

# Sz Borsanyi

## List of Publications by Year in descending order

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Version: 2024-02-01

70  
papers

7,031  
citations

136950

32  
h-index

128289

60  
g-index

70  
all docs

70  
docs citations

70  
times ranked

3405  
citing authors

#	ARTICLE	IF	CITATIONS
1	Finite chemical potential equation of state for QCD from an alternative expansion scheme. EPJ Web of Conferences, 2022, 259, 10015.	0.3	0
2	Lattice simulations of the QCD chiral transition at real baryon density. Physical Review D, 2022, 105, .	4.7	10
3	Precision study of the continuum SU(3) Yang-Mills theory: How to use parallel tempering to improve on supercritical slowing down for first order phase transitions. Physical Review D, 2022, 105, .	4.7	8
4	Lattice simulations of the QCD chiral transition at real $\mu_B$ . SciPost Physics Proceedings, 2022, , .	0.4	0
5	Resummed lattice QCD equation of state at finite baryon density: Strangeness neutrality and beyond. Physical Review D, 2022, 105, .	4.7	10
6	Topological susceptibility of pure gauge theory using density of states. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2021, 815, 136148.	4.1	14
7	Leading hadronic contribution to the muon magnetic moment from lattice QCD. Nature, 2021, 593, 51-55.	27.8	458
8	Lattice QCD Equation of State at Finite Chemical Potential from an Alternative Expansion Scheme. Physical Review Letters, 2021, 126, 232001.	7.8	60
9	Corrections to the hadron resonance gas from lattice QCD and their effect on fluctuation-ratios at finite density. Physical Review D, 2021, 104, .	4.7	6
10	QCD Crossover at Finite Chemical Potential from Lattice Simulations. Physical Review Letters, 2020, 125, 052001.	7.8	139
11	Searching the QCD critical endpoint with lattice simulations. EPJ Web of Conferences, 2020, 235, 02004.	0.3	0
12	The QCD transition line from lattice simulations. Journal of Physics: Conference Series, 2020, 1602, 012011.	0.4	0
13	Off-diagonal correlators of conserved charges from lattice QCD and how to relate them to experiment. Physical Review D, 2020, 101, .	4.7	42
14	Cross-Correlators of Conserved Charges in QCD. Springer Proceedings in Physics, 2020, , 191-196.	0.2	0
15	Cross-correlations of conserved charges from the lattice. Nuclear Physics A, 2019, 982, 303-306.	1.5	0
16	Towards the equation of state at finite density from the lattice. Nuclear Physics A, 2019, 982, 223-226.	1.5	8
17	The QCD Phase Diagram from the Lattice. , 2019, , 75-88.		0
18	Phenomenology of Strange Resonances. , 2018, , 61-76.		0

#	ARTICLE	IF	CITATIONS
19	Lattice thermodynamics at finite chemical potential from analytical Continuation. Journal of Physics: Conference Series, 2018, 1070, 012002.	0.4	9
20	Higher order fluctuations and correlations of conserved charges from lattice QCD. Journal of High Energy Physics, 2018, 2018, 1.	4.7	114
21	High statistics lattice study of stress tensor correlators in pure $SU(3)$ gauge theory. Physical Review D, 2017, 96, 054004.	4.7	19
22	Hadronic Vacuum Polarization Contribution to the Anomalous Magnetic Moments of Leptons from First Principles. Physical Review Letters, 2018, 121, 022002.	7.8	116
23	Constraining the hadronic spectrum through QCD thermodynamics on the lattice. Physical Review D, 2017, 96, .	4.7	77
24	Lattice QCD on nonorientable manifolds. Physical Review D, 2017, 95, .	4.7	6
25	The QCD equation of state at finite density from analytical continuation. Nuclear Physics A, 2017, 967, 720-723.	1.5	72
26	Lattice QCD thermodynamics up to the perturbative regime. Nuclear Physics A, 2017, 967, 732-735.	1.5	1
27	Slope and curvature of the hadronic vacuum polarization at vanishing virtuality from lattice QCD. Physical Review D, 2017, 96, .	4.7	20
28	The QCD equation of state at finite density from analytical continuation. EPJ Web of Conferences, 2017, 137, 07008.	0.3	44
29	Frontiers of finite temperature lattice QCD. EPJ Web of Conferences, 2017, 137, 01006.	0.3	13
30	Calculation of the axion mass based on high-temperature lattice quantum chromodynamics. Nature, 2016, 539, 69-71.	27.8	467
31	QCD thermodynamics with continuum extrapolated Wilson fermions. II. Physical Review D, 2015, 92, .	4.7	24
32	Fluctuations and correlations in high temperature QCD. Physical Review D, 2015, 92, .	4.7	150
33	The QCD phase diagram from analytic continuation. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2015, 751, 559-564.	4.1	163
34	Static $Q\bar{Q}$ pair free energy and screening masses from correlators of Polyakov loops: continuum extrapolated lattice results at the QCD physical point. Journal of High Energy Physics, 2015, 2015, 1.	4.7	30
35	Ab initio calculation of the neutron-proton mass difference. Science, 2015, 347, 1452-1455.	12.6	263
36	Freeze-Out Parameters from Electric Charge and Baryon Number Fluctuations: Is There Consistency?. Physical Review Letters, 2014, 113, 052301.	7.8	132

