Elena Agliari

List of Publications by Year in Descending Order

99 papers	1,627 citations	21 h-index	35 g-index
101 ext. papers	1,806 ext. citations	3.1 avg, IF	5.24 L-index

#	Paper	IF	Citations
99	The emergence of a concept in shallow neural networks.. *Neural Networks*, **2022**, 148, 232-253	9.1	1
98	Storing, learning and retrieving biased patterns. *Applied Mathematics and Computation*, **2022**, 415, 126716	4.7	1
97	Learning and Retrieval Operational Modes for Three-Layer Restricted Boltzmann Machines. *Journal of Statistical Physics*, **2021**, 185, 1	1.5	2
96	On the effective initialisation for restricted Boltzmann machines via duality with Hopfield model. *Neural Networks*, **2021**, 143, 314-326	9.1	5
95	Detecting cardiac pathologies via machine learning on heart-rate variability time series and related markers. *Scientific Reports*, **2020**, 10, 8845	4.9	17
94	Neural Networks with a Redundant Representation: Detecting the Undetectable. *Physical Review Letters*, **2020**, 124, 028301	7.4	10
93	A statistical inference approach to reconstruct intercellular interactions in cell migration experiments. *Science Advances*, **2020**, 6, eaay2103	14.3	3
92	Tolerance versus synaptic noise in dense associative memories. *European Physical Journal Plus*, **2020**, 135, 1	3.1	5
91	Boltzmann Machines as Generalized Hopfield Networks: A Review of Recent Results and Outlooks. *Entropy*, **2020**, 23,	2.8	7
90	The relativistic Hopfield model with correlated patterns. *Journal of Mathematical Physics*, **2020**, 61, 123301	1.2	2
89	Replica symmetry breaking in neural networks: a few steps toward rigorous results. *Journal of Physics A: Mathematical and Theoretical*, **2020**, 53, 415005	2	6
88	Machine learning and statistical physics: preface. *Journal of Physics A: Mathematical and Theoretical*, **2020**, 53, 500401	2	6
87	Generalized Guerra's interpolation schemes for dense associative neural networks. *Neural Networks*, **2020**, 128, 254-267	9.1	11
86	Analysis of temporal correlation in heart rate variability through maximum entropy principle in a minimal pairwise glassy model. *Scientific Reports*, **2020**, 10, 15353	4.9	0
85	Dreaming neural networks: rigorous results. *Journal of Statistical Mechanics: Theory and Experiment*, **2019**, 2019, 083503	1.9	6
84	Dreaming neural networks: Forgetting spurious memories and reinforcing pure ones. *Neural Networks*, **2019**, 112, 24-40	9.1	24
83	Free energies of Boltzmann machines: self-averaging, annealed and replica symmetric approximations in the thermodynamic limit. *Journal of Statistical Mechanics: Theory and Experiment*, **2019**, 2019, 033301	1.9	6

82	On the Marchenko–Pastur law in analog bipartite spin-glasses. *Journal of Physics A: Mathematical and Theoretical*, **2019**, 52, 254002	2	2
81	The relativistic Hopfield network: Rigorous results. *Journal of Mathematical Physics*, **2019**, 60, 033302	1.2	3
80	Exact results for the first-passage properties in a class of fractal networks. *Chaos*, **2019**, 29, 023105	3.3	11
79	First encounters on combs. *Physical Review E*, **2019**, 100, 062310	2.4	8
78	Modeling ozone uptake by urban and peri-urban forest: a case study in the Metropolitan City of Rome. *Environmental Science and Pollution Research*, **2018**, 25, 8190-8205	5.1	6
77	Non-convex Multi-species Hopfield Models. *Journal of Statistical Physics*, **2018**, 172, 1247-1269	1.5	12
76	Social interaction effects on immigrant integration. *Palgrave Communications*, **2018**, 4,	5.3	5
75	Complex Reaction Kinetics in Chemistry: A Unified Picture Suggested by Mechanics in Physics. *Complexity*, **2018**, 2018, 1-16	1.6	2
74	Organs on chip approach: a tool to evaluate cancer -immune cells interactions. *Scientific Reports*, **2017**, 7, 12737	4.9	54
73	Scaling laws for diffusion on (trans)fractal scale-free networks. *Chaos*, **2017**, 27, 083108	3.3	19
72	The exact Laplacian spectrum for the Dyson hierarchical network. *Scientific Reports*, **2017**, 7, 39962	4.9	16
71	Neural Networks Retrieving Boolean Patterns in a Sea of Gaussian Ones. *Journal of Statistical Physics*, **2017**, 168, 1085-1104	1.5	12
70	Phase Transition for the Maki–Thompson Rumour Model on a Small-World Network. *Journal of Statistical Physics*, **2017**, 169, 846-875	1.5	7
69	Retrieving infinite numbers of patterns in a spin-glass model of immune networks. *Europhysics Letters*, **2017**, 117, 28003	1.6	7
68	First-passage phenomena in hierarchical networks. *Physical Review E*, **2016**, 93, 022133	2.4	8
67	Two-particle problem in comblike structures. *Physical Review E*, **2016**, 93, 052111	2.4	14
66	Complete integrability of information processing by biochemical reactions. *Scientific Reports*, **2016**, 6, 36314	4.9	10
65	Metastable states in the hierarchical Dyson model drive parallel processing in the hierarchical Hopfield network. *Journal of Physics A: Mathematical and Theoretical*, **2015**, 48, 015001	2	11

