

Zoltan Nádai

List of Publications by Year in descending order

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100
papers

4,904
citations

304368

22
h-index

91712

69
g-index

100
all docs

100
docs citations

100
times ranked

4662
citing authors

#	ARTICLE	IF	CITATIONS
1	Wealth Distribution in Villages. Transition From Socialism to Capitalism in View of Exhaustive Wealth Data and a Master Equation Approach. <i>Frontiers in Physics</i> , 2022, 10, .	1.0	3
2	f-Gintropy: An Entropic Distance Ranking Based on the Gini Index. <i>Entropy</i> , 2022, 24, 407.	1.1	3
3	Synchronization patterns in rings of time-delayed Kuramoto oscillators. <i>Communications in Nonlinear Science and Numerical Simulation</i> , 2021, 93, 105505.	1.7	4
4	Transient Dynamics in the Random Growth and Reset Model. <i>Entropy</i> , 2021, 23, 306.	1.1	7
5	Wealth distribution in modern societies: Collected data and a master equation approach. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2021, 581, 126194.	1.2	7
6	Oscillations and collective behavior in convective flows. <i>Physics of Fluids</i> , 2021, 33, .	1.6	6
7	Gintropy: Gini Index Based Generalization of Entropy. <i>Entropy</i> , 2020, 22, 879.	1.1	17
8	Flickering candle flames and their collective behavior. <i>Scientific Reports</i> , 2020, 10, 21305.	1.6	11
9	Scaling in income inequalities and its dynamical origin. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2020, 549, 124491.	1.2	11
10	Cross-Correlations in the Brownian Motion of Colloidal Nanoparticles. <i>Studia Universitatis Babeş-Bolyai Physica</i> , 2020, 65, 27-34.	0.0	0
11	Scaling in the space-time of the Internet. <i>Scientific Reports</i> , 2019, 9, 9734.	1.6	2
12	Pattern selection in a ring of Kuramoto oscillators. <i>Communications in Nonlinear Science and Numerical Simulation</i> , 2019, 78, 104868.	1.7	10
13	Entropic Divergence and Entropy Related to Nonlinear Master Equations. <i>Entropy</i> , 2019, 21, 993.	1.1	11
14	The Space-time of Physics: a Kinetic Space. <i>Hungarian Studies Yearbook</i> , 2019, 1, 10-24.	0.2	0
15	Unidirectional random growth with resetting. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2018, 499, 335-361.	1.2	26
16	Universality in the coarse-grained fluctuations for a class of linear dynamical systems. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2018, 503, 215-220.	1.2	0
17	Commuting patterns: the flow and jump model and supporting data. <i>EPJ Data Science</i> , 2018, 7, .	1.5	10
18	Entropic Distance for Nonlinear Master Equation. <i>Universe</i> , 2018, 4, 10.	0.9	5

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19	Gambler's ruin problem on Erdős-Rényi graphs. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2017, 468, 147-157.	1.2	3
20	Equilibrium distributions in entropy driven balanced processes. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2017, 474, 355-362.	1.2	3
21	Cell-size distribution and scaling in a one-dimensional Kolmogorov-Johnson-Mehl-Avrami lattice model with continuous nucleation. <i>Physical Review E</i> , 2017, 96, 042145.	0.8	3
22	Dynamical stationarity as a result of sustained random growth. <i>Physical Review E</i> , 2017, 95, 032130.	0.8	9
23	Science and Facebook: The same popularity law!. <i>PLoS ONE</i> , 2017, 12, e0179656.	1.1	25
24	Time-scale effects on the gain-loss asymmetry in stock indices. <i>Physical Review E</i> , 2016, 94, 022311.	0.8	4
25	The advantage of inhomogeneity – Lessons from a noise driven linearized dynamical system. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2016, 445, 310-317.	1.2	2
26	Further We Travel the Faster We Go. <i>PLoS ONE</i> , 2016, 11, e0148913.	1.1	8
27	An improved radiation model and its applicability for understanding commuting patterns in Hungary. <i>Regional Statistics</i> , 2016, 6, 27-38.	0.4	13
28	A spring-block analogy for the dynamics of stock indexes. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2015, 427, 122-131.	1.2	8
29	Sync or anti-sync – dynamical pattern selection in coupled self-sustained oscillator systems. <i>Journal of Physics: Conference Series</i> , 2014, 510, 012009.	0.3	1
30	Kinetic roughening of a soft dewetting line under quenched disorder: A numerical study. <i>Physical Review E</i> , 2014, 90, 052404.	0.8	2
31	Order and disorder in coupled metronome systems. <i>European Physical Journal: Special Topics</i> , 2014, 223, 649-663.	1.2	1
32	The rhythm of coupled metronomes. <i>European Physical Journal B</i> , 2013, 86, 1.	0.6	12
33	Walkie-talkie measurements for the speed of radio waves in air. <i>Physics Education</i> , 2013, 48, 80-86.	0.3	1
34	Chaos on the conveyor belt. <i>Physical Review E</i> , 2013, 87, 042920.	0.8	9
35	The complex parameter space of a two-mode oscillator model. <i>Physica D: Nonlinear Phenomena</i> , 2013, 256-257, 43-50.	1.3	4
36	A kinetic Monte Carlo study for stripe-like magnetic domains in ferrimagnetic thin films. <i>Open Physics</i> , 2013, 11, .	0.8	1

