

Hannah Elfner

List of Publications by Year in descending order

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Version: 2024-02-01

122
papers

3,816
citations

117625

34
h-index

128289

60
g-index

123
all docs

123
docs citations

123
times ranked

3255
citing authors

#	ARTICLE	IF	CITATIONS
1	Fully integrated transport approach to heavy ion reactions with an intermediate hydrodynamic stage. Physical Review C, 2008, 78, . Triangular flow in event-by-event ideal hydrodynamics in Au collisions	2.9	309
2	at Au collisions	2.9	182
3	Translation of collision geometry fluctuations into momentum anisotropies in relativistic heavy-ion collisions. Physical Review C, 2010, 82, .	2.9	170
4	Particle production and equilibrium properties within a new hadron transport approach for heavy-ion collisions. Physical Review C, 2016, 94, .	2.9	170
5	Vortical Fluid and Spin Correlations in High-Energy Heavy-Ion Collisions. Physical Review Letters, 2016, 117, 192301.	7.8	143
6	Initial state fluctuations and final state correlations in relativistic heavy-ion collisions. Journal of Physics G: Nuclear and Particle Physics, 2014, 41, 063102.	3.6	137
7	Particlization in hybrid models. European Physical Journal A, 2012, 48, 1.	2.5	136
8	Estimation of the shear viscosity at finite net-baryon density from data	2.9	129
9	An equation-of-state-meter of quantum chromodynamics transition from deep learning. Nature Communications, 2018, 9, 210.	12.8	118
10	Multisystem Bayesian constraints on the transport coefficients of QCD matter. Physical Review C, 2021, 103, .	2.9	118
11	Comparison of heavy-ion transport simulations: Collision integral in a box. Physical Review C, 2018, 97, .	2.9	91
12	Pseudorapidity distribution and decorrelation of anisotropic flow within the open-computing-language implementation CLVisc hydrodynamics. Physical Review C, 2018, 97, .	2.9	87
13	Phenomenological Constraints on the Transport Properties of QCD Matter with Data-Driven Model Averaging. Physical Review Letters, 2021, 126, 242301.	7.8	82
14	(3+1)-dimensional hydrodynamic expansion with a critical point from realistic initial conditions. Physical Review C, 2008, 77, .	2.9	74
15	Microscopic study of deuteron production in PbPb collisions at $\sqrt{s} = 2.76$ TeV via hydrodynamics and a hadronic afterburner. Physical Review C, 2019, 99, .	2.9	73
16	Directed and elliptic flow in heavy-ion collisions from Ebeam=90MeV/nucleon to Ec.m.=200GeV/nucleon. Physical Review C, 2006, 74, .	2.9	68
17	Examination of directed flow as a signal for a phase transition in relativistic nuclear collisions. Physical Review C, 2014, 89, .	2.9	67
18	Hydrodynamics with a chiral hadronic equation of state including quark degrees of freedom. Physical Review C, 2010, 81, .	2.9	61

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19	Decorrelation of anisotropic flow along the longitudinal direction. European Physical Journal A, 2016, 52, 1.	2.5	60
20	Comparison of heavy-ion transport simulations: Collision integral with pions and ρ resonances in a box. Physical Review C, 2019, 100, .	2.9	60
21	Shear viscosity of a hadron gas and influence of resonance lifetimes on relaxation time. Physical Review C, 2018, 97, .	2.9	58
22	Transport model comparison studies of intermediate-energy heavy-ion collisions. Progress in Particle and Nuclear Physics, 2022, 125, 103962.	14.4	55
23	Determining the jet transport coefficient q from inclusive hadron suppression measurements using Bayesian parameter estimation. Physical Review C, 2021, 104, .	2.9	51
24	The BEST framework for the search for the QCD critical point and the chiral magnetic effect. Nuclear Physics A, 2022, 1017, 122343.	1.5	51
25	Evolution of elliptic and triangular flow as a function of N_{ch} in a hybrid model. Physical Review C, 2013, 88, .	2.9	46
26	Effects of a phase transition on HBT correlations in an integrated Boltzmann+hydrodynamics approach. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2009, 674, 111-116.	4.1	45
27	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
28	Eccentricity fluctuations in an integrated hybrid approach: Influence on elliptic flow. Physical Review C, 2010, 81, .	2.9	42
29	Event simulation based on three-fluid hydrodynamics for collisions at energies available at the Dubna Nuclotron-based Ion Collider Facility and at the Facility for Antiproton and Ion Research in Darmstadt. Physical Review C, 2016, 94, .	2.9	40
30	Symmetry energy investigation with pion production from Sn+Sn systems. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2021, 813, 136016.	4.1	40
31	Ideal hydrodynamics and elliptic flow at CERN Super Proton Synchrotron (SPS) energies: Importance of the initial conditions. Physical Review C, 2009, 79, .	2.9	39
32	Magnetic-field-induced squeezing effect at energies available at the BNL Relativistic Heavy Ion Collider and at the CERN Large Hadron Collider. Physical Review C, 2016, 93, .	2.9	38
33	Comparison of heavy-ion transport simulations: Mean-field dynamics in a box. Physical Review C, 2021, 104, .	2.9	38
34	Particle production via strings and baryon stopping within a hadronic transport approach. Journal of Physics G: Nuclear and Particle Physics, 2020, 47, 065101.	3.6	38
35	Charged-particle (pseudo-)rapidity distributions in $p+p$ and $Pb+Pb/Au+Au$ collisions from UrQMD calculations at energies available at the CERN Super Proton Synchrotron to the Large Hadron Collider. Physical Review C, 2009, 79, .	2.9	33
36	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

