views through windows. Physical Review E, 2011, 84, 061103.	2.1	30
85	Mean-field behavior of the sandpile model below the upper critical dimension. Physical Review E, 1998, 57, R6241-R6244.	2.1	29
86	Critical exponents in stochastic sandpile models. Computer Physics Communications, 1999, 121-122, 299-302.	7.5	29
87	MATERIALS SCIENCE: Fluctuations in Plasticity at the Microscale. Science, 2006, 312, 1151-1152.	12.6	29
88	Stochastic dynamics of a sheared granular medium. European Physical Journal B, 2008, 64, 531-535.	1.5	29
89	From Brittle to Ductile Fracture in Disordered Materials. Physical Review Letters, 2010, 105, 155502.	7.8	29
90	Renormalization of Nonequilibrium Systems with Critical Stationary States. Physical Review Letters, 1996, 77, 4560-4563.	7.8	27

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91	Estimating the Binding of Sars-CoV-2 Peptides to HLA Class I in Human Subpopulations Using Artificial Neural Networks. Cell Systems, 2020, 11, 412-417.e2.	6.2	27
92	Scaling behavior in crackle sound during lung inflation. Physical Review E, 1999, 60, 4659-4663.	2.1	26
93	Planar cracks in the fuse model. European Physical Journal B, 2000, 17, 131-136.	1.5	26
94	Percolation and localization in the random fuse model. Journal of Statistical Mechanics: Theory and Experiment, 2004, 2004, P08001.	2.3	26
95	Effects of thickness on the statistical properties of the Barkhausen noise in amorphous films. Physica B: Condensed Matter, 2006, 384, 144-146.	2.7	26
96	Glassy features of crystal plasticity. Physical Review B, 2016, 94, .	3.2	26
97	Universal Low-Frequency Vibrational Modes in Silica Glasses. Physical Review Letters, 2020, 125, 085501.	7.8	25
98	Avalanches, loading and finite size effects in 2D amorphous plasticity: results from a finite element model. Journal of Statistical Mechanics: Theory and Experiment, 2015, 2015, P02011.	2.3	24
99	Crack avalanches in the three-dimensional random fuse model. Physica A: Statistical Mechanics and Its Applications, 2005, 357, 129-133.	2.6	23
100	Morphology of two-dimensional fracture surfaces. Journal of Statistical Mechanics: Theory and Experiment, 2006, 2006, L10002-L10002.	2.3	23
101	Regeneration in distantly related species: common strategies and pathways. Npj Systems Biology and Applications, 2018, 4, 5.	3.0	23
102	Dynamic hysteresis in finemet thin films. IEEE Transactions on Magnetics, 2003, 39, 2666-2668.	2.1	22
103	Barkhausen instabilities from labyrinthine magnetic domains. Physical Review B, 2011, 84, .	3.2	22
104	Human breast and melanoma cancer stem cells biomarkers. Cancer Letters, 2013, 338, 69-73.	7.2	22
105	Mechanical Properties of Growing Melanocytic Nevi and the Progression to Melanoma. PLoS ONE, 2014, 9, e94229.	2.5	22
106	Osmotic stress affects functional properties of human melanoma cell lines. European Physical Journal Plus, 2015, 130, 1.	2.6	22
107	Force fluctuation in a driven elastic chain. Physical Review B, 2001, 63, .	3.2	21
108	Loss Separation for Dynamic Hysteresis in Ferromagnetic Thin Films. Physical Review Letters, 2006, 97, 257203.	7.8	21

