JosÃ© Fernando Fontanari

List of Publications by Year
in descending order

113 papers	1,496 citations	361413 20 h-index	414414 32 g-index
113 all docs	113 docs citations	113 times ranked	709 citing authors

#	Article	IF	Citations
1	Long-term scientific impact revisited. European Physical Journal Plus, 2022, 137, 1.	2.6	0
2	The paradox of productivity during quarantine: an agent-based simulation. European Physical Journal B, 2021, 94, 40.	1.5	14
3	A SIR epidemic model for citation dynamics. European Physical Journal Plus, 2021, 136, 1.	2.6	4
4	Wisdom of crowds: much ado about nothing. Journal of Statistical Mechanics: Theory and Experiment, 2021, 2021, 053402.	2.3	1
5	A stochastic model for the influence of social distancing on loneliness. Physica A: Statistical Mechanics and Its Applications, 2021, 584, 126367.	2.6	9
6	The surprising little effectiveness of cooperative algorithms in parallel problem solving. European Physical Journal B, 2020, 93, 1.	1.5	3
7	Comfort-driven mobility produces spatial fragmentation in Axelrodâ€™s model. Journal of Statistical Mechanics: Theory and Experiment, 2020, 2020, 033402.	2.3	2
8	Policies for allocation of information in task-oriented groups: elitism and egalitarianism outperform welfarism. European Physical Journal B, 2019, 92, 1.	1.5	4
9	Individual decision making in task-oriented groups. European Physical Journal B, 2019, 92, 1.	1.5	1
10	Mobility helps problem-solving systems to avoid groupthink. Physical Review E, 2019, 99, 032301.	2.1	8
11	Predictability of imitative learning trajectories. Journal of Statistical Mechanics: Theory and Experiment, 2019, 2019, 013501.	2.3	3
12	Agent-based models of collective intelligence. Physics of Life Reviews, 2019, 31, 320-331.	2.8	22
13	Influence of technological progress and renewability on the sustainability of ecosystem engineers populations. Mathematical Biosciences and Engineering, 2019, 16, 3450-3464.	1.9	3
14	Reputation blackboard systems. Cognitive Systems Research, 2018, 50, 29-35.	2.7	3
15	The Collapse of Ecosystem Engineer Populations. Mathematics, 2018, 6, 9.	2.2	5
16	Impact of centrality on cooperative processes. Physical Review E, 2017, 95, 022305.	2.1	12
17	Awareness improves problem-solving performance. Cognitive Systems Research, 2017, 45, 52-58.	2.7	7
18	The revival of the Baldwin effect. European Physical Journal B, 2017, 90, 1.	1.5	2

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19	The spatial dynamics of ecosystem engineers. Mathematical Biosciences, 2017, 292, 76-85.	1.9	9
20	Effect of group organization on the performance of cooperative processes. Ecological Complexity, 2017, 30, 47-56.	2.9	12
21	Effect of long-range interactions on the phase transition of Axelrod's model. Physical Review E, 2016, 94, 052149.	2.1	11
22	Influence of network topology on cooperative problem-solving systems. Theory in Biosciences, 2016, 135, 101-110.	1.4	18
23	When more of the same is better. Europhysics Letters, 2016, 113, 28009.	2.0	9
24	The nature of the continuous non-equilibrium phase transition of Axelrod's model. Europhysics Letters, 2015, 111, 58001.	2.0	5
25	Diffusion of innovations in Axelrodâ€™s model. Journal of Statistical Mechanics: Theory and Experiment, 2015, 2015, P11026.	2.3	6
26	Exploring NK fitness landscapes using imitative learning. European Physical Journal B, 2015, 88, 1.	1.5	12
27	Phenotypic plasticity, the Baldwin effect, and the speeding up of evolution: The computational roots of an illusion. Journal of Theoretical Biology, 2015, 371, 127-136.	1.7	17
28	The consensus in the two-feature two-state one-dimensional Axelrod model revisited. Journal of Statistical Mechanics: Theory and Experiment, 2015, 2015, P04006.	2.3	7
29	Solving a cryptarithmetic problem using a social learning heuristic. , 2014, , .		0
30	Nonlinear group survival in Kimuraâ€™s model for the evolution of altruism. Mathematical Biosciences, 2014, 249, 18-26.	1.9	9
31	Effect of Migration in a Diffusion Model for Template Coexistence in Protocells. Bulletin of Mathematical Biology, 2014, 76, 654-672.	1.9	9
32	Imitative Learning as a Connector of Collective Brains. PLoS ONE, 2014, 9, e110517.	2.5	25
33	Solvable model for template coexistence in protocells. Europhysics Letters, 2013, 101, 38006.	2.0	10
34	Reinforcement and inference in cross-situational word learning. Frontiers in Behavioral Neuroscience, 2013, 7, 163.	2.0	5
35	Effect of external fields in Axelrod's model of social dynamics. Physical Review E, 2012, 86, 031131.	2.1	6
36	Critical behavior in a cross-situational lexicon learning scenario. Europhysics Letters, 2012, 99, 60001.	2.0	4