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37	Strangeness fluctuations and MEMO production at FAIR. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2009, 676, 126-131.	4.1	32
38	Dilepton production and resonance properties within a new hadronic transport approach in the context of the GSI-HADES experimental data. Physical Review C, 2018, 98, .	2.9	32
39	The $\sigma_{T\bar{T}}$ excitation function: freeze-out and equation of state dependence. Journal of Physics G: Nuclear and Particle Physics, 2009, 36, 055104.	3.6	31
40	Deviations of the energy-momentum tensor from equilibrium in the initial state for hydrodynamics from transport approaches. Physical Review C, 2016, 93, .	2.9	30
41	Identified particle spectra and anisotropic flow in an event-by-event hybrid approach in PbA+APb collisions at $\sqrt{s_{NN}} = 2.76$ TeV. Physical Review C, 2011, 84, .	2.9	26
42	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
43	Anisotropic flow in transport + hydrodynamics hybrid approaches. Journal of Physics G: Nuclear and Particle Physics, 2014, 41, 124005.	3.6	26
44	Deuteron production in relativistic heavy ion collisions via stochastic multiparticle reactions. Physical Review C, 2021, 104, .	2.9	26
45	Anisotropic flow at RHIC: how unique is the number-of-constituent-quark scaling?. Journal of Physics G: Nuclear and Particle Physics, 2006, 32, 1121-1129.	3.6	25
46	Classification of initial state granularity via 2D Fourier expansion. Journal of Physics G: Nuclear and Particle Physics, 2013, 40, 095103.	3.6	23
47	Influence of the neutron-skin effect on nuclear isobar collisions at energies available at the BNL Relativistic Heavy Ion Collider. Physical Review C, 2020, 101, .	2.9	23
48	Shape analysis of strongly interacting systems: the heavy ion case. New Journal of Physics, 2011, 13, 065006.	2.9	22
49	SMASH – A new hadronic transport approach. Nuclear Physics A, 2019, 982, 399-402.	1.5	22
50	Centrality and system size dependence of (multi-strange) hyperons at 40A and 158A GeV: A comparison between a binary collision model and a Boltzmann+hydrodynamic hybrid model. Physical Review C, 2009, 80, .	2.9	18
51	Exploring ensemble visualization. Proceedings of SPIE, 2012, 8294, .	0.8	18
52	Symmetric cumulants as a probe of the proton substructure at LHC energies. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2018, 778, 128-136.	4.1	18
53	How sensitive are di-leptons from \bar{D} -mesons to the high baryon density region?. Physical Review C, 2008, 78, .	2.9	17
54	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