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109	Deformation and fracture of echinoderm collagen networks. Journal of the Mechanical Behavior of Biomedical Materials, 2017, 65, 42-52.	3.1	21
110	Metamaterial architecture from a self-shaping carnivorous plant. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 18777-18782.	7.1	21
111	Molecular mechanisms of heterogeneous oligomerization of huntingtin proteins. Scientific Reports, 2019, 9, 7615.	3.3	21
112	Analysis of damage clusters in fracture processes. Physica A: Statistical Mechanics and Its Applications, 1999, 270, 57-62.	2.6	20
113	Blood Flow Contributions to Cancer Metastasis. IScience, 2020, 23, 101073.	4.1	20
114	Crack roughness in the two-dimensional random threshold beam model. Physical Review E, 2008, 78, 046105.	2.1	19
115	Mechanics of disordered auxetic metamaterials. European Physical Journal B, 2018, 91, 1.	1.5	19
116	Explaining the dynamics of tumor aggressiveness: At the crossroads between biology, artificial intelligence and complex systems. Seminars in Cancer Biology, 2018, 53, 42-47.	9.6	19
117	Phase Transitions in a Disordered System in and out of Equilibrium. Physical Review Letters, 2004, 92, 257203.	7.8	18
118	Ground-state optimization and hysteretic demagnetization: The random-field Ising model. Physical Review B, 2005, 71, .	3.2	18
119	Triggering Frictional Slip by Mechanical Vibrations. Tribology Letters, 2012, 48, 95-102.	2.6	18
120	Deformation and failure of curved colloidal crystal shells. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 14545-14550.	7.1	18
121	Damage Accumulation in Silica Glass Nanofibers. Nano Letters, 2018, 18, 4100-4106.	9.1	18
122	Elementary plastic events in amorphous silica. Physical Review E, 2019, 100, 060602.	2.1	18
123	Renormalization scheme for forest-fire models. Journal of Physics A, 1996, 29, 2981-3004.	1.6	17
124	Dynamically driven renormalization group. Journal of Statistical Physics, 1997, 88, 47-79.	1.2	17
125	Microscopic foundations of the Rayleigh law of hysteresis. Journal of Magnetism and Magnetic Materials, 2002, 242-245, 987-992.	2.3	17
126	Shape of a Barkhausen pulse. Journal of Magnetism and Magnetic Materials, 2004, 272-276, E533-E534.	2.3	17

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127	Temperature-Dependent Adhesion of Graphene Suspended on a Trench. Nano Letters, 2016, 16, 387-391.	9.1	17
128	Chromatin and Cytoskeletal Tethering Determine Nuclear Morphology in Progerin-Expressing Cells. Biophysical Journal, 2020, 118, 2319-2332.	0.5	17
129	New perspectives for the Barkhausen effect. Computational Materials Science, 2001, 20, 436-442.	3.0	16
130	Crack surface roughness in three-dimensional random fuse networks. Physical Review E, 2006, 74, 026105.	2.1	16
131	Fracture size effects from disordered lattice models. International Journal of Fracture, 2008, 154, 51-59.	2.2	16
132	Fracture roughness in three-dimensional beam lattice systems. Physical Review E, 2010, 82, 026103.	2.1	16
133	Dielectric Breakdown and Avalanches at Nonequilibrium Metal-Insulator Transitions. Physical Review Letters, 2011, 107, 276401.	7.8	16
134	Integrative analysis of pathway deregulation in obesity. Npj Systems Biology and Applications, 2017, 3, 18.	3.0	16
135	Effect of Dipolar Interactions for Domain-Wall Dynamics in Magnetic Thin Films. IEEE Transactions on Magnetics, 2010, 46, 228-230.	2.1	15
136	Density scaling in the mechanics of a disordered mechanical meta-material. Applied Physics Letters, 2019, 114, .	3.3	15
137	Phase transitions in cell migration. Nature Reviews Physics, 2020, 2, 516-517.	26.6	15
138	Digital strategies for structured and architected materials design. APL Materials, 2021, 9, .	5.1	15
139	Predicting the failure of two-dimensional silica glasses. Nature Communications, 2022, 13, .	12.8	15
140	Volume distributions of avalanches in lung inflation: A statistical mechanical approach. Physical Review E, 1997, 56, 3385-3394.	2.1	14
141	Grain boundaries in vortex matter. Physical Review B, 2005, 72, .	3.2	14
142	Protein accumulation in the endoplasmic reticulum as a non-equilibrium phase transition. Nature Communications, 2014, 5, 3620.	12.8	14
143	Scalar model for frictional precursors dynamics. Scientific Reports, 2015, 5, 8086.	3.3	14
144	Effect of impact energy on the shape of granular heaps. Granular Matter, 2000, 2, 97-100.	2.2	13

