Bikas K Chakrabarti

List of Publications by Year
in descending order

134 papers	3,608 citations	270111 25 h-index	156644 58 g-index
153 all docs	153 docs citations	153 times ranked	2142 citing authors

#	Article	IF	Citations
1	Near universal values of social inequality indices in self-organized critical models. Physica A: Statistical Mechanics and Its Applications, 2022, 596, 127121.	1.2	12
2	Kinetic exchange income distribution models with saving propensities: inequality indices and self-organized poverty level. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2022, 380, 20210163.	1.6	4
3	Cooperative Dynamics in the Fiber Bundle Model. Frontiers in Physics, 2021, 8, .	1.0	8
4	Development of Econophysics: A Biased Account and Perspective from Kolkata. Entropy, 2021, 23, 254.	1.1	7
5	Social inequality analysis of fiber bundle model statistics and prediction of materials failure. Physical Review E, 2021, 104, 044308.	0.8	7
6	Phase transition in the Kolkata Paise Restaurant problem. Chaos, 2020, 30, 083116.	1.0	6
7	Flory-like statistics of fracture in the fiber bundle model as obtained via Kolmogorov dispersion for turbulence: A conjecture. Physical Review E, 2020, 102, 012113.	0.8	6
8	Hydrodynamic descriptions for surface roughness in fracture front propagation. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2019, 377, 20170387.	1.6	7
9	Introduction to critical phenomena through the fiber bundle model of fracture. European Journal of Physics, 2019, 40, 014004.	0.3	4
10	Statistical physics of fracture and earthquakes. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2019, 377, 20180202.	1.6	2
11	Possible ergodic-nonergodic regions in the quantum Sherrington-Kirkpatrick spin glass model and quantum annealing. Physical Review E, 2018, 97, 022146.	0.8	11
12	Econophysics of the Kolkata Restaurant Problem and Related Games. New Economic Windows, 2017, , .	1.0	7
13	Socio-economic inequality: Relationship between Gini and Kolkata indices. Physica A: Statistical Mechanics and Its Applications, 2017, 466, 583-595.	1.2	38
14	Story of the Developments in Statistical Physics of Fracture, Breakdown and Earthquake: A Personal Account. Reports in Advances of Physical Sciences, 2017, 01, 1750013.	0.6	2
15	Can economics afford not to become naturalÂscience?. European Physical Journal: Special Topics, 2016, 225, 3121-3125.	1.2	1
16	Inequality measures in kinetic exchange models of wealth distributions. Physica A: Statistical Mechanics and Its Applications, 2016, 451, 465-474.	1.2	20
17	Universality of Citation Distributions for Academic Institutions and Journals. PLoS ONE, 2016, 11, e0146762.	1.1	29
18	Classical-to-quantum crossover in the critical behavior of the transverse-field Sherrington-Kirkpatrick spin glass model. Physical Review E, 2015, 92, 042107.	0.8	14

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19	Social inequality: from data to statistical physics modeling. Journal of Physics: Conference Series, 2015, 638, 012014.	0.3	7
20	Statistical mechanics of competitive resource allocation using agent-based models. Physics Reports, 2015, 552, 1-25.	10.3	79
21	Zipf's law in city size from a resource utilization model. Physical Review E, 2014, 90, 042815.	0.8	22
22	Inequality in societies, academic institutions and science journals: Gini and <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si71.gif" display="inline" overflow="scroll"><mml:mi>k</mml:mi></mml:math>-indices. Physica A: Statistical Mechanics and Its Applications, 2014, 410, 30-34.	1.2	67
23	Kinetic Exchange Opinion Model: Solution in the Single Parameter Map Limit. New Economic Windows, 2014, , 131-143.	1.0	4
24	Quantum Ising Phases and Transitions in Transverse Ising Models. Lecture Notes in Physics, 2013, , .	0.3	171
25	Response of the two-dimensional kinetic Ising model under a stochastic field. Journal of Statistical Mechanics: Theory and Experiment, 2013, 2013, P11015.	0.9	4
26	Self-organized dynamics in local load-sharing fiber bundle models. Physical Review E, 2013, 88, 042112.	0.8	13
27	Equivalence of the train model of earthquake and boundary driven Edwards-Wilkinson interface. European Physical Journal B, 2013, 86, 1.	0.6	6
28	Crossover behaviors in one and two dimensional heterogeneous load sharing fiber bundle models. European Physical Journal B, 2013, 86, 1.	0.6	11
29	Dynamics of Quantum Ising Systems. Lecture Notes in Physics, 2013, , 179-223.	0.3	0
30	Noise-induced rupture process: Phase boundary and scaling of waiting time distribution. Physical Review E, 2013, 88, 012123.	0.8	9
31	Quantum Annealing. Lecture Notes in Physics, 2013, , 225-289.	0.3	6
32	Statistical physics of fracture, friction, and earthquakes. Reviews of Modern Physics, 2012, 84, 839-884.	16.4	168
33	Phase Transitions in Disordered Quantum Systems: Transverse Ising Models. Texts and Readings in Physical Sciences, 2012, , 49-84.	0.2	0
34	Phase transitions and non-equilibrium relaxation in kinetic models of opinion formation. Journal of Physics: Conference Series, 2011, 297, 012004.	0.3	26
35	Opinion Formation in the Kinetic Exchange Models. New Economic Windows, 2011, , 289-304.	1.0	1
36	Threshold-induced phase transition in kinetic exchange models. Physical Review E, 2011, 83, 061130.	0.8	11