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55	Initial state fluctuations and final state correlations: status and open questions. Physica Scripta, 2013, 87, 048001.	2.5	17
56	Benchmarking a nonequilibrium approach to photon emission in relativistic heavy-ion collisions. Physical Review D, 2019, 99, .	4.7	16
57	Strangeness production via resonances in heavy-ion collisions at energies available at the GSI Schwerionensynchrotron. Physical Review C, 2019, 99, .	2.9	15
58	Electrical conductivity and relaxation via colored noise in a hadronic gas. Physical Review D, 2019, 99, .	4.7	15
59	Correlated wounded hot spots in proton-proton interactions. Physical Review C, 2017, 95, .	2.9	14
60	Different realizations of Cooper-Frye sampling with conservation laws. Journal of Physics G: Nuclear and Particle Physics, 2018, 45, 015001.	3.6	14
61	Local and global \hat{b} polarization in a vortical fluid. Nuclear Physics A, 2017, 967, 772-775.	1.5	13
62	Comparative visualization of ensembles using ensemble surface slicing. Proceedings of SPIE, 2012, 8294, .	0.8	12
63	Three-fluid Hydrodynamics-based Event Simulator Extended by UrQMD final State interactions (THESEUS) for FAIR-NICA-SPSBES/RHIC energies. EPJ Web of Conferences, 2018, 182, 02056.	0.3	12
64	Elliptic flow in an integrated (3+1)d microscopic + macroscopic approach with fluctuating initial conditions. European Physical Journal C, 2009, 62, 31-36.	3.9	11
65	3+1 dimensional viscous hydrodynamics at high baryon densities. Journal of Physics: Conference Series, 2014, 503, 012040.	0.4	11
66	Systematic investigation of negative Cooper-Frye contributions in heavy ion collisions using coarse-grained molecular dynamics. Physical Review C, 2015, 91, .	2.9	11
67	Equilibration and freeze-out of an expanding gas in a transport approach in a Friedmann-Robertson-Walker metric. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2017, 770, 532-538.	4.1	11
68	Jet quenching in the hadron gas: An exploratory study. Physical Review C, 2020, 101, .	2.9	11
69	Collective flow at SIS energies within a hadronic transport approach: Influence of light nuclei formation and equation of state. Physical Review C, 2022, 105, .	2.9	11
70	Possibility of event shape selection in relativistic heavy ion collisions. Physical Review C, 2013, 88, .	2.9	9
71	Forced canonical thermalization in a hadronic transport approach at high density. Journal of Physics G: Nuclear and Particle Physics, 2017, 44, 034001.	3.6	9
72	Cross-conductivity: Novel transport coefficients to constrain the hadronic degrees of freedom of nuclear matter. Physical Review D, 2020, 101, .	4.7	9

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73	Inclusive and effective bulk viscosities in the hadron gas. Journal of Physics G: Nuclear and Particle Physics, 2021, 48, 015005.	3.6	8
74	Studying the energy dependence of elliptic and directed flow within a relativistic transport approach. European Physical Journal C, 2007, 49, 91-96.	3.9	7
75	Dilepton production with the SMASH model. Journal of Physics: Conference Series, 2016, 742, 012034.	0.4	7
76	Role of proton-antiproton regeneration in the late stages of heavy-ion collisions. Physical Review C, 2022, 105, .	2.9	7
77	Particle production in AgAg collisions at $\sqrt{s_{NN}} = 2.76$ GeV within a hadronic transport approach. Physical Review C, 2021, 103, .	2.9	7
78	Out-of-equilibrium photon production in the late stages of relativistic heavy-ion collisions. Physical Review C, 2022, 105, .	2.9	6
79	Increasing the perceptual salience of relationships in parallel coordinate plots. Proceedings of SPIE, 2012, 8294, 82940T.	0.8	5
80	Probing the QCD critical point with relativistic heavy-ion collisions. Open Physics, 2012, 10, .	1.7	5
81	Beam energy scan using a viscous hydro+cascade model. Journal of Physics: Conference Series, 2014, 509, 012067.	0.4	5
82	Influence of kinematic cuts on the net charge distribution. Nuclear Physics A, 2016, 956, 336-339.	1.5	5
83	Effects of EoS in viscous hydro+cascade model for the RHIC Beam Energy Scan. Nuclear Physics A, 2016, 956, 834-837.	1.5	5
84	Beam energy scan theory: Status and open questions. Nuclear Physics A, 2017, 967, 145-152.	1.5	5
85	Vorticity and \hat{b} polarization in event-by-event (3+1)D viscous hydrodynamics. Journal of Physics: Conference Series, 2017, 779, 012069.	0.4	5
86	Classify QCD phase transition with deep learning. Nuclear Physics A, 2019, 982, 867-870.	1.5	5
87	Centrality Dependence of Deuteron Production in PbPb Collisions at 2.76 TeV via Hydrodynamics and Hadronic Afterburner +. Proceedings (mdpi), 2019, 10, 6.	0.2	5
88	$\bar{\Lambda}$ -meson production in In-In collisions at $\sqrt{s_{NN}} = 2.76$ GeV. Physical Review Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2010, 687, 320-326.	4.1	4
89	Non-equilibrium dilepton production in hadronic transport approaches. Journal of Physics: Conference Series, 2017, 832, 012037.	0.4	4
90	Constraining resonance properties through kaon production in pion-nucleus collisions at low energies. Journal of Physics G: Nuclear and Particle Physics, 2021, 48, 025109.	3.6	4

