

Spencer Klein

List of Publications by Year in descending order

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104
papers

4,495
citations

136740

32
h-index

102304

66
g-index

104
all docs

104
docs citations

104
times ranked

5910
citing authors

#	ARTICLE	IF	CITATIONS
1	Electron-Ion Collider: The next QCD frontier. <i>European Physical Journal A</i> , 2016, 52, 1.	1.0	898
2	The physics of ultraperipheral collisions at the LHC. <i>Physics Reports</i> , 2008, 458, 1-171.	10.3	425
3	PHYSICS OF ULTRA-PERIPHERAL NUCLEAR COLLISIONS. <i>Annual Review of Nuclear and Particle Science</i> , 2005, 55, 271-310.	3.5	345
4	Exclusive vector meson production in relativistic heavy ion collisions. <i>Physical Review C</i> , 1999, 60, .	1.1	265
5	Suppression of bremsstrahlung and pair production due to environmental factors. <i>Reviews of Modern Physics</i> , 1999, 71, 1501-1538.	16.4	195
6	STARlight: A Monte Carlo simulation program for ultra-peripheral collisions of relativistic ions. <i>Computer Physics Communications</i> , 2017, 212, 258-268.	3.0	188
7	Invited Review Article: IceCube: An instrument for neutrino astronomy. <i>Review of Scientific Instruments</i> , 2010, 81, 081101.	0.6	157
8	First supermodule of the MACRO detector at Gran Sasso. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 1993, 324, 337-362.	0.7	137
9	Interference in Exclusive Vector Meson Production in Heavy-Ion Collisions. <i>Physical Review Letters</i> , 2000, 84, 2330-2333.	2.9	108
10	LHC forward physics. <i>Journal of Physics G: Nuclear and Particle Physics</i> , 2016, 43, 110201.	1.4	99
11	Coherent Vector-Meson Photoproduction with Nuclear Breakup in Relativistic Heavy-Ion Collisions. <i>Physical Review Letters</i> , 2002, 89, 012301.	2.9	87
12	Photoproduction of Quarkonium in Proton-Proton and Nucleus-Nucleus Collisions. <i>Physical Review Letters</i> , 2004, 92, 142003.	2.9	78
13	Milagrito, a TeV air-shower array. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2000, 449, 478-499.	0.7	59
14	Two-photon interactions with nuclear breakup in relativistic heavy ion collisions. <i>Physical Review C</i> , 2009, 80, .	1.1	56
15	Imaging the nucleus with high-energy photons. <i>Nature Reviews Physics</i> , 2019, 1, 662-674.	11.9	55
16	Photonuclear and Two-Photon Interactions at High-Energy Nuclear Colliders. <i>Annual Review of Nuclear and Particle Science</i> , 2020, 70, 323-354.	3.5	53
17	Multi-photon exchange processes in ultraperipheral relativistic heavy-ion collisions. <i>Nuclear Physics A</i> , 2003, 729, 787-808.	0.6	51
18	Study of penetrating cosmic ray muons and search for large scale anisotropies at the Gran Sasso Laboratory. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 1990, 249, 149-156.	1.5	44

