

Steffen Bass

List of Publications by Year in descending order

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147
papers

9,143
citations

71102

41
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38395

95
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152
all docs

152
docs citations

152
times ranked

5018
citing authors

#	ARTICLE	IF	CITATIONS
1	Parton energy loss in a hard-soft factorized approach. <i>Physical Review C</i> , 2022, 105, .	2.9	4
2	Effective viscosities in a hydrodynamically expanding boost-invariant QCD plasma. <i>Physical Review C</i> , 2020, 102, .	2.9	2
3	Traces of nonequilibrium effects, initial condition, bulk dynamics, and elementary collisions in the charm observables. <i>Physical Review C</i> , 2020, 101, .	2.9	6
4	Bayesian estimation of the specific shear and bulk viscosity of quark-gluon plasma. <i>Nature Physics</i> , 2019, 15, 1113-1117.	16.7	230
5	Estimating nucleon substructure properties in a unified model of p-Pb and Pb-Pb collisions. <i>Nuclear Physics A</i> , 2019, 982, 503-506.	1.5	4
6	Quarkonium production in heavy ion collisions: coupled Boltzmann transport equations. <i>Nuclear Physics A</i> , 2019, 982, 755-758.	1.5	12
7	Fluctuating fluid dynamics for the QGP in the LHC and BES era. <i>EPJ Web of Conferences</i> , 2018, 171, 16004.	0.3	11
8	A data-drive analysis for heavy quark diffusion coefficient. <i>EPJ Web of Conferences</i> , 2018, 171, 18001.	0.3	1
9	Baryon number diffusion with critical fluctuations. <i>Nuclear Physics A</i> , 2017, 967, 824-827.	1.5	5
10	A data-driven analysis of the heavy quark transport coefficient. <i>Nuclear Physics A</i> , 2017, 967, 668-671.	1.5	8
11	Characterization of the initial state and QGP medium from a combined Bayesian analysis of LHC data at 2.76 and 5.02 TeV. <i>Nuclear Physics A</i> , 2017, 967, 293-296.	1.5	11
12	Determination of Quark-Gluon-Plasma Parameters from a Global Bayesian Analysis. <i>Nuclear Physics A</i> , 2017, 967, 67-73.	1.5	22
13	Flow in small and large quark-gluon plasma droplets: the role of nucleon substructure. <i>Nuclear Physics A</i> , 2017, 967, 361-364.	1.5	6
14	Revealing the collision energy dependence of $\hat{\tau} / s$ in RHIC-BES Au+Au collisions using Bayesian statistics. <i>Nuclear Physics A</i> , 2017, 967, 784-787.	1.5	2
15	Suppression and Two-Particle Correlations of Heavy Mesons in Heavy-Ion Collisions. <i>Nuclear Physics A</i> , 2016, 956, 505-508.	1.5	1
16	The iEBE-VISHNU code package for relativistic heavy-ion collisions. <i>Computer Physics Communications</i> , 2016, 199, 61-85.	7.5	302
17	The influence of initial state fluctuations on heavy quark energy loss in relativistic heavy-ion collisions. <i>Journal of Physics G: Nuclear and Particle Physics</i> , 2015, 42, 125104.	3.6	11
18	Elliptic and triangular flow of heavy flavor in heavy-ion collisions. <i>Physical Review C</i> , 2015, 91, .	2.9	73

