Lucilla De Arcangelis

List of Publications by Citations

116 papers	3,620 citations	32 h-index	56 g-index
122 ext. papers	3,986 ext. citations	3.7 avg, IF	5.33 L-index

#	Paper	IF	Citations
116	A random fuse model for breaking processes. *Journal De Physique (Paris), Lettres*, **1985**, 46, 585-590		313
115	Self-organized criticality model for brain plasticity. *Physical Review Letters*, **2006**, 96, 028107	7.4	179
114	Electrical breakdown in a fuse network with random, continuously distributed breaking strengths. *Physical Review B*, **1988**, 37, 7625-7637	3.3	178
113	Multiscaling approach in random resistor and random superconducting networks. *Physical Review B*, **1986**, 34, 4656-4673	3.3	156
112	Social percolation models. *Physica A: Statistical Mechanics and Its Applications*, **2000**, 277, 239-247	3.3	145
111	Scaling laws in fracture. *Physical Review B*, **1989**, 40, 877-880	3.3	124
110	Learning as a phenomenon occurring in a critical state. *Proceedings of the National Academy of Sciences of the United States of America*, **2010**, 107, 3977-81	11.5	110
109	Exact Relations Between Damage Spreading and Thermodynamical Properties. *Europhysics Letters*, **1989**, 8, 315-320	1.6	110
108	Statistical physics approach to earthquake occurrence and forecasting. *Physics Reports*, **2016**, 628, 1-91	27.7	103
107	Scaling and multiscaling laws in random fuse networks. *Physical Review B*, **1989**, 39, 2678-2684	3.3	99
106	Hydrodynamic dispersion in network models of porous media. *Physical Review Letters*, **1986**, 57, 996-999	7.4	93
105	Balance between excitation and inhibition controls the temporal organization of neuronal avalanches. *Physical Review Letters*, **2012**, 108, 228703	7.4	90
104	Universality in solar flare and earthquake occurrence. *Physical Review Letters*, **2006**, 96, 051102	7.4	79
103	Influence of time and space correlations on earthquake magnitude. *Physical Review Letters*, **2008**, 100, 038501	7.4	76
102	Percolation, gelation and dynamical behaviour in colloids. *Journal of Physics Condensed Matter*, **2004**, 16, S4831-S4839	1.8	64
101	Fractal Shapes of Deterministic Cracks. *Europhysics Letters*, **1989**, 10, 147-152	1.6	64
100	Slow dynamics in gelation phenomena: from chemical gels to colloidal glasses. *Physical Review E*, **2004**, 69, 051103	2.4	63

99	Dynamical scaling in branching models for seismicity. *Physical Review Letters*, **2007**, 98, 098501	7.4	62
98	Criticality as a signature of healthy neural systems. *Frontiers in Systems Neuroscience*, **2015**, 9, 22	3.5	59
97	Activity-dependent neural network model on scale-free networks. *Physical Review E*, **2007**, 76, 016107	2.4	57
96	A unifying model for chemical and colloidal gels. *Europhysics Letters*, **2003**, 63, 1-7	1.6	46
95	Spatial organization of foreshocks as a tool to forecast large earthquakes. *Scientific Reports*, **2012**, 2, 846	4.9	44
94	Damage Spreading in Spin Glasses. *Europhysics Letters*, **1989**, 9, 749-754	1.6	43
93	Balance of excitation and inhibition determines 1/f power spectrum in neuronal networks. *Chaos*, **2017**, 27, 047402	3.3	41
92	Role of static stress diffusion in the spatiotemporal organization of aftershocks. *Physical Review Letters*, **2009**, 103, 038501	7.4	41
91	Self-organized criticality on small world networks. *Physica A: Statistical Mechanics and Its Applications*, **2002**, 308, 545-549	3.3	41
90	Model for surface cracking. *Physical Review B*, **1993**, 48, 3666-3676	3.3	41
89	The earthquake magnitude is influenced by previous seismicity. *Geophysical Research Letters*, **2012**, 39, n/a-n/a	4.9	40
88	Multiple-time scaling and universal behavior of the earthquake interevent time distribution. *Physical Review Letters*, **2010**, 104, 158501	7.4	40
87	Comparative study of damage spreading in the Ising model using heat-bath, glauber, and metropolis dynamics. *Journal of Statistical Physics*, **1990**, 59, 1043-1050	1.5	37
86	Unjamming dynamics: the micromechanics of a seismic fault model. *Physical Review Letters*, **2010**, 104, 238001	7.4	34
85	On the temporal organization of neuronal avalanches. *Frontiers in Systems Neuroscience*, **2014**, 8, 204	3.5	33
84	Activity-dependent neuronal model on complex networks. *Frontiers in Physiology*, **2012**, 3, 62	4.6	30
83	Identification and spatiotemporal organization of aftershocks. *Journal of Geophysical Research*, **2009**, 114,		29
82	Temporal correlations in neuronal avalanche occurrence. *Scientific Reports*, **2016**, 6, 24690	4.9	25