64	Hierarchical neural networks perform both serial and parallel processing. *Neural Networks*, **2015**, 66, 22-35	9.1	15
63	Exact calculations of first-passage properties on the pseudofractal scale-free web. *Chaos*, **2015**, 25, 073118	3.3	25
62	Anergy in self-directed B lymphocytes: A statistical mechanics perspective. *Journal of Theoretical Biology*, **2015**, 375, 21-31	2.3	24
61	Topological properties of hierarchical networks. *Physical Review E*, **2015**, 91, 062807	2.4	8
60	Lévy flights with power-law absorption. *Physical Review E*, **2015**, 92, 042156	2.4	3
59	Notes on stochastic (bio)-logic gates: computing with allosteric cooperativity. *Scientific Reports*, **2015**, 5, 9415	4.9	16
58	Emerging Heterogeneities in Italian Customs and Comparison with Nearby Countries. *PLoS ONE*, **2015**, 10, e0144643	3.7	5
57	Hitting and trapping times on branched structures. *Physical Review E*, **2015**, 91, 052132	2.4	14
56	Optimization strategies with resource scarcity: From immunization of networks to the traveling salesman problem. *Modern Physics Letters B*, **2015**, 29, 1550180	1.6	21
55	Retrieval capabilities of hierarchical networks: from Dyson to Hopfield. *Physical Review Letters*, **2015**, 114, 028103	7.4	40
54	Cancer-driven dynamics of immune cells in a microfluidic environment. *Scientific Reports*, **2014**, 4, 6639	4.9	55
53	Slow encounters of particle pairs in branched structures. *Physical Review E*, **2014**, 89, 052147	2.4	17
52	Multitasking attractor networks with neuronal threshold noise. *Neural Networks*, **2014**, 49, 19-29	9.1	6
51	A stochastic approach for quantifying immigrant integration: the Spanish test case. *New Journal of Physics*, **2014**, 16, 103034	2.9	12
50	Ferromagnetic Models for Cooperative Behavior: Revisiting Universality in Complex Phenomena. *Springer INdAM Series*, **2014**, 73-86	0.4	
49	Some Thoughts on the Ontogenesis in B-Cell Immune Networks. *Springer Proceedings in Mathematics and Statistics*, **2014**, 71-79	0.2	
48	Excitations Transfer and Random Walks on Dynamic Contacts Networks. *NATO Science for Peace and Security Series C: Environmental Security*, **2014**, 199-213	0.3	
47	Parallel retrieval of correlated patterns: from Hopfield networks to Boltzmann machines. *Neural Networks*, **2013**, 38, 52-63	9.1	23

46	Immune networks: multitasking capabilities near saturation. *Journal of Physics A: Mathematical and Theoretical*, **2013**, 46, 415003	2	38
45	Parallel processing in immune networks. *Physical Review E*, **2013**, 87, 042701	2.4	9
44	Collective behaviours: from biochemical kinetics to electronic circuits. *Scientific Reports*, **2013**, 3, 3458	4.9	11
43	Application of a stochastic modeling to assess the evolution of tuberculous and non-tuberculous mycobacterial infection in patients treated with tumor necrosis factor inhibitors. *PLoS ONE*, **2013**, 8, e55017	3.7	12
42	A statistical mechanics approach to Granovetter theory. *Physica A: Statistical Mechanics and Its Applications*, **2012**, 391, 3017-3026	3.3	22
41	Organization and evolution of synthetic idiotypic networks. *Physical Review E*, **2012**, 85, 051909	2.4	9
40	Multitasking associative networks. *Physical Review Letters*, **2012**, 109, 268101	7.4	80
39	Mean-field cooperativity in chemical kinetics. *Theoretical Chemistry Accounts*, **2012**, 131, 1	1.9	13
38	The true reinforced random walk with bias. *New Journal of Physics*, **2012**, 14, 063027	2.9	6
37	Analogue neural networks on correlated random graphs. *Journal of Physics A: Mathematical and Theoretical*, **2012**, 45, 365001	2	1
36	Can persistent Epstein-Barr virus infection induce chronic fatigue syndrome as a Pavlov reflex of the immune response?. *Journal of Biological Dynamics*, **2012**, 6, 740-62	2.4	12
35	Notes on the p-spin glass studied via Hamilton-Jacobi and smooth-cavity techniques. *Journal of Mathematical Physics*, **2012**, 53, 063304	1.2	7
34	Exact calculations of first-passage quantities on recursive networks. *Physical Review E*, **2012**, 85, 026113	2.4	72
33	Notes on ferromagnetic diluted p-spin model. *Reports on Mathematical Physics*, **2011**, 68, 1-22	0.8	5
32	A Hebbian approach to complex-network generation. *Europhysics Letters*, **2011**, 94, 10002	1.6	32
31	A thermodynamic perspective of immune capabilities. *Journal of Theoretical Biology*, **2011**, 287, 48-63	2.3	32
30	Slow relaxation in microcanonical warming of a Ising lattice. *European Physical Journal B*, **2011**, 84, 317-322	1.2	2
29	Trapping of continuous-time quantum walks on Erdős-Rényi graphs. *Physica A: Statistical Mechanics and Its Applications*, **2011**, 390, 1853-1860	3.3	19