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19	Spectra and elliptic flow for identified hadrons in $Pb + Pb$ collisions. Physical Review C, 2014, 89, .	2.9	67
20	Heavy-flavor observables at RHIC and LHC. Nuclear Physics A, 2014, 931, 575-580.	1.5	9
21	Heavy flavor dynamics in QGP and hadron gas. Nuclear Physics A, 2014, 931, 569-574.	1.5	9
22	Center domains and their phenomenological consequences in ultrarelativistic heavy ion collisions. Nuclear Physics A, 2014, 931, 1120-1124.	1.5	0
23	Dynamical evolution, hadronization and angular de-correlation of heavy flavor in a hot and dense QCD medium. Nuclear Physics A, 2014, 932, 38-44.	1.5	7
24	Effect of quark gluon plasma on charm quark produced in relativistic heavy ion collision. Journal of Physics: Conference Series, 2014, 509, 012038.	0.4	0
25	Systematic Monte-Carlo studies of dijets at RHIC using the VNI/BMS Parton Cascade. Nuclear Physics A, 2013, 904-905, 759c-762c.	1.5	1
26	Collisional vs. Radiative Energy Loss of Heavy Quark in a Hot and Dense Nuclear Matter. Nuclear Physics A, 2013, 904-905, 653c-656c.	1.5	26
27	Center Domains and their Phenomenological Consequences. Physical Review Letters, 2013, 110, 202301.	7.8	22
28	Heavy quark energy loss and thermalization in hot and dense nuclear matter. Journal of Physics: Conference Series, 2013, 420, 012022.	0.4	4
29	Model and parameter dependence of heavy quark energy loss in a hot and dense medium. Journal of Physics G: Nuclear and Particle Physics, 2013, 40, 085103.	3.6	24
30	Heavy-quark dynamics and hadronization in ultrarelativistic heavy-ion collisions: Collisional versus radiative energy loss. Physical Review C, 2013, 88, .	2.9	173
31	Heavy quark energy loss and angular de-correlation in a quark-gluon plasma matter. Journal of Physics: Conference Series, 2013, 446, 012035.	0.4	3
32	High Energy-Density QCD Matter. Progress of Theoretical Physics Supplement, 2012, 193, 53-61.	0.1	0
33	A systematic study of the sensitivity of triangular flow to the initial state fluctuations in relativistic heavy-ion collisions. Journal of Physics G: Nuclear and Particle Physics, 2012, 39, 055102.	3.6	26
34	Triangular flow in relativistic heavy ion collisions in an event-by-event hybrid approach. , 2012, , .		0
35	Jet modification in a brick of QGP matter. , 2012, , .		4
36	Focus section on AdS/CFT applications to QCD matter. Journal of Physics G: Nuclear and Particle Physics, 2012, 39, 050301.	3.6	0

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37	Comparative visualization of ensembles using ensemble surface slicing. Proceedings of SPIE, 2012, 8294, .	0.8	12
38	Increasing the perceptual salience of relationships in parallel coordinate plots. Proceedings of SPIE, 2012, 8294, 82940T.	0.8	5
39	Exploring ensemble visualization. Proceedings of SPIE, 2012, 8294, .	0.8	18
40	Probing the QCD critical point with relativistic heavy-ion collisions. Open Physics, 2012, 10, .	1.7	5
41	Implementing the LPM effect in a parton cascade model. Nuclear Physics A, 2011, 862-863, 275-278.	1.5	5
42	Anomalous transport processes in turbulent non-Abelian plasmas. Nuclear Physics A, 2011, 854, 76-80.	1.5	7
43	What do we know about the viscosity of QCD matter?. Nuclear Physics A, 2011, 862-863, 174-179.	1.5	3
44	Elliptic flow in Au collisions at $\sqrt{s} = 200$ GeV. Nuclear Physics A, 2011, 862-863, 174-179.	2.9	109
45	Elliptic flow in Au collisions at $\sqrt{s} = 200$ GeV. Nuclear Physics A, 2011, 862-863, 174-179.	7.8	380
46	Thermalization of charm quarks in infinite and finite quark-gluon plasma matter. Physical Review C, 2011, 84, .	2.9	61
47	Viscous QCD matter in a hybrid hydrodynamic+Boltzmann approach. Physical Review C, 2011, 83, .	2.9	134
48	Hadron spectra and elliptic flow for Au collisions at $\sqrt{s} = 200$ GeV from viscous hydrodynamics coupled to a Boltzmann cascade. Physical Review C, 2011, 83, .	2.9	105
49	Longitudinal correlation of the triangular flow event plane in a hybrid approach with hadron and parton cascade initial conditions. Physical Review C, 2011, 84, .	2.9	33
50	Medium-modified jets and initial state fluctuations as sources of charge correlations measured at energies available at the BNL Relativistic Heavy Ion Collider (RHIC). Physical Review C, 2011, 83, .	2.9	17
51	Constraining the initial state granularity with bulk observables in Au+Au collisions at $\sqrt{s_{NN}} = 200$ GeV. Journal of Physics G: Nuclear and Particle Physics, 2011, 38, 045102.	3.6	45
52	Shear viscosity in a perturbative quark-gluon plasma. Journal of Physics G: Nuclear and Particle Physics, 2011, 38, 015004.	3.6	16
53	The QGP shear viscosity: elusive goal or just around the corner?. Journal of Physics G: Nuclear and Particle Physics, 2011, 38, 124045.	3.6	42
54	Transport theoretical description of collisional energy loss in infinite quark-gluon matter. Journal of Physics G: Nuclear and Particle Physics, 2010, 37, 105112.	3.6	6