81	Memory in self-organized criticality. *Europhysics Letters*, **2005**, 72, 678-684	1.6	25
80	Hydrodynamic interactions in deep bed filtration. *Physics of Fluids*, **1996**, 8, 6-14	4.4	25
79	Are dragon-king neuronal avalanches dungeons for self-organized brain activity?. *European Physical Journal: Special Topics*, **2012**, 205, 243-257	2.3	24
78	Mechanical origin of aftershocks. *Scientific Reports*, **2015**, 5, 15560	4.9	24
77	Dynamical scaling and generalized Omori law. *Geophysical Research Letters*, **2007**, 34, n/a-n/a	4.9	24
76	A percolation dynamic approach to the sol-gel transition. *Journal of Physics A*, **1998**, 31, 1901-1910		24
75	Elastic critical behavior in a three-dimensional model for polymer gels. *Physical Review E*, **2002**, 65, 041803	2.4	23
74	Variability of the b value in the Gutenberg–Richter distribution. *Geophysical Journal International*, **2014**, 199, 1765-1771	2.6	22
73	Viscosity critical behaviour at the gel point in a 3d lattice model. *European Physical Journal E*, **2000**, 2, 359	1.5	22
72	Optimal percentage of inhibitory synapses in multi-task learning. *Scientific Reports*, **2015**, 5, 9895	4.9	21
71	Synaptic plasticity and neuronal refractory time cause scaling behaviour of neuronal avalanches. *Scientific Reports*, **2016**, 6, 32071	4.9	20
70	Dynamic Weakening by Acoustic Fluidization during Stick-Slip Motion. *Physical Review Letters*, **2015**, 115, 128001	7.4	20
69	Criticality in the brain. *Journal of Statistical Mechanics: Theory and Experiment*, **2014**, 2014, P03026	1.9	20
68	Complex viscosity behavior and cluster formation in attractive colloidal systems. *Physical Review E*, **2006**, 73, 020402	2.4	20
67	Cluster formulation for frustrated spin models. *Physica A: Statistical Mechanics and Its Applications*, **1993**, 192, 167-174	3.3	20
66	Brain modularity controls the critical behavior of spontaneous activity. *Scientific Reports*, **2014**, 4, 4312	4.9	19
65	The Overlap of Aftershock Coda Waves and Short-Term Postseismic Forecasting. *Journal of Geophysical Research: Solid Earth*, **2018**, 123, 5661-5674	3.6	18
64	Fractals and multifractals: Applications in physics. *Physica A: Statistical Mechanics and Its Applications*, **1989**, 157, 21-30	3.3	18

