

# Tamas S. BirÅ³

## List of Publications by Year in descending order

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151  
papers

3,561  
citations

136950

32  
h-index

161849

54  
g-index

155  
all docs

155  
docs citations

155  
times ranked

2947  
citing authors

#	ARTICLE	IF	CITATIONS
1	Colour rope model for extreme relativistic heavy ion collisions. Nuclear Physics B, 1984, 245, 449-468.	2.5	259
2	Parton equilibration in relativistic heavy ion collisions. Physical Review C, 1993, 48, 1275-1284.	2.9	226
3	Non-extensive approach to quark matter. European Physical Journal A, 2009, 40, 325.	2.5	141
4	ALCOR: a dynamical model for hadronization. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1995, 347, 6-12.	4.1	124
5	Power-Law Tails from Multiplicative Noise. Physical Review Letters, 2005, 94, 132302.	7.8	112
6	Quark-gluon plasma formation in heavy ion collisions and quarkochemistry. Nuclear Physics A, 1983, 395, 525-538.	1.5	105
7	A q-parameter bound for particle spectra based on black hole thermodynamics with Rényi entropy. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2013, 726, 861-865.	4.1	91
8	Zeroth law compatibility of nonadditive thermodynamics. Physical Review E, 2011, 83, 061147.	2.1	79
9	Quarkochemistry in relativistic heavy-ion collisions. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1982, 113, 6-10.	4.1	75
10	HAMILTONIAN DYNAMICS OF YANG-MILLS FIELDS ON A LATTICE. International Journal of Modern Physics C, 1994, 05, 113-149.	1.7	71
11	Color screening in relativistic heavy ion collisions. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1992, 283, 171-173.	4.1	67
12	First order and stable relativistic dissipative hydrodynamics. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2012, 709, 106-110.	4.1	65
13	Quark liberation and coalescence at CERN SPS. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2000, 472, 243-246.	4.1	61
14	Generalised Tsallis statistics in electron-positron collisions. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2011, 701, 111-116.	4.1	60
15	Nonextensive Boltzmann Equation and Hadronization. Physical Review Letters, 2005, 95, 162302.	7.8	58
16	Quark-gluon plasma connected to finite heat bath. European Physical Journal A, 2013, 49, 1.	2.5	58
17	Percolation in finite space: A picture of nuclear fragmentation?. Nuclear Physics A, 1986, 459, 692-710.	1.5	56
18	Dissipation and Fluctuation at the Chiral Phase Transition. Physical Review Letters, 1997, 79, 3138-3141.	7.8	56

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19	Relativistic hydrodynamics – causality and stability. European Physical Journal: Special Topics, 2008, 155, 201-212.	2.6	54
20	A chirally invariant fermionic field theory for nuclear matter. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1987, 185, 1-5.	4.1	52
21	Entropy and hadrochemical composition in heavy ion collision. Physical Review C, 1983, 27, 2695-2702.	2.9	51
22	Microscopic theory of photon production in proton-nucleus and nucleus-nucleus collisions. Nuclear Physics A, 1987, 475, 579-597.	1.5	51
23	Hadronization with a confining equation of state. Physical Review C, 1999, 59, 1574-1584.	2.9	50
24	$e+e\rightarrow$ Production in proton-neutron collisions. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1989, 221, 1-5.	4.1	49
25	Two generalizations of the Boltzmann equation. European Physical Journal B, 2006, 50, 3-6.	1.5	45
26	Systematic Analysis of the Non-Extensive Statistical Approach in High Energy Particle Collisions – Experiment vs. Theory. Entropy, 2017, 19, 88.	2.2	45
27	Microcanonical jet-fragmentation in proton–proton collisions at LHC energy. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2012, 718, 125-129.	4.1	39
28	Strangeness production with "massive" gluons. Physical Review D, 1990, 42, 3078-3087.	4.7	38
29	Extensive Rényi statistics from non-extensive entropy. Physics Letters, Section A: General, Atomic and Solid State Physics, 2005, 340, 375-387.	2.1	36
30	Statistical Power Law due to Reservoir Fluctuations and the Universal Thermostat Independence Principle. Entropy, 2014, 16, 6497-6514.	2.2	34
31	Magnetic screening in thermal Yang-Mills theories. Nuclear Physics A, 1993, 561, 477-500.	1.5	33
32	New entropy formula with fluctuating reservoir. Physica A: Statistical Mechanics and Its Applications, 2015, 417, 215-220.	2.6	32
33	Quark coalescence in the mid-rapidity region at RHIC. Journal of Physics G: Nuclear and Particle Physics, 2002, 28, 1561-1566.	3.6	30
34	Ideal gas provides -entropy. Physica A: Statistical Mechanics and Its Applications, 2013, 392, 3132-3139.	2.6	30
35	Generating new solutions for relativistic transverse flow at the softest point. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2000, 487, 133-139.	4.1	29
36	Non-Abelian bremsstrahlung and azimuthal asymmetries in high energy $p+p$ reactions. Physical Review D, 2014, 90, .	4.7	28