28	Equilibrium statistical mechanics on correlated random graphs. *Journal of Statistical Mechanics: Theory and Experiment*, **2011**, 2011, P02027	1.9	10
27	Percolation on correlated random networks. *Physical Review E*, **2011**, 84, 031120	2.4	17
26	Word-of-mouth and dynamical inhomogeneous markets: an efficiency measure and optimal sampling policies for the pre-launch stage. *IMA Journal of Management Mathematics*, **2010**, 21, 67-83	1.4	16
25	CONTINUOUS-TIME QUANTUM WALKS AND TRAPPING. *International Journal of Bifurcation and Chaos in Applied Sciences and Engineering*, **2010**, 20, 271-279	2	21
24	A statistical mechanics approach to autopoietic immune networks. *Journal of Statistical Mechanics: Theory and Experiment*, **2010**, 2010, P07004	1.9	24
23	Microscopic energy flows in disordered Ising spin systems. *Journal of Statistical Mechanics: Theory and Experiment*, **2010**, 2010, P10021	1.9	4
22	Metric characterization of cluster dynamics on the Sierpinski gasket. *Journal of Statistical Mechanics: Theory and Experiment*, **2010**, 2010, P09002	1.9	2
21	A two-populations Ising model on diluted random graphs. *Journal of Statistical Mechanics: Theory and Experiment*, **2010**, 2010, P07021	1.9	4
20	Effective target arrangement in a deterministic scale-free graph. *Physical Review E*, **2010**, 82, 011118	2.4	41
19	Quantum-walk approach to searching on fractal structures. *Physical Review A*, **2010**, 82,	2.6	61
18	A Diffusive Strategic Dynamics for Social Systems. *Journal of Statistical Physics*, **2010**, 139, 478-491	1.5	7
17	Stochastic dynamics for idiotypic immune networks. *Physica A: Statistical Mechanics and Its Applications*, **2010**, 389, 5903-5911	3.3	19
16	New perspectives in the equilibrium statistical mechanics approach to social and economic sciences **2010**, 137-174		3
15	Energy transport in an Ising disordered model. *Journal of Statistical Mechanics: Theory and Experiment*, **2009**, 2009, P07041	1.9	5
14	Random walks on deterministic scale-free networks: exact results. *Physical Review E*, **2009**, 80, 031125	2.4	77
13	Criticality in diluted ferromagnets. *Journal of Statistical Mechanics: Theory and Experiment*, **2008**, 2008, P10003	1.9	15
12	Exact mean first-passage time on the T-graph. *Physical Review E*, **2008**, 77, 011128	2.4	108
11	Dynamics of continuous-time quantum walks in restricted geometries. *Journal of Physics A: Mathematical and Theoretical*, **2008**, 41, 445301	2	36

10	Random walk on a population of random walkers. *Journal of Physics A: Mathematical and Theoretical* , **2008**, 41, 015001	2	3
9	Interacting random walkers and non-equilibrium fluctuations. *European Physical Journal B*, **2008**, 65, 257-264	1.2	3
8	Configurations and observables in an Ising model with heat flow. *European Physical Journal B*, **2007**, 60, 499-506	1.2	8
7	Autocatalytic reaction on low-dimensional substrates. *Theoretical Chemistry Accounts*, **2007**, 118, 855-862	2.9	19
6	Universal features of information spreading efficiency on d-dimensional lattices. *Physical Review E*, **2007**, 75, 021119	2.4	12
5	Efficiency of information spreading in a population of diffusing agents. *Physical Review E*, **2006**, 73, 046128	2.4	36
4	Fractal geometry of Ising magnetic patterns: signatures of criticality and diffusive dynamics. *European Physical Journal B*, **2006**, 49, 119-125	1.2	3
3	Diffusive thermal dynamics for the spin-S Ising ferromagnet. *European Physical Journal B*, **2005**, 46, 109-116	1.2	4
2	Random walks interacting with evolving energy landscapes. *European Physical Journal B*, **2005**, 48, 529-536	1.2	3
1	A transport equation approach for deep neural networks with quenched random weights. *Journal of Physics A: Mathematical and Theoretical*,	2	3