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55	The freeze-out properties of hyperons in a microscopic transport model. Journal of Physics G: Nuclear and Particle Physics, 2010, 37, 045002.	3.6	1
56	Translation of collision geometry fluctuations into momentum anisotropies in relativistic heavy-ion collisions. Physical Review C, 2010, 82, .	2.9	170
57	Triangular flow in event-by-event ideal hydrodynamics in Au collisions Au collisions	2.9	182
58	Shear-Viscosity to Entropy-Density Ratio of a Relativistic Hadron Gas. Physical Review Letters, 2009, 102, 172302.	7.8	176
59	Systematic comparison of jet energy-loss schemes in a realistic hydrodynamic medium. Physical Review C, 2009, 79, .	2.9	158
60	Hadronization via recombination. Journal of Physics G: Nuclear and Particle Physics, 2009, 36, 064034.	3.6	2
61	Approaching the AdS/CFT bound? Nuclear Physics A, 2009, 830, 733c-736c.	1.5	3
62	Signals of the QCD Critical Point in Hydrodynamic Evolutions. Nuclear Physics A, 2009, 830, 291c-294c.	1.5	1
63	Extracting hadronic viscosity from microscopic transport models. European Physical Journal C, 2009, 62, 63-68.	3.9	6
64	Systematic comparison of jet energy-loss schemes in a 3D hydrodynamic medium. Journal of Physics G: Nuclear and Particle Physics, 2008, 35, 104064.	3.6	4
65	The 3D hydro+UrQMD model with the QCD critical point. Journal of Physics G: Nuclear and Particle Physics, 2008, 35, 104099.	3.6	5
66	Transverse Velocity Dependence of the Proton-Antiproton Ratio as a Signature of the QCD Critical Point. Physical Review Letters, 2008, 101, 122302.	7.8	34
67	MODELING OF HEAVY-ION COLLISIONS AT THE RELATIVISTIC HEAVY-ION COLLIDER. International Journal of Modern Physics E, 2007, 16, 729-741.	1.0	1
68	Radiative jet energy loss in a three-dimensional hydrodynamical medium and high-pT asymmetry of p_T	2.9	28
69	Jet quenching in a three-dimensional hydrodynamic medium. Physical Review C, 2007, 76, .	2.9	52
70	Longitudinal Broadening of Quenched Jets in Turbulent Color Fields. Physical Review Letters, 2007, 99, 042301.	7.8	72
71	Jet modification in three dimensional fluid dynamics at next-to-leading twist. Physical Review C, 2007, 76, .	2.9	37
72	Anomalous viscosity of an expanding quark-gluon plasma. Journal of Physics G: Nuclear and Particle Physics, 2007, 34, S839-S842.	3.6	9