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145	Rayleigh loops in the random-field Ising model on the Bethe lattice. Physical Review B, 2002, 65, .	3.2	13
146	Growth of a Vortex Polycrystal in Type II Superconductors. Physical Review Letters, 2004, 92, 257004.	7.8	13
147	Optimization and Plasticity in Disordered Media. Physical Review Letters, 2009, 103, 225502.	7.8	13
148	Universality classes and crossover scaling of Barkhausen noise in thin films. Physical Review B, 2014, 89, .	3.2	12
149	Cross-Talk Between circRNAs and mRNAs Modulates MiRNA-mediated Circuits and Affects Melanoma Plasticity. Cancer Microenvironment, 2019, 12, 95-104.	3.1	12
150	Deblocking of interacting particle assemblies: from pinning to jamming. Brazilian Journal of Physics, 2003, 33, 557-572.	1.4	12
151	Fluctuations and Correlations in Sandpile Models. Physical Review Letters, 1999, 83, 1962-1965.	7.8	11
152	Fracture statistics in the three-dimensional random fuse model. International Journal of Fracture, 2006, 140, 99-111.	2.2	11
153	Eddy current damping of a moving domain wall: Beyond the quasistatic approximation. Physical Review B, 2007, 76, .	3.2	11
154	Hysteresis and noise in ferromagnetic materials with parallel domain walls. Physical Review B, 2009, 79, .	3.2	11
155	Current challenges for statistical physics in fracture and plasticity. European Physical Journal B, 2012, 85, 1.	1.5	11
156	Growth and form of melanoma cell colonies. Journal of Statistical Mechanics: Theory and Experiment, 2013, 2013, P02032.	2.3	11
157	Crossover behavior in interface depinning. Physical Review E, 2015, 92, 022146.	2.1	11
158	Fracture Size Effects in Nanoscale Materials: The Case of Graphene. Physical Review Applied, 2015, 4, .	3.8	11
159	Wrinkle motifs in thin films. Scientific Reports, 2015, 5, 8938.	3.3	11
160	Cholesterol impairment contributes to neuroserpin aggregation. Scientific Reports, 2017, 7, 43669.	3.3	11
161	Irreversibility transition of colloidal polycrystals under cyclic deformation. Scientific Reports, 2017, 7, 45550.	3.3	11
162	Excitation Spectra in Crystal Plasticity. Physical Review Letters, 2017, 119, 265501.	7.8	11

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163	Classification of triple-negative breast cancers through a Boolean network model of the epithelial-mesenchymal transition. Cell Systems, 2021, 12, 457-462.e4.	6.2	11
164	Universality and size effects in the Barkhausen noise. Journal of Applied Physics, 2000, 87, 7031-7033.	2.5	10
165	Statistical dynamics of dislocations in simple models of plastic deformation: Phase transitions and related phenomena. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2005, 400-401, 191-198.	5.6	10
166	Laminar Flow of a Sheared Vortex Crystal: Scars in Flat Geometry. Physical Review Letters, 2011, 106, 245501.	7.8	10
167	MicroRNA-222 Regulates Melanoma Plasticity. Journal of Clinical Medicine, 2020, 9, 2573.	2.4	10
168	Classification of triple negative breast cancer by epithelial mesenchymal transition and the tumor immune microenvironment. Scientific Reports, 2022, 12, .	3.3	10
169	Dynamical real space renormalization group applied to sandpile models. Physical Review E, 1999, 60, 1239-1251.	2.1	9
170	Boundary effects on flux penetration in disordered superconductors. Physical Review B, 2002, 66, .	3.2	9
171	Signature of negative domain wall mass in soft magnetic materials. Journal of Magnetism and Magnetic Materials, 2007, 316, 436-441.	2.3	9
172	Discrete fracture model with anisotropic load sharing. Journal of Statistical Mechanics: Theory and Experiment, 2008, 2008, P01004.	2.3	9
173	Comment on â€œSelf-organized criticality and absorbing states: Lessons from the Ising modelâ€• Physical Review E, 2008, 77, 048101; discussion 048102.	2.1	9
174	Modeling Domain Wall Dynamics in Thin Magnetic Strips With Disorder. IEEE Transactions on Magnetics, 2010, 46, 262-265.	2.1	9
175	Role of the Number of Microtubules in Chromosome Segregation during Cell Division. PLoS ONE, 2015, 10, e0141305.	2.5	9
176	Barkhausen noise from zigzag domain walls. Journal of Statistical Mechanics: Theory and Experiment, 2006, 2006, P08020-P08020.	2.3	8
177	Dynamic Instability of a Growing Adsorbed Polymorphic Filament. Biophysical Journal, 2011, 101, 267-275.	0.5	8
178	Damage accumulation in quasibrittle fracture. Physical Review E, 2014, 90, 012408.	2.1	8
179	Protein-driven lipid domain nucleation in biological membranes. Physical Review E, 2019, 100, 042410.	2.1	8
180	Roughness and multiscaling of planar crack fronts. Journal of Statistical Mechanics: Theory and Experiment, 2010, 2010, P11014.	2.3	7