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37	Strange particle production in the hadrochemical model. Nuclear Physics A, 1982, 386, 617-623.	1.5	27
38	Lyapunov exponent and plasmon damping rate in non-Abelian gauge theories. Physical Review D, 1995, 52, 1260-1266.	4.7	27
39	Tsallis-thermometer: a QGP indicator for large and small collisional systems. Journal of Physics G: Nuclear and Particle Physics, 2020, 47, 105002.	3.6	27
40	Analytic solution for relativistic transverse flow at the softest point. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2000, 474, 21-26.	4.1	26
41	Abstract composition rule for relativistic kinetic energy in the thermodynamical limit. Europhysics Letters, 2008, 84, 56003.	2.0	26
42	Unidirectional random growth with resetting. Physica A: Statistical Mechanics and Its Applications, 2018, 499, 335-361.	2.6	26
43	Science and Facebook: The same popularity law!. PLoS ONE, 2017, 12, e0179656.	2.5	25
44	Almost exponential transverse spectra from power law spectra. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2004, 578, 78-84.	4.1	24
45	Glueballs amass at the RHIC and LHC! The early quarkless first-order phase transition at $T = 270$ MeV from pure Yang-Mills glue plasma to Hagedorn glueball states. Journal of Physics G: Nuclear and Particle Physics, 2016, 43, 015105.	3.6	22
46	Toward thermodynamic consistency of quasiparticle picture. Physics of Atomic Nuclei, 2003, 66, 982-996.	0.4	21
47	Microscopic origin of non-Gaussian distributions of financial returns. Physica A: Statistical Mechanics and Its Applications, 2008, 387, 1603-1612.	2.6	21
48	A new effective Lagrangian for nuclear matter. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1997, 391, 1-4.	4.1	20
49	Micromechanical Models for the Brownian Motion of Hair Cell Stereocilia. Journal of Theoretical Biology, 1998, 193, 623-630.	1.7	20
50	Hadronization of a quark-gluon plasma in the chromodielectric model. Physical Review C, 1999, 59, 1620-1636.	2.9	20
51	Strange hyperon and antihyperon production from quark and string-rope matter. Journal of Physics G: Nuclear and Particle Physics, 1999, 25, 321-330.	3.6	20
52	Rényi statistics in equilibrium statistical mechanics. Physics Letters, Section A: General, Atomic and Solid State Physics, 2010, 374, 1951-1957.	2.1	20
53	Non-extensive quantum statistics with particle-hole symmetry. Physica A: Statistical Mechanics and Its Applications, 2015, 428, 410-415.	2.6	20
54	Cooper-Frye formula and non-extensive coalescence at RHIC energy. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2010, 689, 14-17.	4.1	19