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37	Viscous potential flow analysis of peripheral heavy ion collisions. <i>Physical Review C</i> , 2013, 87, .	1.1	25
38	Kuramoto-type phase transition with metronomes. <i>European Journal of Physics</i> , 2013, 34, 1451-1463.	0.3	9
39	Fragmentation of drying paint layers. , 2013, , .		1
40	Human Mobility in a Continuum Approach. <i>PLoS ONE</i> , 2013, 8, e60069.	1.1	67
41	Hierarchical Settlement Networks. <i>Regional Statistics</i> , 2013, 3, 30-40.	0.4	1
42	Fluctuations in hadronizing quark gluon plasma. <i>Physical Review C</i> , 2012, 85, .	1.1	11
43	OPTIMIZATION INDUCED COLLECTIVE BEHAVIOR IN A SYSTEM OF FLASHING OSCILLATORS. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 2012, 22, 1230002.	0.7	0
44	WINNING STRATEGIES IN CONGESTED TRAFFIC. <i>International Journal of Modern Physics C</i> , 2012, 23, 1250063.	0.8	1
45	The Boltzmann constant from a snifter. <i>European Journal of Physics</i> , 2012, 33, 455-465.	0.3	3
46	A seed-diffusion model for tropical tree diversity patterns. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2012, 391, 4798-4806.	1.2	3
47	Income distribution patterns from a complete social security database. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2012, 391, 5611-5619.	1.2	19
48	Earthquake model describes traffic jams caused by imperfect driving styles. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2012, 391, 5727-5738.	1.2	7
49	Kinetic Monte Carlo approach for triangular-shaped Pt islands on Pt(111) surfaces. <i>Physica Status Solidi (B): Basic Research</i> , 2012, 249, 1709-1716.	0.7	8
50	Spring-block approach for crack patterns in glass. <i>Open Physics</i> , 2012, 10, .	0.8	2
51	Synchronization of flashing electronic oscillators. , 2011, , .		0
52	Spring-Block Model Reveals Region-Like Structures. <i>PLoS ONE</i> , 2011, 6, e16518.	1.1	6
53	A Kinetic Monte Carlo Approach for Self-Diffusion of Pt Atom Clusters on a Pt(111) Surface. <i>Communications in Computational Physics</i> , 2011, 10, 920-939.	0.7	4
54	Spring-block approach for nanobristle patterns. <i>Chemical Physics Letters</i> , 2011, 511, 378-383.	1.2	7

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55	Spring-block model for a single-lane highway traffic. <i>Open Physics</i> , 2011, 9, 1002-1009.	0.8	6
56	Topology of the Erasmus student mobility network. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2011, 390, 2601-2610.	1.2	24
57	A spatially explicit model for tropical tree diversity patterns. <i>Journal of Theoretical Biology</i> , 2010, 265, 517-523.	0.8	15
58	Criticality and pattern formation in fracture by residual stresses. <i>Physical Review E</i> , 2010, 82, 046118.	0.8	9
59	Persistent collective trend in stock markets. <i>Physical Review E</i> , 2010, 82, 066113.	0.8	25
60	Periodicity enhancement of two-mode stochastic oscillators in a CNN type architecture. , 2010, , .		0
61	Nontrivial spontaneous synchronization. <i>Physical Review E</i> , 2009, 79, 056205.	0.8	4
62	Correlation clustering on networks. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2009, 42, 345003.	0.7	6
63	Stochastic optimization of spin-glasses on cellular neural/nonlinear network based processors. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2009, 388, 1024-1030.	1.2	2
64	Unexpected synchronization. <i>Journal of Physics: Conference Series</i> , 2009, 182, 012026.	0.3	2
65	Cellular Neural Networks for NP-Hard Optimization. <i>Eurasip Journal on Advances in Signal Processing</i> , 2009, 2009, .	1.0	5
66	Statistical physics on cellular neural network computers. <i>Physica D: Nonlinear Phenomena</i> , 2008, 237, 1226-1234.	1.3	7
67	Collective behavior of electronic fireflies. <i>European Physical Journal B</i> , 2008, 65, 271-277.	0.6	6
68	MOLECULAR DYNAMICS APPROACH TO CORRELATION CLUSTERING. <i>International Journal of Modern Physics C</i> , 2008, 19, 1349-1358.	0.8	2
69	Cellular neural networks for NP-hard optimization. , 2008, , .		4
70	Collective behavior of electronic fireflies. , 2008, 65, 271.		1
71	<title>Controlled deposition of photonic polystyrene-nanosphere films</title>. , 2007, , .		3
72	Wealth distribution and Pareto's law in the Hungarian medieval society. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2007, 380, 271-277.	1.2	25