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37	Mean-field analysis of the majority-vote model broken-ergodicity steady state. Journal of Statistical Mechanics: Theory and Experiment, 2012, 2012, P07003.	2.3	2
38	Minimal model of associative learning for cross-situational lexicon acquisition. Journal of Mathematical Psychology, 2012, 56, 396-403.	1.8	6
39	A structural model of emotions of cognitive dissonances. Neural Networks, 2012, 32, 57-64.	5.9	12
40	Instrumentalizing Cognitive Dissonance Emotions. Psychology, 2012, 03, 1018-1026.	0.5	16
41	Subjective Emotions vs. Verbalizable Emotions in Web Texts. International Journal of Psychology and Behavioral Sciences, 2012, 2, 173-184.	2.8	8
42	Emotions of cognitive dissonance. , 2011, , .		4
43	The media effect in Axelrod's model explained. Europhysics Letters, 2011, 96, 38004.	2.0	26
44	The performance of a linear learning algorithm for cross-situational vocabulary learning. , 2011, , .		0
45	Cross-situational and supervised learning in the emergence of communication. Interaction Studies, 2011, 12, 119-133.	0.6	9
46	A computational model of adults' performance in naming objects using cross-situational learning. , 2010, , .		1
47	The mass media destabilizes the cultural homogenous regime in Axelrod's model. Journal of Physics A: Mathematical and Theoretical, 2010, 43, 055003.	2.1	19
48	Social interaction as a heuristic for combinatorial optimization problems. Physical Review E, 2010, 82, 056118.	2.1	12
49	Statistics of opinion domains of the majority-vote model on a square lattice. Physical Review E, 2010, 82, 046103.	2.1	6
50	Evolutionary dynamics on rugged fitness landscapes: Exact dynamics and information theoretical aspects. Physical Review E, 2009, 80, 041903.	2.1	18
51	A cross-situational algorithm for learning a lexicon using Neural modeling fields. , 2009, , .		9
52	Then-site approximation for the triplet-creation model. Journal of Physics A: Mathematical and Theoretical, 2009, 42, 085004.	2.1	5
53	Cultureâ€“area relation in Axelrodâ€™s model for culture dissemination. Theory in Biosciences, 2009, 128, 205-210.	1.4	19
54	Cross-situational learning of objectâ€“word mapping using Neural Modeling Fields. Neural Networks, 2009, 22, 579-585.	5.9	54

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55	A quasispecies approach to the evolution of sexual replication in unicellular organisms. Theory in Biosciences, 2008, 127, 53-65.	1.4	6
56	A game theoretical approach to the evolution of structured communication codes. Theory in Biosciences, 2008, 127, 205-214.	1.4	39
57	Package models and the information crisis of prebiotic evolution. Journal of Theoretical Biology, 2008, 252, 326-337.	1.7	6
58	The information capacity of hypercycles. Journal of Theoretical Biology, 2008, 254, 804-806.	1.7	18
59	How language can help discrimination in the Neural Modelling Fields framework. Neural Networks, 2008, 21, 250-256.	5.9	49
60	Object perception in the neural modeling fields framework. , 2008, , .		1
61	Preservation of information in a prebiotic package model. Physical Review E, 2007, 75, 051909.	2.1	5
62	Model ecosystem with variable interspecies interactions. Journal of Physics A: Mathematical and Theoretical, 2007, 40, 8723-8738.	2.1	9
63	Evolving Compositionality in Evolutionary Language Games. IEEE Transactions on Evolutionary Computation, 2007, 11, 758-769.	10.0	46
64	A Modeling Field Theory approach to pursuit games. , 2007, , .		0
65	Language acquisition and category discrimination in the Modeling Field Theory framework. Neural Networks (IJCNN), International Joint Conference on, 2007, , .	0.0	2
66	How communication can improve differentiation in the Modeling Field Theory framework. , 2007, , .		0
67	Scaling Up of Action Repertoire in Linguistic Cognitive Agents. , 2007, , .		1
68	Integrating Language and Cognition: A Cognitive Robotics Approach. IEEE Computational Intelligence Magazine, 2007, 2, 65-70.	3.2	38
69	Language and Cognition Integration Through Modeling Field Theory: Category Formation for Symbol Grounding. Lecture Notes in Computer Science, 2006, , 376-385.	1.3	18
70	First-order transitions in a two-dimensional nonequilibrium replicator model. Physica A: Statistical Mechanics and Its Applications, 2006, 359, 478-494.	2.6	5
71	Revisiting the nonequilibrium phase transition of the triplet-creation model. European Physical Journal B, 2006, 51, 555-561.	1.5	14
72	Statistical analysis of discrimination games. European Physical Journal B, 2006, 54, 127-130.	1.5	5