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55	The production of charm mesons from quark matter at CERN SPS and RHIC. Journal of Physics G: Nuclear and Particle Physics, 2001, 27, 703-706.	3.6	18
56	Limiting temperature from a parton gas with power-law tailed distribution. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2006, 632, 247-251.	4.1	18
57	Equilibration of two power-law tailed distributions in a parton cascade model. Physics Letters, Section A: General, Atomic and Solid State Physics, 2008, 372, 1174-1179.	2.1	18
58	Gintropy: Gini Index Based Generalization of Entropy. Entropy, 2020, 22, 879.	2.2	17
59	Statistical Power Law Tails in High-Energy Phenomena. European Physical Journal A, 2009, 40, 255.	2.5	16
60	Different non-extensive models for heavy-ion collisions. Physica A: Statistical Mechanics and Its Applications, 2018, 492, 2353-2360.	2.6	16
61	A transport theory of relativistic nucleon-nucleon collisions with confinement. Nuclear Physics A, 1995, 581, 598-624.	1.5	15
62	Entropy of expanding QCD matter. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2007, 650, 193-196.	4.1	15
63	Non-extensive statistics, relativistic kinetic theory and fluid dynamics. European Physical Journal A, 2012, 48, 1.	2.5	15
64	Application of the non-extensive statistical approach to high energy particle collisions. AIP Conference Proceedings, 2017, , .	0.4	14
65	Mass hierarchy and energy scaling of the Tsallis " Pareto parameters in hadron productions at RHIC and LHC energies. EPJ Web of Conferences, 2018, 171, 14008.	0.3	14
66	Hadron Spectra Parameters within the Non-Extensive Approach. Universe, 2019, 5, 122.	2.5	14
67	Under-saturation of quarks at early stages of relativistic nuclear collisions: The hot glue initial scenario and its observable signatures. Astronomische Nachrichten, 2015, 336, 744-748.	1.2	13
68	A quark transport theory to describe nucleon-nucleon collisions. Nuclear Physics A, 1993, 563, 584-604.	1.5	12
69	The dependence of strange hadron multiplicities on the speed of hadronization. Journal of Physics G: Nuclear and Particle Physics, 1997, 23, 1941-1946.	3.6	12
70	Chaotic Quantization of Classical Gauge Fields. Foundations of Physics Letters, 2001, 14, 471-485.	0.6	12
71	A non-conventional description of quark matter. Journal of Physics G: Nuclear and Particle Physics, 2005, 31, S759-S763.	3.6	12
72	QCD above $T_c$ and below $T_c$ . Hadrons, partons, and the continuum. Physical Review D, 2014, 90, .	4.7	12

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73	Hadronization within the non-extensive approach and the evolution of the parameters. European Physical Journal A, 2019, 55, 1.	2.5	12
74	Damping rate and Lyapunov exponent of a Higgs field at high temperature. Physical Review D, 1996, 54, 3465-3470.	4.7	11
75	Nonadditive thermostatics and thermodynamics. Journal of Physics: Conference Series, 2012, 394, 012002.	0.4	11
76	Entropic Divergence and Entropy Related to Nonlinear Master Equations. Entropy, 2019, 21, 993.	2.2	11
77	Scaling in income inequalities and its dynamical origin. Physica A: Statistical Mechanics and Its Applications, 2020, 549, 124491.	2.6	11
78	CONSERVING ALGORITHMS FOR REAL-TIME NONABELIAN LATTICE GAUGE THEORIES. International Journal of Modern Physics C, 1995, 06, 327-344.	1.7	10
79	Disoriented chiral condensate formation from a state with collective pion fields. Physical Review D, 1997, 55, 6900-6909.	4.7	10
80	Unruh gamma radiation at RHIC?. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2012, 708, 276-279.	4.1	10
81	A "soft + hard" model for heavy-ion collisions. Journal of Physics: Conference Series, 2017, 805, 012010.	0.4	10
82	Equation of state for distributed mass quark matter. Journal of Physics G: Nuclear and Particle Physics, 2006, 32, S205-S212.	3.6	9
83	ALCOR. European Physical Journal: Special Topics, 2008, 155, 1-12.	2.6	9
84	Hadronization line in stringy matter. Physical Review C, 2008, 78, .	2.9	9
85	Dynamical stationarity as a result of sustained random growth. Physical Review E, 2017, 95, 032130.	2.1	9
86	Parton equilibration at RHIC and LHC. Nuclear Physics A, 1994, 566, 543-546.	1.5	8
87	Power-law tailed spectra from equilibrium. Nuclear Physics A, 2006, 774, 845-848.	1.5	8
88	Comparative Study on the Uniform Energy Deposition Achievable via Optimized Plasmonic Nanoresonator Distributions. Plasmonics, 2022, 17, 775-787.	3.4	8
89	Dynamical multifragmentation of highly excited nuclear systems. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1985, 165, 256-261.	4.1	7
90	Particle production within a selfconsistent transport approach to heavy-ion collisions. Nuclear Physics A, 1989, 495, 91-102.	1.5	7