63	Statistics of slipping event sizes in granular seismic fault models. *Europhysics Letters*, **2011**, 95, 54002	1.6	17
62	Multifractal structure of the incipient infinite percolating cluster. *Physical Review B*, **1987**, 36, 5631-5634	3.3	17
61	Scaling behavior of the earthquake intertime distribution: influence of large shocks and time scales in the Omori law. *Physical Review E*, **2012**, 86, 066119	2.4	16
60	On the damage spreading in Ising spin glasses. *Physica A: Statistical Mechanics and Its Applications*, **1991**, 178, 29-43	3.3	16
59	The Ising Spin Glass and Phase Space Geometry. *Europhysics Letters*, **1990**, 13, 587-592	1.6	15
58	Scale-free networks by preferential depletion. *Europhysics Letters*, **2011**, 95, 16005	1.6	14
57	Clusters in attractive colloids. *Journal of Physics Condensed Matter*, **2006**, 18, S2383-S2390	1.8	14
56	Deterministic Growth of Diffusion-Limited Aggregation with Quenched Disorder. *Europhysics Letters*, **1990**, 13, 341-347	1.6	14
55	Statistical Features of Foreshocks in Instrumental and ETAS Catalogs. *Pure and Applied Geophysics*, **2017**, 174, 1679-1697	2.2	13
54	Period distribution for Kauffman cellular automata. *Journal De Physique*, **1987**, 48, 1881-1886		13
53	Critical neural networks with short- and long-term plasticity. *Physical Review E*, **2018**, 97, 032312	2.4	12
52	Modelling the influence of photospheric turbulence on solar flare statistics. *Nature Communications* , **2014**, 5, 5035	17.4	12
51	The Relevance of Foreshocks in Earthquake Triggering: A Statistical Study. *Entropy*, **2019**, 21,	2.8	11
50	Molecular dynamics simulations of incipient carbonaceous nanoparticle formation at flame conditions. *Combustion Theory and Modelling*, **2017**, 21, 49-61	1.5	11
49	Kinetics of bond formation in cross-linked gelatin gels. *Journal of Chemical Physics*, **2006**, 125, 174903	3.9	11
48	Scaling properties of the damage cloud in the 3D Ising model. *Journal of Physics A*, **1990**, 23, L265-L271		11
47	Different triggering mechanisms for solar flares and coronal mass ejections. *Astronomy and Astrophysics*, **2008**, 488, L29-L32	5.1	11
46	Comparison of branching models for seismicity and likelihood maximization through simulated annealing. *Journal of Geophysical Research*, **2011**, 116,		10

45	Time-energy correlations in solar flare occurrence. *Astronomy and Astrophysics*, **2010**, 511, L2	5.1	10
44	Complex dynamics in gelling systems. *European Physical Journal E*, **2002**, 9, 277-82	1.5	10
43	Predicting brain evoked response to external stimuli from temporal correlations of spontaneous activity. *Physical Review Research*, **2020**, 2,	3.9	10
42	Statistical properties and universality in earthquake and solar flare occurrence. *European Physical Journal B*, **2008**, 64, 551-555	1.2	9
41	Elastic properties at the sol-gel transition. *Europhysics Letters*, **1999**, 46, 288-294	1.6	9
40	Dynamical phase transition of spin glasses in a magnetic field. *Journal of Physics A*, **1989**, 22, 4659-4664		9
39	Critical Bursts in Filtration. *Physical Review Letters*, **2018**, 120, 034503	7.4	8
38	Controlled Viscosity in Dense Granular Materials. *Physical Review Letters*, **2018**, 120, 138001	7.4	8
37	Magnitude correlations in the Olami-Feder-Christensen model. *Europhysics Letters*, **2013**, 102, 59002	1.6	8
36	Correlations and Omori law in spamming. *Europhysics Letters*, **2008**, 84, 28004	1.6	8
35	Time-dependent critical properties of Ising models by damage spreading. *Physica A: Statistical Mechanics and Its Applications*, **1993**, 196, 188-208	3.3	8
34	Pattern recognition with neuronal avalanche dynamics. *Physical Review E*, **2019**, 99, 010302	2.4	7
33	Modeling the topology of protein interaction networks. *Physical Review E*, **2011**, 84, 016112	2.4	7
32	Spatial features of synaptic adaptation affecting learning performance. *Scientific Reports*, **2017**, 7, 11016	4.9	6
31	Rattler-induced aging dynamics in jammed granular systems. *Soft Matter*, **2017**, 13, 9132-9137	3.6	6
30	Interarrival times of message propagation on directed networks. *Physical Review E*, **2011**, 84, 026112	2.4	6
29	TIME, SPACE AND MAGNITUDE CORRELATIONS IN EARTHQUAKE OCCURRENCE. *International Journal of Modern Physics B*, **2009**, 23, 5583-5596	1.1	6
28	On-off intermittency in mean-field earthquake model. *Europhysics Letters*, **2006**, 76, 979-985	1.6	6

