Jose A Cuesta

List of Publications by Year
in descending order

89 papers	3,888 citations	147801 31 h-index	133252 59 g-index
92 all docs	92 docs citations	92 times ranked	2093 citing authors

#	Article	IF	Citations
1	Evolutionary game theory: Temporal and spatial effects beyond replicator dynamics. Physics of Life Reviews, 2009, 6, 208-249.	2.8	613
2	Heterogeneous networks do not promote cooperation when humans play a Prisonerâ€™s Dilemma. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 12922-12926.	7.1	277
3	Social Experiments in the Mesoscale: Humans Playing a Spatial Prisoner's Dilemma. PLoS ONE, 2010, 5, e13749.	2.5	187
4	Effect of spatial structure on the evolution of cooperation. Physical Review E, 2009, 80, 046106.	2.1	168
5	Phase transitions in two-dimensional traffic-flow models. Physical Review E, 1993, 48, R4175-R4178.	2.1	162
6	Time Scales in Evolutionary Dynamics. Physical Review Letters, 2006, 97, 158701.	7.8	159
7	The turning point and end of an expanding epidemic cannot be precisely forecast. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 26190-26196.	7.1	117
8	Reputation drives cooperative behaviour and network formation in human groups. Scientific Reports, 2015, 5, 7843.	3.3	108
9	Altruism may arise from individual selection. Journal of Theoretical Biology, 2005, 235, 233-240.	1.7	100
10	Dimensional Crossover of the Fundamental-Measure Functional for Parallel Hard Cubes. Physical Review Letters, 1997, 78, 3681-3684.	7.8	93
11	A comparative analysis of spatial Prisoner's Dilemma experiments: Conditional cooperation and payoff irrelevance. Scientific Reports, 2014, 4, 4615.	3.3	93
12	Emergence and resilience of cooperation in the spatial prisoner's dilemma via a reward mechanism. Journal of Theoretical Biology, 2008, 250, 475-483.	1.7	86
13	Human behavior in Prisoner's Dilemma experiments suppresses network reciprocity. Scientific Reports, 2012, 2, 325.	3.3	82
14	Fluid Mixtures of Parallel Hard Cubes. Physical Review Letters, 1996, 76, 3742-3745.	7.8	80
15	Fundamental measure theory for mixtures of parallel hard cubes. I. General formalism. Journal of Chemical Physics, 1997, 107, 6379-6389.	3.0	69
16	Theoretical approach to two-dimensional traffic flow models. Physical Review E, 1995, 51, 175-187.	2.1	61
17	From genotypes to organisms: State-of-the-art and perspectives of a cornerstone in evolutionary dynamics. Physics of Life Reviews, 2021, 38, 55-106.	2.8	49
18	Three is a crowd in iterated prisoner's dilemmas: experimental evidence on reciprocal behavior. Scientific Reports, 2012, 2, 638.	3.3	48

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19	Gender Differences in Cooperation: Experimental Evidence on High School Students. PLoS ONE, 2013, 8, e83700.	2.5	48
20	Phase equilibria in the polydisperse Zwanzig model of hard rods. Journal of Chemical Physics, 2000, 113, 5817-5829.	3.0	44
21	The joker effect: Cooperation driven by destructive agents. Journal of Theoretical Biology, 2011, 279, 113-119.	1.7	44
22	Disentangling the effects of selection and loss bias on gene dynamics. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E5616-E5624.	7.1	44
23	On the networked architecture of genotype spaces and its critical effects on molecular evolution. Open Biology, 2018, 8, .	3.6	41
24	Enhancement by Polydispersity of the Biaxial Nematic Phase in a Mixture of Hard Rods and Plates. Physical Review Letters, 2002, 89, 185701.	7.8	40
25	Cognitive resource allocation determines the organization of personal networks. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 8316-8321.	7.1	37
26	Phase diagrams of Zwanzig models: The effect of polydispersity. Journal of Chemical Physics, 2003, 118, 10164-10173.	3.0	35
27	Phase behavior of hard-core lattice gases: A fundamental measure approach. Journal of Chemical Physics, 2003, 119, 10832-10843.	3.0	35
28	Symmetries shape the current in ratchets induced by a biharmonic driving force. Physical Review E, 2010, 81, 030102.	2.1	35
29	Fundamental measure theory for mixtures of parallel hard cubes. II. Phase behavior of the one-component fluid and of the binary mixture. Journal of Chemical Physics, 1999, 111, 317-327.	3.0	33
30	Evolutionary stability and resistance to cheating in an indirect reciprocity model based on reputation. Physical Review E, 2013, 87, 052810.	2.1	33
31	Density Functional Theory for General Hard-Core Lattice Gases. Physical Review Letters, 2004, 93, 130603.	7.8	32
32	Random versus deterministic two-dimensional traffic flow models. Physical Review E, 1995, 51, R835-R838.	2.1	30
33	Distribution of genotype network sizes in sequence-to-structure genotypeâ€“phenotype maps. Journal of the Royal Society Interface, 2017, 14, 20160976.	3.4	30
34	Optimal packing of polydisperse hard-sphere fluids. Journal of Chemical Physics, 1999, 110, 5318-5324.	3.0	28
35	Elusiveness of Fluid-Fluid Demixing in Additive Hard-Core Mixtures. Physical Review Letters, 2002, 89, 145701.	7.8	28
36	Statistical Mechanics of Ecosystem Assembly. Physical Review Letters, 2009, 103, 168101.	7.8	28