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91	Elliptic flow and constituent quark scaling from hadron-string transport models. Journal of Physics G: Nuclear and Particle Physics, 2006, 32, S365-S371.	3.6	3
92	A transport calculation with an embedded (3+1)d hydrodynamic evolution: Elliptic flow as a function of transverse momentum at SPS energies. Nuclear Physics A, 2009, 830, 283c-286c.	1.5	3
93	Evolution of elliptic and triangular flow as a function of beam energy in a hybrid model. Journal of Physics: Conference Series, 2014, 503, 012025.	0.4	3
94	Longitudinal fluctuations and decorrelation of anisotropic flow. Nuclear Physics A, 2016, 956, 272-275.	1.5	3
95	The fastest-rotating fluid. Nature, 2017, 548, 34-35.	27.8	3
96	Systematic errors in transport calculations of shear viscosity using the Green-Kubo formalism. Journal of Physics: Conference Series, 2018, 1024, 012028.	0.4	3
97	Initial-state fluctuations at the RHIC and the LHC in event-by-event ideal hydrodynamics. Journal of Physics G: Nuclear and Particle Physics, 2011, 38, 124122.	3.6	2
98	Collision Dynamics. Lecture Notes in Physics, 2011, , 531-680.	0.7	2
99	Cooper-Frye Negative Contributions in a Coarse-Grained Transport Approach. Journal of Physics: Conference Series, 2015, 599, 012017.	0.4	2
100	Gluonic hot spots and spatial correlations inside the proton. Nuclear Physics A, 2017, 967, 924-927.	1.5	2
101	Identifying QCD Transition Using Deep Learning. EPJ Web of Conferences, 2018, 171, 16005.	0.3	2
102	Correlated gluonic hot spots meet symmetric cumulants data at LHC energies. Nuclear Physics A, 2019, 982, 463-466.	1.5	2
103	Radial and Elliptic Flow in High Energetic Nuclear Collisions. AIP Conference Proceedings, 2006, , .	0.4	1
104	Strangeness production at SPS energies in a (3+1)-dimensional Boltzmann+hydrodynamics approach. Journal of Physics G: Nuclear and Particle Physics, 2010, 37, 094038.	3.6	1
105	Strangeness production in hadronic models and recombination models. Journal of Physics G: Nuclear and Particle Physics, 2010, 37, 094010.	3.6	1
106	Multi-particle interactions within the UrQMD approach. EPJ Web of Conferences, 2011, 13, 06002.	0.3	1
107	3+1 dimensional viscous hydrodynamics at high baryon densities. Journal of Physics: Conference Series, 2015, 612, 012052.	0.4	1
108	Estimating Λ/s of QCD matter at high baryon densities. Journal of Physics: Conference Series, 2016, 668, 012063.	0.4	1

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109	Quantifying Initial State Fluctuations in Heavy Ion Collisions. Acta Physica Polonica B, Proceedings Supplement, 2013, 6, 797.	0.1	1
110	AN INTEGRATED HYDRO AND BOLTZMANN APPROACH TO HEAVY ION REACTIONS. International Journal of Modern Physics D, 2010, 19, 1651-1659.	2.1	0
111	HBT radii from the UrQMD transport approach at different energies. EPJ Web of Conferences, 2011, 13, 06003.	0.3	0
112	Triangular flow in relativistic heavy ion collisions in an event-by-event hybrid approach. , 2012, , .		0
113	Event-by-Event Observables and Fluctuations. Nuclear Physics A, 2013, 904-905, 278c-285c.	1.5	0
114	Hot Quarks 2012: Workshop for Young Scientists on the Physics of Ultrarelativistic Nucleus-Nucleus Collisions. Journal of Physics: Conference Series, 2013, 446, 011001.	0.4	0
115	What the collective flow excitation function can tell about the quark-gluon plasma. Nuclear Physics A, 2014, 931, 975-980.	1.5	0
116	Effective dynamical coupling of hydrodynamics and transport for heavy-ion collisions. Journal of Physics: Conference Series, 2017, 832, 012052.	0.4	0
117	Melting and freeze-out conditions of hadrons in a thermal medium. EPJ Web of Conferences, 2018, 171, 14007.	0.3	0
118	Strangeness Production in Nucleus-Nucleus Collisions at SIS Energies. Universe, 2018, 4, 37.	2.5	0
119	Shear viscosity and resonance lifetimes in the hadron gas. Nuclear Physics A, 2019, 982, 807-810.	1.5	0
120	Can Baryon Stopping Be Understood within a Hadronic Transport Approach. Proceedings (mdpi), 2019, 10, 2.	0.2	0
121	Bulk Observables within a Hybrid Approach for Heavy Ion Collisions with SMASH Afterburner. Proceedings (mdpi), 2019, 10, .	0.2	0
122	FAIRNESS 2012: FAIR NExt Generation of ScientistS 2012. Journal of Physics: Conference Series, 2013, 426, 011001.	0.4	0