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73	On the size distribution of Poisson Voronoi cells. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2007, 385, 518-526.	1.2	454
74	Disorder-driven phase transition in a spring-block type magnetization model. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2007, 361, 18-23.	0.9	5
75	Shake-induced order in nanosphere systems. <i>European Physical Journal E</i> , 2007, 23, 153-159.	0.7	11
76	Wealth distribution in modern and medieval societies. <i>European Physical Journal: Special Topics</i> , 2007, 143, 81-85.	1.2	3
77	Random Number Generator and Monte Carlo type Simulations on the CNN-UM. , 2006, , .		3
78	Phase transition in an optimal clusterization model. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2006, 362, 357-368.	1.2	11
79	Stochastic simulations on the cellular wave computers. <i>European Physical Journal B</i> , 2006, 51, 407-411.	0.6	10
80	PERSPECTIVES FOR MONTE CARLO SIMULATIONS ON THE CNN UNIVERSAL MACHINE. <i>International Journal of Modern Physics C</i> , 2006, 17, 909-922.	0.8	8
81	A family-network model for wealth distribution in societies. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2005, 353, 515-528.	1.2	47
82	Understanding self-assembled nanosphere patterns. <i>Chemical Physics Letters</i> , 2005, 408, 241-246.	1.2	38
83	Rheology of Concentrated Suspensions: A Lattice Model. , 2005, , 639-645.		0
84	A spring-block model for Barkhausen noise. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2005, 13, 1341-1352.	0.8	10
85	Synchronization of two-mode stochastic oscillators: a new model for rhythmic applause and much more. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2003, 321, 238-247.	1.2	22
86	Measuring preferential attachment in evolving networks. <i>Europhysics Letters</i> , 2003, 61, 567-572.	0.7	403
87	Flatness of the setting Sun. <i>American Journal of Physics</i> , 2003, 71, 379-385.	0.3	5
88	Spiral Cracks in Drying Precipitates. <i>Physical Review Letters</i> , 2002, 88, 095502.	2.9	78
89	Networks in life: scaling properties and eigenvalue spectra. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2002, 314, 25-34.	1.2	79
90	Evolution of the social network of scientific collaborations. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2002, 311, 590-614.	1.2	1,999

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91	Spiral cracks without twisting. <i>Nature</i> , 2001, 410, 166-166.	13.7	49
92	Collective Dynamics of Two-Mode Stochastic Oscillators. <i>Physical Review Letters</i> , 2001, 87, .	2.9	26
93	The sound of many hands clapping. <i>Nature</i> , 2000, 403, 849-850.	13.7	596
94	Computer simulation of the microstructure and rheology of semi-solid alloys under shear. <i>Acta Materialia</i> , 2000, 48, 3773-3782.	3.8	38
95	Physics of the rhythmic applause. <i>Physical Review E</i> , 2000, 61, 6987-6992.	0.8	196
96	Pattern Formation and Selection in Quasistatic Fracture. <i>Physical Review Letters</i> , 2000, 85, 662-665.	2.9	70
97	Reconsideration of continuum percolation of isotropically oriented sticks in three dimensions. <i>Physical Review E</i> , 1999, 59, 3717-3719.	0.8	89
98	On the circular hydraulic jump. <i>American Journal of Physics</i> , 1999, 67, 723-731.	0.3	42
99	The dripping faucet revisited. <i>Chaos</i> , 1996, 6, 59-62.	1.0	10
100	Stochastic resonance in Ising systems. <i>Physical Review E</i> , 1995, 51, 5315-5317.	0.8	40