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37	Fundamental-measure density functional for mixtures of parallel hard cylinders. Physical Review E, 2008, 77, 051205.	2.1	25
38	Phase behavior of parallel hard cylinders. Journal of Chemical Physics, 2008, 128, 194901.	3.0	24
39	Phase diagram of a two-dimensional lattice gas model of a ramp system. Journal of Chemical Physics, 2009, 131, 124506.	3.0	24
40	Generosity Pays in the Presence of Direct Reciprocity: A Comprehensive Study of 2Ã—2 Repeated Games. PLoS ONE, 2012, 7, e35135.	2.5	24
41	Statistical theory of phenotype abundance distributions: A test through exact enumeration of genotype spaces. Europhysics Letters, 2018, 123, 28001.	2.0	24
42	Density functional theory for nearest-neighbor exclusion lattice gases in two and three dimensions. Physical Review E, 2003, 68, 066120.	2.1	23
43	Disentangling categorical relationships through a graph of co-occurrences. Physical Review E, 2011, 84, 046108.	2.1	23
44	Evolution on neutral networks accelerates the ticking rate of the molecular clock. Journal of the Royal Society Interface, 2015, 12, 20141010.	3.4	23
45	Local-Based Semantic Navigation on a Networked Representation of Information. PLoS ONE, 2012, 7, e43694.	2.5	23
46	toyLIFE: a computational framework to study the multi-level organisation of the genotype-phenotype map. Scientific Reports, 2014, 4, 7549.	3.3	22
47	The growth threshold conjecture: a theoretical framework for understanding T-cell tolerance. Royal Society Open Science, 2015, 2, 150016.	2.4	22
48	Adaptive multiscapes: an up-to-date metaphor to visualize molecular adaptation. Biology Direct, 2017, 12, 7.	4.6	22
49	Phase behavior of additive binary mixtures in the limit of infinite asymmetry. Physical Review E, 1998, 58, R4080-R4083.	2.1	21
50	On the coexistence of cooperators, defectors and conditional cooperators in the multiplayer iterated Prisoner's Dilemma. Journal of Theoretical Biology, 2012, 300, 299-308.	1.7	21
51	Enumerating secondary structures and structural moieties for circular RNAs. Journal of Theoretical Biology, 2017, 419, 375-382.	1.7	19
52	Adding levels of complexity enhances robustness and evolvability in a multilevel genotypeâ€“phenotype map. Journal of the Royal Society Interface, 2018, 15, 20170516.	3.4	19
53	Phase transition analogous to Bose-Einstein condensation in systems of noninteracting surfactant aggregates. Physical Review E, 2002, 65, 031406.	2.1	17
54	Struggle for Space: Viral Extinction through Competition for Cells. Physical Review Letters, 2011, 106, 028104.	7.8	17