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37	A fractal model of earthquake occurrence: Theory, simulations and comparisons with the aftershock data. Journal of Physics: Conference Series, 2011, 319, 012004.	0.3	15
38	Optimization and Quantum Annealing. Texts and Readings in Physical Sciences, 2011, , 251-277.	0.2	1
39	A Zero-Temperature Quantum Monte Carlo Algorithm and Quantum Spin Glasses. Computing in Science and Engineering, 2010, 12, 64-72.	1.2	4
40	Quantum phase transition in a disordered long-range transverse Ising antiferromagnet. Physical Review E, 2010, 81, 021101.	0.8	7
41	Scaling theory of quantum breakdown in solids. Physical Review B, 2010, 81, .	1.1	1
42	Opinion formation in kinetic exchange models: Spontaneous symmetry-breaking transition. Physical Review E, 2010, 82, 056112.	0.8	78
43	Effect of fractal disorder on static friction in the Tomlinson model. Physical Review E, 2010, 82, 041124.	0.8	3
44	Failure processes in elastic fiber bundles. Reviews of Modern Physics, 2010, 82, 499-555.	16.4	283
45	Statistical Theories of Income and Wealth Distribution. Economics, 2010, 4, .	0.2	12
46	A novel quantum transition in a fully frustrated transverse Ising antiferromagnet. Journal of Physics: Conference Series, 2009, 143, 012013.	0.3	4
47	Microeconomics of the ideal gas like market models. Physica A: Statistical Mechanics and Its Applications, 2009, 388, 4151-4158.	1.2	57
48	Two-fractal overlap time series: Earthquakes and market crashes. Pramana - Journal of Physics, 2008, 71, 203-210.	0.9	8
49	Colloquium: Quantum annealing and analog quantum computation. Reviews of Modern Physics, 2008, 80, 1061-1081.	16.4	502
50	Reaching the ground state of a quantum spin glass using a zero-temperature quantum Monte Carlo method. Physical Review E, 2008, 78, 061121.	0.8	10
51	Neural network modeling. Progress in Brain Research, 2007, 168, 155-270.	0.9	4
52	Ideal-gas-like market models with savings: Quenched and annealed cases. Physica A: Statistical Mechanics and Its Applications, 2007, 382, 36-41.	1.2	22
53	A common mode of origin of power laws in models of market and earthquake. Physica A: Statistical Mechanics and Its Applications, 2007, 381, 377-382.	1.2	19
54	A fiber bundle model of traffic jams. Physica A: Statistical Mechanics and Its Applications, 2006, 372, 162-166.	1.2	17