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73	Hard and soft probeâ€“medium interactions in a 3D hydro+micro approach at RHIC. Journal of Physics G: Nuclear and Particle Physics, 2007, 34, S979-S983.	3.6	2
74	Space-time evolution of bulk QCD matter. Physical Review C, 2007, 75, .	2.9	245
75	Photon Production in the Parton Cascade Model. Nuclear Physics A, 2007, 783, 367-378.	1.5	4
76	Space-time evolution of bulk QCD matter at RHIC. European Physical Journal C, 2007, 49, 97-102.	3.9	3
77	Anomalous Transport Processes in Anisotropically Expanding Quark-Gluon Plasmas. Progress of Theoretical Physics, 2006, 116, 725-755.	2.0	79
78	Review of Parton Recombination Models. Journal of Physics: Conference Series, 2006, 50, 279-288.	0.4	6
79	3-D hydro + cascade model at RHIC. Nuclear Physics A, 2006, 774, 873-876.	1.5	24
80	Dynamics of the Landauâ€“Pomeranchukâ€“Migdal effect in Au+Au collisions at $\sqrt{s_{NN}} = 200$ GeV. Nuclear Physics A, 2006, 774, 873-876. altimg="si1.gif" overflow="scroll" xmlns:xocs="http://www.elsevier.com/xml/xocs/dtd" xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://www.elsevier.com/xml/ja/dtd" xmlns:ja="http://www.elsevier.com/xml/ja/dtd" xmlns:mml="http://www.w3.org/1998/Math/MathML" xmlns:tb="http://www.elsevier.com/xml/common/table/dtd" xmlns:sb="http://www.elsevier.com/xml/co	4.1	18
81	Correlations in the Parton Recombination Model. Nuclear Physics A, 2006, 774, 635-638.	1.5	2
82	Transport Theory for RHIC. AIP Conference Proceedings, 2006, , .	0.4	0
83	The flavours of the quarkâ€“gluon plasma. Journal of Physics G: Nuclear and Particle Physics, 2006, 32, S411-S419.	3.6	1
84	SQM 2006: theory summary and perspectives. Journal of Physics G: Nuclear and Particle Physics, 2006, 32, S15-S27.	3.6	2
85	Anomalous Viscosity of an Expanding Quark-Gluon Plasma. Physical Review Letters, 2006, 96, 252301.	7.8	118
86	Thermal recombination: Beyond the valence quark approximation. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2005, 618, 77-83.	4.1	29
87	Transverse Pressure in Relativistic Nuclear Collisions: Evidence for Partonic Interactions?. Acta Physica Hungarica A Heavy Ion Physics, 2005, 24, 181-188.	0.4	0
88	Hadronization at RHIC: Interplay of Recombination and Fragmentation. Acta Physica Hungarica A Heavy Ion Physics, 2005, 24, 227-233.	0.4	0
89	RHIC Physics with the Parton Cascade Model. Acta Physica Hungarica A Heavy Ion Physics, 2005, 24, 45-50.	0.4	3
90	Perturbative dynamics of strangeness production at RHIC. Journal of Physics G: Nuclear and Particle Physics, 2005, 31, S1005-S1010.	3.6	4