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91	Sea effects in the chiral quark soliton model. Nuclear Physics A, 1990, 513, 621-635.	1.5	7
92	A dynamical model of color confinement. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1996, 387, 685-690.	4.1	7
93	Faces of Quark Matter. Acta Physica Hungarica A Heavy Ion Physics, 2003, 17, 205-217.	0.4	7
94	Lattice gauge theory with fluctuating temperature. EPJ Web of Conferences, 2011, 13, 05004.	0.3	7
95	Nuclear and quark matter at high temperature. European Physical Journal A, 2017, 53, 1.	2.5	7
96	Black hole horizons can hide positive heat capacity. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2018, 782, 228-231.	4.1	7
97	Transient Dynamics in the Random Growth and Reset Model. Entropy, 2021, 23, 306.	2.2	7
98	Laser wake field collider. Physics Letters, Section A: General, Atomic and Solid State Physics, 2021, 396, 127245.	2.1	7
99	Wealth distribution in modern societies: Collected data and a master equation approach. Physica A: Statistical Mechanics and Its Applications, 2021, 581, 126194.	2.6	7
100	Hadrochemistry in relativistic mean fields. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1986, 167, 271-276.	4.1	6
101	Chaotic behavior of confining lattice Gauge field configurations. Acta Physica Hungarica A Heavy Ion Physics, 1998, 7, 235-244.	0.4	6
102	Variational approach to real-time evolution of Yang-Mills gauge fields on the lattice. Nuclear Physics A, 1994, 568, 727-744.	1.5	5
103	What Is the Temperature in Heavy Ion Collisions?. Acta Physica Hungarica A Heavy Ion Physics, 2004, 21, 85-94.	0.4	5
104	Illusory flow in radiation from accelerating charge. European Physical Journal A, 2014, 50, 1.	2.5	5
105	Elliptic flow due to radiation in heavy-ion collisions. European Physical Journal A, 2015, 51, 1.	2.5	5
106	Near and Far from Equilibrium Power-Law Statistics. Journal of Physics: Conference Series, 2017, 779, 012081.	0.4	5
107	Entropy production during hadronization of a quark-gluon plasma. European Physical Journal A, 2018, 54, 1.	2.5	5
108	Entropic Distance for Nonlinear Master Equation. Universe, 2018, 4, 10.	2.5	5

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109	Title is missing!. Acta Physica Polonica B, Proceedings Supplement, 2012, 5, 363.	0.1	5
110	Kinetic Model Evaluation of the Resilience of Plasmonic Nanoantennas for Laser-Induced Fusion. , 2022, 1, .		5
111	Chaos driven by soft-hard mode coupling in thermal Yang-Mills theory. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1995, 362, 29-33.	4.1	4
112	Chaotic Quantization: Maybe the Lord Plays Dice, After All?. Lecture Notes in Physics, 2004, , 164-179.	0.7	4
113	Equilibrium statistical mechanics for incomplete nonextensive statistics. Physics Letters, Section A: General, Atomic and Solid State Physics, 2011, 375, 372-378.	2.1	4
114	Title is missing!. Acta Physica Polonica B, 2012, 43, 811.	0.8	4
115	Initial-state bremsstrahlung versus final-state hydrodynamic sources of azimuthal harmonics in <math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.gif" overflow="scroll">p</math> <math>+</math> <math>A</math> at RHIC and LHC. Nuclear Physics A, 2014, 931, 943-948.	1.5	4
116	Thermodynamics and flow-frames for dissipative relativistic fluids. , 2014, , .		4
117	Splitting the Source Term for the Einstein Equation to Classical and Quantum Parts. Foundations of Physics, 2015, 45, 1465-1482.	1.3	4
118	Volume dependent extension of Kerr-Newman black hole thermodynamics. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2020, 803, 135344.	4.1	4
119	Asymptotic hadrochemistry. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1984, 143, 50-54.	4.1	3
120	Color correlations and confinement. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1989, 228, 16-20.	4.1	3
121	Topical issue on relativistic hydro- and thermodynamics. European Physical Journal A, 2012, 48, 1.	2.5	3
122	Non-Extensive Entropic Distance Based on Diffusion: Restrictions on Parameters in Entropy Formulae. Entropy, 2016, 18, 42.	2.2	3
123	Equilibrium distributions in entropy driven balanced processes. Physica A: Statistical Mechanics and Its Applications, 2017, 474, 355-362.	2.6	3
124	TSALLISâ€PARETO-LIKE DISTRIBUTIONS IN HADRON-HADRON COLLISIONS. , 2011, , .		3
125	Wealth Distribution in Villages. Transition From Socialism to Capitalism in View of Exhaustive Wealth Data and a Master Equation Approach. Frontiers in Physics, 2022, 10, .	2.1	3
126	f-Gintropy: An Entropic Distance Ranking Based on the Gini Index. Entropy, 2022, 24, 407.	2.2	3