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55	Populations of genetic circuits are unable to find the fittest solution in a multilevel genotypeâ€“phenotype map. Journal of the Royal Society Interface, 2020, 17, 20190843.	3.4	17
56	First-principles derivation of density-functional formalism for quenched-annealed systems. Physical Review E, 2006, 74, 041502.	2.1	16
57	Individual Strategy Update and Emergence of Cooperation in Social Networks. Journal of Mathematical Sociology, 2012, 36, 1-21.	1.2	16
58	Effective-liquid approach to the generalized Onsager theories of the isotropic-nematic transition of hard convex bodies. Physical Review A, 1991, 44, 5306-5309.	2.5	15
59	Cluster density functional theory for lattice models based on the theory of MÃ¶bius functions. Journal of Physics A, 2005, 38, 7461-7482.	1.6	15
60	Stability and robustness analysis of cooperation cycles driven by destructive agents in finite populations. Physical Review E, 2012, 86, 026105.	2.1	15
61	Species assembly in model ecosystems, I: Analysis of the population model and the invasion dynamics. Journal of Theoretical Biology, 2011, 269, 330-343.	1.7	13
62	Time-Shift Invariance Determines the Functional Shape of the Current in Dissipative Rocking Ratchets. Physical Review X, 2013, 3, .	8.9	13
63	Sheldon spectrum and the plankton paradox: two sides of the same coinâ€”a trait-based plankton size-spectrum model. Journal of Mathematical Biology, 2018, 76, 67-96.	1.9	13
64	A theorem on the absence of phase transitions in one-dimensional growth models with on-site periodic potentials. Journal of Physics A, 2002, 35, 2373-2377.	1.6	12
65	Parsimonious Scenario for the Emergence of Viroid-Like Replicons De Novo. Viruses, 2019, 11, 425.	3.3	12
66	Apparent phase transitions in finite one-dimensional sine-Gordon lattices. Physical Review E, 2003, 67, 046108.	2.1	11
67	Severe Hindrance of Viral Infection Propagation in Spatially Extended Hosts. PLoS ONE, 2011, 6, e23358.	2.5	11
68	General approach for dealing with dynamical systems with spatiotemporal periodicities. Physical Review E, 2015, 91, 022905.	2.1	10
69	Beyond Dunbar circles: a continuous description of social relationships and resource allocation. Scientific Reports, 2022, 12, 2287.	3.3	10
70	Continuous phase transition in polydisperse hard-sphere mixture. Journal of Chemical Physics, 2001, 115, 963-969.	3.0	9
71	Large scale and information effects on cooperation in public good games. Scientific Reports, 2019, 9, 15023.	3.3	9
72	Isotropic-nematic transition ofD-dimensional hard convex bodies within the effective-liquid approach. Physical Review A, 1992, 45, 7395-7412.	2.5	8

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73	Species assembly in model ecosystems, II: Results of the assembly process. Journal of Theoretical Biology, 2011, 269, 344-355.	1.7	8
74	Spreading of intolerance under economic stress: Results from a reputation-based model. Physical Review E, 2014, 90, 022805.	2.1	8
75	A density functional approach to depletion interaction. Journal of Physics Condensed Matter, 1999, 11, 10107-10118.	1.8	7
76	Lattice density functional for colloid-polymer mixtures: Comparison of two fundamental measure theories. Physical Review E, 2005, 72, 031405.	2.1	7
77	Smectic and columnar ordering in length-polydisperse fluids of parallel hard cylinders. Molecular Physics, 2009, 107, 415-422.	1.7	7
78	Fundamental-measure density functional for the fluid of aligned hard hexagons: Further insights in fundamental measure theory. Physical Review E, 2007, 76, 011403.	2.1	6
79	Evolution of social relationships between first-year students at middle school: from cliques to circles. Scientific Reports, 2021, 11, 11694.	3.3	6
80	The shared reward dilemma on structured populations. Journal of Economic Interaction and Coordination, 2009, 4, 183-193.	0.7	5
81	Ratchet effect on a relativistic particle driven by external forces. Journal of Physics A: Mathematical and Theoretical, 2011, 44, 425205.	2.1	5
82	Huge progeny production during the transient of a quasi-species model of viral infection, reproduction and mutation. Mathematical and Computer Modelling, 2011, 54, 1676-1681.	2.0	4
83	Epistasis between cultural traits causes paradigm shifts in cultural evolution. Royal Society Open Science, 2020, 7, 191813.	2.4	3
84	Comment on â€œRatchet universality in the presence of thermal noiseâ€• Physical Review E, 2013, 88, 066101.	2.1	2
85	Phase behaviour of very asymmetric binary mixtures. Journal of Physics Condensed Matter, 2000, 12, A109-A114.	1.8	1
86	Fair linking mechanisms for resource allocation with correlated player types. Computing (Vienna/New) Tj ETQq0 0 0 rgBT /Overlock 10 T	4.8	1
87	Hierarchical clustering of bipartite data sets based on the statistical significance of coincidences. Physical Review E, 2020, 102, 042304.	2.1	0
88	Orientational freezing within the effective liquid approach. , 1993, , 209-219.		0
89	The long and winding road to understanding organismal construction. Physics of Life Reviews, 2022, 42, 19-24.	2.8	0