#	ARTICLE	IF	CITATIONS
37	Freeze-out conditions from fluctuations of conserved charges. Nuclear Physics A, 2014, 931, 802-807.	1.5	3
38	Charmonium spectral functions from 2+1 flavour lattice QCD. Journal of High Energy Physics, 2014, 2014, 1.	4.7	39
39	Full result for the QCD equation of state with $2+1$ flavors. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2014, 730, 99-104.	4.1	753
40	Fluctuations of conserved charges on the lattice and in heavy ion collisions. Journal of Physics: Conference Series, 2014, 535, 012030.	0.4	3
41	Lattice QCD thermodynamics in the presence of the charm quark. Nuclear Physics A, 2013, 904-905, 869c-872c.	1.5	8
42	Freeze-Out Parameters: Lattice Meets Experiment. Physical Review Letters, 2013, 111, 062005.	7.8	149
43	Is There a Flavor Hierarchy in the Deconfinement Transition of QCD?. Physical Review Letters, 2013, 111, 202302.	7.8	143
44	SU(2) chiral perturbation theory low-energy constants from $2+1$ flavor staggered lattice simulations. Physical Review D, 2013, 88, .	4.7	42
45	Thermodynamics of the QCD transition from lattice. Nuclear Physics A, 2013, 904-905, 270c-277c.	1.5	34
46	Fluctuations of conserved charges at finite temperature from lattice QCD. Journal of Physics: Conference Series, 2013, 432, 012012.	0.4	1
47	QCD equation of state at nonzero chemical potential: continuum results with physical quark masses at order $1/4$ . Journal of High Energy Physics, 2012, 2012, 1.	4.7	211
48	QCD thermodynamics with continuum extrapolated Wilson fermions I. Journal of High Energy Physics, 2012, 2012, 1.	4.7	46
49	High-precision scale setting in lattice QCD. Journal of High Energy Physics, 2012, 2012, 1.	4.7	213
50	QCD thermodynamics with dynamical overlap fermions. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2012, 713, 342-346.	4.1	22
51	Precision SU(3) lattice thermodynamics for a large temperature range. Journal of High Energy Physics, 2012, 2012, 1.	4.7	178
52	Fluctuations of conserved charges at finite temperature from lattice QCD. Journal of High Energy Physics, 2012, 2012, 1.	4.7	295
53	Transition temperature and the equation of state from lattice QCD, Wuppertal-Budapest results. Journal of Physics: Conference Series, 2011, 316, 012020.	0.4	8
54	QCD thermodynamics on the lattice and in the Hadron Resonance Gas model. Journal of Physics: Conference Series, 2011, 336, 012019.	0.4	4

#	ARTICLE	IF	CITATIONS
55	Recent results on QCD thermodynamics: lattice QCD versus Hadron Resonance Gas model. Nuclear Physics A, 2011, 855, 253-256.	1.5	32
56	Correlations and fluctuations from lattice QCD. Journal of Physics G: Nuclear and Particle Physics, 2011, 38, 124060.	3.6	15
57	Transition temperature and the equation of state from lattice QCD, Wuppertalâ€“Budapest results. Journal of Physics G: Nuclear and Particle Physics, 2011, 38, 124101.	3.6	6
58	QCD equation of state from the lattice. , 2011, , .		1
59	Is there still any $T_c$ mystery in lattice QCD? Results with physical masses in the continuum limit III. Journal of High Energy Physics, 2010, 2010, 1.	4.7	659
60	The QCD equation of state with dynamical quarks. Journal of High Energy Physics, 2010, 2010, 1.	4.7	721
61	Renormalized nonequilibrium quantum field theory: Scalar fields. Physical Review D, 2009, 80, .	4.7	19
62	The QCD transition temperature: results with physical masses in the continuum limit II. Journal of High Energy Physics, 2009, 2009, 088-088.	4.7	503
63	Semiclassical decay of topological defects. Physical Review D, 2008, 77, .	4.7	20
64	Lattice simulations of real-time quantum fields. Physical Review D, 2007, 75, .	4.7	86
65	Prethermalization and the First 1 fm/c of a Heavy Ion Collision. Acta Physica Hungarica A Heavy Ion Physics, 2005, 22, 317-323.	0.4	1
66	Nonperturbative renormalization for 2PI effective action techniques. Annals of Physics, 2005, 320, 344-398.	2.8	139
67	Isotropization far from equilibrium. Nuclear Physics B, 2005, 727, 244-263.	2.5	24
68	Renormalized thermodynamics from the two-particle irreducible effective action. Physical Review D, 2005, 71, .	4.7	66
69	THERMAL FEATURES FAR FROM EQUILIBRIUM: PRETHERMALIZATION. , 2005, , .		0
70	Thermalization of fermionic quantum fields. Nuclear Physics B, 2003, 660, 51-80.	2.5	112