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127	Variational QCD at finite chemical potential. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 1990, 245, 142-146.	4.1	2
128	Confinement and gaussian gluon fields. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 1992, 278, 15-18.	4.1	2
129	Chaos analyses in both phases of QED and QCD. <i>Nuclear Physics, Section B, Proceedings Supplements</i> , 2000, 86, 403-407.	0.4	2
130	Quasiparticles and Thermodynamical Consistency. <i>Acta Physica Hungarica A Heavy Ion Physics</i> , 2003, 18, 91-100.	0.4	2
131	Non-extensive equilibration in relativistic matter. <i>Open Physics</i> , 2009, 7, .	1.7	2
132	Pion Production Via Resonance Decay in a Non-extensive Quark-Gluon Medium with Non-additive Energy Composition Rule. <i>EPJ Web of Conferences</i> , 2011, 13, 05003.	0.3	2
133	Multiplicity Dependence in the Non-Extensive Hadronization Model Calculated by the HIJING++ Framework. <i>Universe</i> , 2019, 5, 134.	2.5	2
134	O(4) vacuum invariance and deconfinement. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 1989, 232, 10-14.	4.1	1
135	Quark Matter and Non-Extensive Thermodynamics. <i>Acta Physica Hungarica A Heavy Ion Physics</i> , 2005, 22, 223-229.	0.4	1
136	Towards a superstatistical SU(2) Yang-Mills EoS. <i>Physics of Particles and Nuclei Letters</i> , 2011, 8, 805-810.	0.4	1
137	Quarks, Flow and Temperature in Spectra. <i>Journal of Physics: Conference Series</i> , 2014, 509, 012027.	0.4	1
138	Topical Issue on Frontiers in Nuclear, Heavy Ion and Strong Field Physics. <i>European Physical Journal A</i> , 2018, 54, 1.	2.5	1
139	Fluctuation, Dissipation, and Non-Boltzmann Energy Distributions. <i>SpringerBriefs in Physics</i> , 2019, , 61-84.	0.7	1
140	Entropy of Artificial Intelligence. <i>Universe</i> , 2022, 8, 53.	2.5	1
141	Unified model of dilute and superdense finite nuclear systems. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 1984, 147, 10-16.	4.1	0
142	Dynamically generated abelian and nonabelian Higgs fields in QCD. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 1990, 235, 11-14.	4.1	0
143	Observables of lattice gauge theory in minkowski space. <i>Nuclear Physics, Section B, Proceedings Supplements</i> , 2003, 121, 307-311.	0.4	0
144	Strange quark matter theory. <i>Journal of Physics G: Nuclear and Particle Physics</i> , 2004, 30, S599-S612.	3.6	0

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145	How Low is the Thermodynamical Limit?. , 2004, , 569-576.		0
146	MONOPOLES IN REAL TIME FOR CLASSICAL U(1) GAUGE FIELD THEORY. , 2004, , .		0
147	Keldysh (Two-Time) Formalism. SpringerBriefs in Physics, 2019, , 35-50.	0.7	0
148	Maverick Views and Problems. SpringerBriefs in Physics, 2019, , 85-108.	0.7	0
149	Quantum Uncertainty and Unruh Temperature. SpringerBriefs in Physics, 2019, , 1-18.	0.7	0
150	Off-Shell Transport Dynamics. SpringerBriefs in Physics, 2019, , 19-34.	0.7	0
151	Hot gluon propagator. Acta Physica Hungarica A Heavy Ion Physics, 1995, 1, 33-41.	0.4	0