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55	Infinite-range Ising ferromagnet in a time-dependent transverse magnetic field: Quench and ac dynamics near the quantum critical point. Physical Review B, 2006, 74, .	1.1	87
56	Comments on â€œWorrying Trends in Econophysicsâ€• Income Distribution Models. , 2006, , 244-253.		6
57	Master equation for a kinetic model of a trading market and its analytic solution. Physical Review E, 2005, 72, 026126.	0.8	80
58	Quantum annealing in a kinetically constrained system. Physical Review E, 2005, 72, 026701.	0.8	29
59	Crossover behavior in a mixed-mode fiber bundle model. Physical Review E, 2005, 71, 036149.	0.8	29
60	Ideal-Gas Like Markets: Effect of Savings. New Economic Windows, 2005, , 79-92.	1.0	3
61	Polymers in random media: An introduction. , 2005, , 1-7.		0
62	Pareto law in a kinetic model of market with random saving propensity. Physica A: Statistical Mechanics and Its Applications, 2004, 335, 155-163.	1.2	242
63	Competing field pulse induced dynamic transition in Ising Models. Phase Transitions, 2004, 77, 581-600.	0.6	13
64	Phase transition in fiber bundle models with recursive dynamics. Physical Review E, 2003, 67, 046122.	0.8	48
65	Fluctuation cumulant behavior for the field-pulse-induced magnetization-reversal transition in Ising models. Physical Review E, 2003, 67, 046113.	0.8	21
66	Failure due to fatigue in fiber bundles and solids. Physical Review E, 2003, 67, 046124.	0.8	27
67	FAILURE PROPERTIES OF FIBER BUNDLE MODELS. International Journal of Modern Physics B, 2003, 17, 5565-5581.	1.0	49
68	Money in Gas-Like Markets: Gibbs and Pareto Laws. Physica Scripta, 2003, T106, 36.	1.2	66
69	Magnitude Distribution of Earthquakes: Two Fractal Contact Area Distribution. Physica Scripta, 2003, T106, 77.	1.2	15
70	Dynamic transitions in pure Ising magnets under pulsed and oscillating fields. Computer Physics Communications, 2002, 147, 120-125.	3.0	5
71	Critical fatigue behaviour in brittle glasses. Bulletin of Materials Science, 2001, 24, 161-164.	0.8	4
72	A self-organising model of market with single commodity. Physica A: Statistical Mechanics and Its Applications, 2001, 297, 253-259.	1.2	16

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73	Precursors of catastrophe in the Bak-Tang-Wiesenfeld, Manna, and random-fiber-bundle models of failure. Physical Review E, 2001, 65, 016113.	0.8	52
74	Mean-field and Monte Carlo studies of the magnetization-reversal transition in the Ising model. Journal of Physics A, 2000, 33, 4249-4264.	1.6	8
75	Stick-slip statistics for two fractal surfaces: a model for earthquakes. Physica A: Statistical Mechanics and Its Applications, 1999, 270, 27-34.	1.2	44
76	Dynamic transitions and hysteresis. Reviews of Modern Physics, 1999, 71, 847-859.	16.4	409
77	Deterministic stochastic resonance in a piecewise linear chaotic map. Physical Review E, 1998, 58, 8009-8012.	0.8	39
78	Dynamic magnetization-reversal transition in the Ising model. Physical Review E, 1998, 58, 4277-4283.	0.8	18
79	Spin-reversal transition in Ising model under pulsed field. Physica A: Statistical Mechanics and Its Applications, 1997, 246, 510-518.	1.2	17
80	Response of random dielectric composites and earthquake models to pulses: prediction possibilities. Physica A: Statistical Mechanics and Its Applications, 1996, 224, 254-266.	1.2	18
81	Growth of breakdown susceptibility in random composites and the stick-slip model of earthquakes: Prediction of dielectric breakdown and other catastrophes. Physical Review E, 1996, 53, 140-147.	0.8	19
82	IMPROVED PERFORMANCE OF THE HOPFIELD AND LITTLE NEURAL NETWORK MODELS WITH TIME DELAYED DYNAMICS. International Journal of Modern Physics B, 1995, 09, 3025-3037.	1.0	3
83	Response of Ising systems to oscillating and pulsed fields: Hysteresis, ac, and pulse susceptibility. Physical Review B, 1995, 52, 6550-6568.	1.1	200
84	Study of the Response to Pulses and Possible Prediction of Catastrophes. Journal De Physique, I, 1995, 5, 153-158.	1.2	3
85	ISING SYSTEM IN OSCILLATING FIELD: HYSTERETIC RESPONSE. , 1995, , 107-148.		1
86	Magnetic hysteresis loops as Lissajous plots of relaxationally delayed response to periodic field variation. Physica A: Statistical Mechanics and Its Applications, 1994, 202, 467-481.	1.2	12
87	AC susceptibility and hysteresis in Ising magnets. Journal of Magnetism and Magnetic Materials, 1994, 136, L29-L32.	1.0	5
88	Monte Carlo study of hysteretic response and relaxation in Ising models. Physica A: Statistical Mechanics and Its Applications, 1993, 192, 471-485.	1.2	34
89	Opinion Dynamics, Minority Spreading and Heterogeneous Beliefs. , 0, , 367-391.		4
90	Global Terrorism versus Social Permeability to Underground Activities. , 0, , 393-416.		2