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73	Coexistence and error propagation in pre-biotic vesicle models: A group selection approach. Journal of Theoretical Biology, 2006, 239, 247-256.	1.7	41
74	Controlling species richness in spin-glass model ecosystems. Physical Review E, 2006, 74, 051919.	2.1	1
75	Categorization and symbol grounding in a complex environment. , 2006, , .		8
76	Template coexistence in prebiotic vesicle models. European Physical Journal B, 2005, 47, 423-429.	1.5	9
77	The random replicator model at nonzero temperature. European Physical Journal B, 2005, 48, 557-565.	1.5	4
78	Model ecosystems with random nonlinear interspecies interactions. Physical Review E, 2004, 70, 061914.	2.1	6
79	Effect of selection on the topology of genealogical trees. Journal of Theoretical Biology, 2004, 226, 315-320.	1.7	20
80	Solvable null model for the distribution of word frequencies. Physical Review E, 2004, 70, 042901.	2.1	20
81	Spatial dynamics and the evolution of enzyme production. Origins of Life and Evolution of Biospheres, 2003, 33, 357-374.	1.9	4
82	Analytical solution of the evolution dynamics on a multiplicative-fitness landscape. Journal of Mathematical Biology, 2003, 47, 453-456.	1.9	10
83	Slow interaction dynamics in the spherical spin-glass model. Physica A: Statistical Mechanics and Its Applications, 2003, 329, 365-370.	2.6	1
84	Phase transition and landscape statistics of the number partitioning problem. Physical Review E, 2003, 67, 056701.	2.1	17
85	Mutation Accumulation in Growing Asexual Lineages. Physical Review Letters, 2003, 91, 218101.	7.8	19
86	Shapes of tree representations of spin-glass landscapes. Journal of Physics A, 2003, 36, 3671-3681.	1.6	13
87	Complementarity and Diversity in a Soluble Model Ecosystem. Physical Review Letters, 2002, 89, 148101.	7.8	27
88	Nonequilibrium phase transitions in a model for the origin of life. Physical Review E, 2002, 65, 021902.	2.1	20
89	Multifractal analysis of DNA walks and trails. Physical Review E, 2002, 66, 061906.	2.1	39
90	Evolution of Protein Synthesis in a Lattice Model of Replicators. Physical Review Letters, 2002, 89, 188101.	7.8	7

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91	Fractal geometry of spin-glass models. Journal of Physics A, 2002, 35, 1509-1516.	1.6	13
92	Genealogical process on a correlated fitness landscape. The Journal of Experimental Zoology, 2002, 294, 274-284.	1.4	13
93	Soluble Model for the Accumulation of Mutations in Asexual Populations. Physical Review Letters, 2001, 87, 238102.	7.8	23
94	On the structure of genealogical trees in the presence of selection. Physica A: Statistical Mechanics and Its Applications, 2000, 283, 11-16.	2.6	4
95	Landscape statistics of the low-autocorrelation binary string problem. Journal of Physics A, 2000, 33, 8635-8647.	1.6	23
96	Random Replicators with High-Order Interactions. Physical Review Letters, 2000, 85, 4984-4987.	7.8	28
97	Metastable states in short-rangedp-spin glasses. Journal of Physics A, 1999, 32, 8793-8802.	1.6	13
98	Stochastic group selection model for the evolution of altruism. Physica A: Statistical Mechanics and Its Applications, 1999, 268, 257-268.	2.6	4
99	Statistical mechanics analysis of the continuous number partitioning problem. Physica A: Statistical Mechanics and Its Applications, 1999, 269, 54-60.	2.6	9
100	Error threshold in finite populations. Physical Review E, 1998, 57, 7008-7013.	2.1	78
101	Finite-size scaling of the quasispecies model. Physical Review E, 1998, 58, 2664-2667.	2.1	37
102	Population genetics approach to the quasispecies model. Physical Review E, 1996, 54, 4048-4053.	2.1	25
103	Dilution in a linear neural network. Physical Review E, 1995, 51, 6219-6229.	2.1	2
104	Data compression and prediction in neural networks. Physica A: Statistical Mechanics and Its Applications, 1993, 200, 644-654.	2.6	9
105	Calculation of learning curves for inconsistent algorithms. Physical Review A, 1992, 45, 8874-8884.	2.5	29
106	Stochastic versus deterministic update in simulated annealing. Physics Letters, Section A: General, Atomic and Solid State Physics, 1990, 146, 204-208.	2.1	78
107	Potts model in a random field. Physical Review B, 1989, 39, 7132-7139.	3.2	1
108	Learning noisy patterns in a Hopfield network. Physical Review A, 1989, 40, 2806-2809.	2.5	15

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109	The spherical model as the limiting n-vector model in a random field. Physica A: Statistical Mechanics and Its Applications, 1988, 149, 341-357.	2.6	3
110	Information storage and retrieval in synchronous neural networks. Physical Review A, 1987, 36, 2475-2477.	2.5	44
111	The spherical-model limit in a random field. Journal of Statistical Physics, 1986, 45, 99-112.	1.2	6
112	Effects of trilinear symmetry breaking on the Potts-model transition of uniaxially stressedSrTiO3. Physical Review B, 1986, 33, 3530-3533.	3.2	7
113	Minimal models for text production and Zipf's law. , 0, , .		1