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91	Possible resolutions of the D-puzzle. <i>Physical Review C</i> , 2005, 71, .	2.9	23
92	Correlated Emission of Hadrons from Recombination of Correlated Partons. <i>Physical Review Letters</i> , 2005, 94, 122301.	7.8	52
93	What do we learn from strangeness at RHIC?. <i>Journal of Physics G: Nuclear and Particle Physics</i> , 2005, 31, S733-S740.	3.6	1
94	Recombination plus fragmentation model at RHIC: elliptic flow. <i>Journal of Physics G: Nuclear and Particle Physics</i> , 2005, 31, S429-S435.	3.6	6
95	Strangeness production at RHIC in the perturbative regime. <i>Journal of Physics G: Nuclear and Particle Physics</i> , 2004, 30, L7-L15.	3.6	3
96	Charge fluctuation observables at RHIC. <i>Journal of Physics G: Nuclear and Particle Physics</i> , 2004, 30, S243-S249.	3.6	1
97	RHIC physics with the parton cascade model. <i>Journal of Physics G: Nuclear and Particle Physics</i> , 2004, 30, S1283-S1286.	3.6	12
98	Hadronization in heavy-ion collisions: recombination or fragmentation?. <i>Journal of Physics G: Nuclear and Particle Physics</i> , 2004, 30, S223-S228.	3.6	21
99	Strangeness dynamics and transverse pressure in relativistic nucleus-nucleus collisions. <i>Physical Review C</i> , 2004, 69, .	2.9	152
100	Photon Interferometry of Au+Au Collisions at the BNL Relativistic Heavy-Ion Collider. <i>Physical Review Letters</i> , 2004, 93, 162301.	7.8	25
101	Elliptic flow of resonances in relativistic heavy ion collisions: Probing final state interactions and the structure of resonances. <i>Physical Review C</i> , 2004, 69, .	2.9	42
102	Elliptic flow of multi-strange particles: fragmentation, recombination and hydrodynamics. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2004, 583, 73-78.	4.1	49
103	Particle correlations at RHIC – Scrutiny of a puzzle. <i>Nuclear Physics A</i> , 2003, 715, 801c-804c.	1.5	7
104	Parton rescattering and colour screening in Au+Au collisions at RHIC. <i>Nuclear Physics A</i> , 2003, 715, 813c-816c.	1.5	2
105	Parton rescattering and screening in Au+Au collisions at RHIC. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2003, 551, 277-283.	4.1	72
106	Hadronization in Heavy-Ion Collisions: Recombination and Fragmentation of Partons. <i>Physical Review Letters</i> , 2003, 90, 202303.	7.8	592
107	Transverse momentum distribution of net baryon number at RHIC. <i>Journal of Physics G: Nuclear and Particle Physics</i> , 2003, 29, L51-L58.	3.6	2
108	Overpopulation of ϕ in pp Collisions: A Way to Distinguish Statistical Hadronization from String Dynamics. <i>Physical Review Letters</i> , 2002, 88, 202501.	7.8	29

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109	Anti- Ω dominance in pp interactions at intermediate energies. Journal of Physics G: Nuclear and Particle Physics, 2002, 28, 1965-1969.	3.6	1
110	Strangeness production in microscopic transport models. Journal of Physics G: Nuclear and Particle Physics, 2002, 28, 1543-1551.	3.6	8
111	(Strange) meson interferometry at RHIC. Journal of Physics G: Nuclear and Particle Physics, 2002, 28, 1885-1893.	3.6	7
112	Current Status of Quark-Gluon Plasma Signals. Acta Physica Hungarica A Heavy Ion Physics, 2001, 14, 425-438.	0.4	1
113	Enhanced strange particle yields - signal of a phase of massless particles?. Journal of Physics G: Nuclear and Particle Physics, 2001, 27, 449-457.	3.6	21
114	Transition to resonance-rich matter in heavy-ion collisions at RHIC energies. Journal of Physics G: Nuclear and Particle Physics, 2001, 27, 421-426.	3.6	7
115	Probing hadronization with strangeness. Journal of Physics G: Nuclear and Particle Physics, 2001, 27, 635-644.	3.6	6
116	Pion Interferometry at RHIC: Probing a Thermalized Quark-Gluon Plasma?. Physical Review Letters, 2001, 86, 3981-3984.	7.8	101
117	Enhanced antiproton production in Pb(160 A GeV)+Pb reactions: evidence for quark gluon matter?. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2000, 485, 133-138.	4.1	18
118	Bremsstrahlung from a microscopic model of relativistic heavy ion collisions. Physical Review C, 2000, 63, .	2.9	4
119	Clocking Hadronization in Relativistic Heavy-Ion Collisions with Balance Functions. Physical Review Letters, 2000, 85, 2689-2692.	7.8	163
120	Dissociation of J/ψ by mesons: thermal versus nonequilibrium scenario. Journal of Physics G: Nuclear and Particle Physics, 1999, 25, 2351-2359.	3.6	11
121	Local thermal and chemical equilibration and the equation of state in relativistic heavy ion collisions. Journal of Physics G: Nuclear and Particle Physics, 1999, 25, 351-361.	3.6	52
122	Lattice gauge description of colliding nuclei. Journal of Physics G: Nuclear and Particle Physics, 1999, 25, L109-L115.	3.6	10
123	Signatures of quark-gluon plasma formation in high energy heavy-ion collisions: a critical review. Journal of Physics G: Nuclear and Particle Physics, 1999, 25, R1-R57.	3.6	218
124	K-factors in parton cascades at RHIC and SPS. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1999, 471, 108-112.	4.1	6
125	Critical review of quark gluon plasma signatures. Progress in Particle and Nuclear Physics, 1999, 42, 279-293.	14.4	29
126	Reaction dynamics in Pb + Pb at the CERN/SPS: From partonic degrees of freedom to freeze-out. Progress in Particle and Nuclear Physics, 1999, 42, 313-322.	14.4	22