27	Temporal organization of ongoing brain activity. *European Physical Journal: Special Topics*, **2014**, 223, 2119-2130	2.3	5
26	GRANULAR FAILURE: THE ORIGIN OF EARTHQUAKES?. *International Journal of Modern Physics B*, **2009**, 23, 5374-5382	1.1	5
25	Three cooperative mechanisms required for recovery after brain damage. *Scientific Reports*, **2019**, 9, 15858	4.9	4
24	Non-monotonic dependence of the friction coefficient on heterogeneous stiffness. *Scientific Reports*, **2014**, 4, 6772	4.9	4
23	The Role of Interstitial Impurities in the Frictional Instability of Seismic Fault Models. *Tribology Letters*, **2012**, 48, 89-94	2.8	4
22	DYNAMICS AND STRONG SIZE EFFECTS OF A BOOTSTRAP PERCOLATION PROBLEM. *International Journal of Modern Physics C*, **1996**, 07, 739-744	1.1	4
21	Induced and endogenous acoustic oscillations in granular faults. *Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences*, **2018**, 377,	3	4
20	THE GENERALIZED OMORI LAW: MAGNITUDE INCOMPLETENESS OR MAGNITUDE CLUSTERING. *International Journal of Modern Physics B*, **2009**, 23, 5597-5608	1.1	3
19	Re-entrant phase diagram and pH effects in cross-linked gelatin gels. *Journal of Chemical Physics*, **2008**, 129, 134902	3.9	3
18	Comment on "Information dimension in random-walk processes". *Physical Review Letters*, **1988**, 61, 2156	7.4	3
17	Regular versus irregular Laplacian growth: multifractal spectroscopy. *Journal of Physics A*, **1988**, 21, L15-L21		3
16	Role of inhibitory neurons in temporal correlations of critical and supercritical spontaneous activity. *Physica A: Statistical Mechanics and Its Applications*, **2021**, 565, 125555	3.3	3
15	Synchronized oscillations and acoustic fluidization in confined granular materials. *Physical Review E*, **2018**, 97, 010901	2.4	2
14	Gelation kinetics of crosslinked gelatin. *Polymer Composites*, **2013**, 34, 259-264	3	2
13	Neuronal avalanches and learning. *Journal of Physics: Conference Series*, **2011**, 297, 012001	0.3	2
12	Critical dynamics at the sol–gel transition. *Physica A: Statistical Mechanics and Its Applications*, **2002**, 304, 93-102	3.3	2
11	Modeling the sol-gel transition. *Computing in Science and Engineering*, **2003**, 5, 78-87	1.5	2
10	Role of anaxonic local neurons in the crossover to continuously varying exponents for avalanche activity. *Physical Review E*, **2021**, 103, 042402	2.4	2

9	Critical behaviour of the stochastic Wilson-Cowan model. *PLoS Computational Biology*, **2021**, 17, e1008884	3	2
8	Micromechanics and statistics of slipping events in a granular seismic fault model. *Journal of Physics: Conference Series*, **2011**, 319, 012001	0.3	1
7	Dynamic response limits of an elastic magnet. *Journal of Magnetism and Magnetic Materials*, **2005**, 290-291, 836-838	2.8	1
6	Fractal dimension of the red bonds in the Ising droplet. *Physica A: Statistical Mechanics and Its Applications*, **1991**, 173, 486-490	3.3	1
5	Long-range temporal correlations in the broadband resting state activity of the human brain revealed by neuronal avalanches. *Neurocomputing*, **2021**, 461, 657-666	5.4	1
4	Viscoelastic properties at the sol-gel transition. *Macromolecular Symposia*, **2001**, 171, 79-86	0.8	
3	The phase diagram of Ising spin glasses. *Journal of Magnetism and Magnetic Materials*, **1992**, 104-107, 1671-1672	2.8	
2	Scaling in Fracture. *NATO ASI Series Series B: Physics*, **1990**, 149-163		
1	Statistical Models for Fracture. *The IMA Volumes in Mathematics and Its Applications*, **1998**, 63-80	0.5	