#	Article	IF	Citations
91	Income and wealth distribution data for different countries. , 0, , 7-34.		0
92	Major socioeconomic modelling. , 0, , 35-54.		0
93	Market exchanges and scattering process. , 0, , 55-113.		0
94	Analytic structure of the kinetic exchange market models. , 0, , 114-149.		0
95	Microeconomic foundation of the kinetic exchange models. , 0, , 150-167.		0
96	Dynamics: generation of income, inequality and development. , 0, , 168-192.		0
97	The Loschmidt Echo for the One-Dimensional XY Model. , 0, , 281-282.		0
98	Quantum Phase Transitions. , 0, , 3-31.		0
99	Information Theoretic Measures Close to a Quantum Critical Point. , 0, , 32-43.		0
100	Non-Equilibrium Dynamics across Quantum Critical Points. , 0, , 44-56.		0
101	Transverse Ising Models in Higher Dimensions. , 0, , 59-64.		0
102	Transverse Field Models in One Dimension. , 0, , 65-74.		0
103	Quantum Phase Transitions in Related Models. , 0, , 75-99.		0
104	Role of Quenched Disorder. , 0, , 100-111.		0
105	Related Models with Frustration. , 0, , 112-121.		0
106	Quantum Information Theoretic Measures: Transverse Field and Related Models. , 0, , 122-148.		0
107	Non-Equilibrium Dynamics Across Quantum Critical Points: Slow Quenching. , 0, , 151-173.		0
108	Further Studies on Non-Equilibrium Dynamics. , 0, , 174-193.		0

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109	Quenching and Quantum Information. , 0, , 194-206.		0
110	Some Recent Developments in Information and Dynamics. , 0, , 207-228.		0
111	Experimental Realizations of Transverse Field Ising Systems. , 0, , 231-244.		0
112	Adiabatic Quantum Computations and Transverse Field Models. , 0, , 247-264.		0
113	Derivation of a Matrix Product Hamiltonian. , 0, , 267-268.		0
114	Landauâ€“Zener Tunneling: Calculation of Non-Adiabatic Transition Probability. , 0, , 283-291.		0
115	A Note on the Theoretical Studies of Hysteresis. , 0, , 292-294.		0
116	A Thermodynamic Formulation of Economics. , 0, , 1-33.		7
117	A Thermodynamic Formulation of Social Science. , 0, , 279-309.		13
118	Computer Simulation of Language Competition by Physicists. , 0, , 311-337.		4
119	Social Opinion Dynamics. , 0, , 339-366.		9
120	How aâ€œHitâ€•is Born: The Emergence of Popularity from the Dynamics of Collective Choice. , 0, , 417-447.		15
121	Crowd Dynamics. , 0, , 449-472.		5
122	Complexities of Social Networks: A Physicist's Perspective. , 0, , 473-506.		5
123	Self-organization Principles in Supply Networks and Production Systems. , 0, , 535-559.		14
124	Zero-intelligence Models of Limit-order Markets. , 0, , 35-63.		2
125	Growth of Firms and Networks. , 0, , 99-129.		2
126	A Review of Empirical Studies and Models of Income Distributions in Society. , 0, , 131-159.		40

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127	Models of Wealth Distributionsâ€“ A Perspective. , 0, , 161-190.		6
128	The Contribution of Money-transfer Models to Economics. , 0, , 191-217.		2
129	Econophysics of Stock and Foreign Currency Exchange Markets. , 0, , 249-278.		5
130	Inequality Measures in Kinetic Exchange Models of Wealth Distributions. SSRN Electronic Journal, 0, , .	0.4	0
131	Emergence of Memory in Networks of Nonlinear Units: From Neurons to Plant Cells. , 0, , 507-533.		0
132	Can we Recognize an Innovation?: Perspective from an Evolving Network Model. , 0, , 561-591.		0
133	Understanding and Managing the Future Evolution of a Competitive Multi-agent Population. , 0, , 65-98.		1
134	Fluctuations in Foreign Exchange markets. , 0, , 219-247.		1