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127	Strangeness enhancement in heavy ion collisions – evidence for quark-gluon matter?. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1999, 471, 89-96.	4.1	69
128	Relativistic hadron-hadron collisions in the ultra-relativistic quantum molecular dynamics model. Journal of Physics G: Nuclear and Particle Physics, 1999, 25, 1859-1896.	3.6	1,287
129	Microscopic models for ultrarelativistic heavy ion collisions. Progress in Particle and Nuclear Physics, 1998, 41, 255-369.	14.4	1,575
130	Intermediate mass dileptons from secondary Drell-Yan processes. Nuclear Physics A, 1998, 638, 507c-510c.	1.5	3
131	Equation of state, spectra, and composition of hot and dense infinite hadronic matter in a microscopic transport model. Physical Review C, 1998, 58, 1727-1733.	2.9	91
132	Intermediate mass excess of dilepton production in heavy ion collisions at relativistic energies. Physical Review C, 1998, 58, 447-456.	2.9	73
133	Nonthermal direct photons in Pb+Pb at 160A GeV from microscopic transport theory. Physical Review C, 1998, 57, 3271-3275.	2.9	13
134	Are We Close to an Equilibrated Quark-Gluon Plasma? Nonequilibrium Analysis of Particle Production in Ultrarelativistic Heavy Ion Collisions. Physical Review Letters, 1998, 81, 4092-4095.	7.8	33
135	Search for the production of strangelets in quark matter using particle correlations. Journal of Physics G: Nuclear and Particle Physics, 1997, 23, 2095-2105.	3.6	15
136	Microscopic calculations of stopping, flow and electromagnetic radiation from 160AMeV to 160AGeV. Nuclear Physics A, 1996, 610, 116-123.	1.5	34
137	Neural networks for impact parameter determination. Physical Review C, 1996, 53, 2358-2363.	2.9	41
138	Nucleon and baryon densities in heavy ion collisions at 1 GeV/nucleon. Zeitschrift für Physik A, 1995, 351, 359-360.	0.9	1
139	Transverse energy dependence of neutron squeeze-out in relativistic heavy ion collisions. Zeitschrift für Physik A, 1995, 352, 171-174.	0.9	8
140	Disappearance of flow. Physical Review C, 1995, 51, 3320-3325.	2.9	66
141	π -N correlations probe the nuclear equation of state in relativistic heavy-ion collisions. Physical Review C, 1995, 51, R12-R16.	2.9	9
142	Azimuthal correlations of pions in relativistic heavy-ion collisions at 1 GeV/nucleon. Physical Review C, 1995, 51, 3343-3356.	2.9	112
143	Neural networks for impact parameter determination. Journal of Physics G: Nuclear and Particle Physics, 1994, 20, L21-L26.	3.6	28
144	High- p_T pions as probes of the dense phase of relativistic heavy ion collisions. Physical Review C, 1994, 50, 2167-2172.	2.9	42

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145	Probing $\hat{\rho}$ resonance production in Au+Au collisions at 1 GeV/nucleon. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1994, 335, 289-294.	4.1	32
146	Is collective pion flow anticorrelated to nucleon flow?. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1993, 302, 381-385.	4.1	52
147	Out-of-plane pion emission in relativistic heavy-ion collisions: Spectroscopy of $\hat{\rho}$ resonance matter. Physical Review Letters, 1993, 71, 1144-1147.	7.8	54