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181	Impact of the cross-talk between circular and messenger RNAs on cell regulation. Journal of Theoretical Biology, 2018, 454, 386-395.	1.7	7
182	Critical hysteresis from random anisotropy. Physical Review B, 2004, 69, .	3.2	6
183	Effect of disorder and notches on crack roughness. Physical Review E, 2007, 76, 056111.	2.1	6
184	Fracture in three-dimensional random fuse model: recent advances through high-performance computing. Journal of Computer-Aided Materials Design, 2007, 14, 25-35.	0.7	6
185	Friction memory in the stick-slip of a sheared granular bed. Journal of Non-Crystalline Solids, 2011, 357, 749-753.	3.1	6
186	Emergent patterns of localized damage as a precursor to catastrophic failure in a random fuse network. Physical Review E, 2013, 87, 042811.	2.1	6
187	Irreversible transition of amorphous and polycrystalline colloidal solids under cyclic deformation. Physical Review E, 2018, 98, .	2.1	6
188	Evidence of a SARS-CoV-2 double Spike mutation D614G/S939F potentially affecting immune response of infected subjects. Computational and Structural Biotechnology Journal, 2022, 20, 733-744.	4.1	6
189	Anomalous roughness of fracture surfaces in 2D fuse models. International Journal of Fracture, 2008, 154, 119-130.	2.2	5
190	Visualization of avalanches in magnetic thin films: temporal processing. Journal of Statistical Mechanics: Theory and Experiment, 2009, 2009, P01020.	2.3	5
191	Role of the sample thickness in planar crack propagation. Physical Review E, 2013, 88, 042411.	2.1	5
192	Dislocation mutual interactions mediated by mobile impurities and the conditions for plastic instabilities. Physical Review E, 2014, 89, 022403.	2.1	5
193	Conformational Mechanism for the Stability of Microtubule-Kinetochore Attachments. Biophysical Journal, 2014, 107, 289-300.	0.5	5
194	Navigation Strategies of Motor Proteins on Decorated Tracks. PLoS ONE, 2015, 10, e0136945.	2.5	5
195	Modeling mechanical control of spindle orientation of intestinal crypt stem cells. Journal of Theoretical Biology, 2017, 430, 103-108.	1.7	5
196	Role of body temperature variations in bat immune response to viral infections. Journal of the Royal Society Interface, 2021, 18, 20210211.	3.4	5
197	From mechanism-based to data-driven approaches in materials science. Materials Theory, 2021, 5, .	4.3	5
198	Depinning of interacting particles in random media. Physical Review B, 2000, 61, 14791-14794.	3.2	4

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199	Investigation of scaling properties of hysteresis in Finemet thin films. Journal of Magnetism and Magnetic Materials, 2004, 272-276, E913-E914.	2.3	4
200	Looking at How Things Slip. Science, 2010, 330, 184-185.	12.6	4
201	Size effects in dislocation depinning models for plastic yield. Journal of Statistical Mechanics: Theory and Experiment, 2013, 2013, P04029.	2.3	4
202	Atomic-Scale Front Propagation at the Onset of Frictional Sliding. Journal of Physical Chemistry Letters, 2017, 8, 5438-5443.	4.6	4
203	Gene expression signature of obesity in monozygotic twins. Physiological Measurement, 2018, 39, 044008.	2.1	4
204	Is demagnetization an efficient optimization method?. Journal of Magnetism and Magnetic Materials, 2004, 272-276, E1009-E1010.	2.3	3
205	Jamming and Yielding of Dislocations: from Crystal Plasticity to Superconducting Vortex Flow. , 2006, , 189-205.		3
206	Slip Line Growth as a Critical Phenomenon. Physical Review Letters, 2009, 102, 115502.	7.8	3
207	New elements for a theory of the Barkhausen effect. European Physical Journal Special Topics, 1998, 08, Pr2-319-Pr2-322.	0.2	3
208	Automatic designÂof chiral mechanical metamaterials. APL Materials, 2021, 9, .	5.1	3
209	Universal density of low-frequency states in silica glass at finite temperatures. Physical Review E, 2022, 105, .	2.1	3
210	Complex dynamics of magnetic domain walls. Physica A: Statistical Mechanics and Its Applications, 2002, 314, 230-234.	2.6	2
211	Vortex nucleation and flux front propagation in type II superconductors. Physica A: Statistical Mechanics and Its Applications, 2004, 342, 383-387.	2.6	2
212	Grain boundary diffusion in a Peierlsâ€“Nabarro potential. Journal of Statistical Mechanics: Theory and Experiment, 2007, 2007, P12004-P12004.	2.3	2
213	Reverse age discrimination. Nature Physics, 2007, 3, 582-583.	16.7	2
214	Thermally activated domain wall dynamics in a disordered magnetic nanostrip. Journal of Applied Physics, 2011, 109, 07D345.	2.5	2
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