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19	A coplanarity of a lepton pair to probe the electromagnetic property of quark matter. <i>Physical Review Letters</i> , 2019, 122, 132301.	2.9	43
20	New limit on the rate-density of evaporating black holes. <i>Physical Review Letters</i> , 1993, 71, 2524-2527.	2.9	41
21	The high-energy gamma-ray fluence and energy spectrum of GRB 970417a from observations with <i>Milagro</i> . <i>Astrophysical Journal</i> , 2003, 583, 824-832.	1.6	41
22	Heavy quark photoproduction in ultraperipheral heavy ion collisions. <i>Physical Review C</i> , 2002, 66, .	1.1	40
23	Searches for new quarks and leptons produced in Z-boson decay. <i>Physical Review Letters</i> , 1989, 63, 2447-2451.	2.9	39
24	A prototype station for ARIANNA: A detector for cosmic neutrinos. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2010, 624, 85-91.	0.7	38
25	Study of the ultrahigh-energy primary-cosmic-ray composition with the MACRO experiment. <i>Physical Review D</i> , 1992, 46, 895-902.	1.6	37
26	Lepton pair production through two-photon process in heavy ion collisions. <i>Physical Review D</i> , 2020, 102, .	1.6	37
27	Localized beam-pipe heating due to e^+e^- capture and nuclear excitation in heavy ion colliders. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2001, 459, 51-57.	0.7	36
28	Electron and photon interactions in the regime of strong Landau-Pomeranchuk-Migdal suppression. <i>Physical Review D</i> , 2010, 82, .	1.6	36
29	Two-photon production of dilepton pairs in peripheral heavy ion collisions. <i>Physical Review C</i> , 2018, 97, .	1.1	35
30	Study of the primary cosmic ray composition around the knee of the energy spectrum. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 1994, 337, 376-382.	1.5	34
31	Pseudorapidity asymmetry and centrality dependence of charged hadron spectra in d+Au collisions at $\sqrt{s_{NN}}=200$ GeV. <i>Physical Review C</i> , 2004, 70, .	1.1	34
32	Graph Neural Networks for IceCube signal classification. , 2018, , .		33
33	Search for nuclearites using the MACRO detector. <i>Physical Review Letters</i> , 1992, 69, 1860-1863.	2.9	32
34	Exclusive vector meson production at an electron-ion collider. <i>Physical Review C</i> , 2019, 99, .	1.1	30
35	Measurement of the decoherence function with the MACRO detector at Gran Sasso. <i>Physical Review D</i> , 1992, 46, 4836-4845.	1.6	29
36	Search for slowly moving magnetic monopoles with the MACRO detector. <i>Physical Review Letters</i> , 1994, 72, 608-612.	2.9	29

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37	Muon astronomy with the MACRO detector. <i>Astrophysical Journal</i> , 1993, 412, 301.	1.6	28
38	Search for neutrino bursts from collapsing stars with the MACRO detector. <i>Astroparticle Physics</i> , 1992, 1, 11-25.	1.9	25
39	Pair production from 10 GeV to 10 ZeV. <i>Radiation Physics and Chemistry</i> , 2006, 75, 696-711.	1.4	25
40	Astronomy and astrophysics with neutrinos. <i>Physics Today</i> , 2008, 61, 29-35.	0.3	25
41	MUON ACCELERATION IN COSMIC-RAY SOURCES. <i>Astrophysical Journal</i> , 2013, 779, 106.	1.6	24
42	Prompt D_0 , D^+ , and D^{*+} production in $Pb\text{-}Pb$ collisions at $\sqrt{s_{\mathrm{NN}}} = 5.02$ TeV. <i>Journal of High Energy Physics</i> , 2022, 2022, 1.	1.6	23
43	Improvements in the CR39 polymer for the macro experiment at the Gran Sasso Laboratory. <i>International Journal of Radiation Applications and Instrumentation Part D, Nuclear Tracks and Radiation Measurements</i> , 1991, 19, 641-646.	0.6	22
44	A full-acceptance detector at the LHC (FELIX). <i>Journal of Physics G: Nuclear and Particle Physics</i> , 2002, 28, R117-R215.	1.4	22
45	Simultaneous observation of extensive air showers and deep-underground muons at the Gran Sasso Laboratory. <i>Physical Review D</i> , 1990, 42, 1396-1403.	1.6	19
46	Radar absorption, basal reflection, thickness and polarization measurements from the Ross Ice Shelf, Antarctica. <i>Journal of Glaciology</i> , 2015, 61, 438-446.	1.1	19
47	Photoproduction of charged final states in ultraperipheral collisions and electroproduction at an electron-ion collider. <i>Physical Review C</i> , 2019, 100, .	1.1	19
48	Coherent J/ψ and $\Upsilon(1S)$ photoproduction at midrapidity in ultra-peripheral $Pb\text{-}Pb$ collisions at $\sqrt{s_{\mathrm{NN}}} \sim 5.02$ TeV. <i>European Physical Journal C</i> , 2021, 81, 1.	1.4	18
49	IceCube: A Cubic Kilometer Radiation Detector. <i>IEEE Transactions on Nuclear Science</i> , 2009, 56, 1141-1147.	1.2	16
50	Ultra-peripheral collisions and hadronic structure. <i>Nuclear Physics A</i> , 2017, 967, 249-256.	0.6	16
51	Arrival time distributions of very high energy cosmic ray muons in MACRO. <i>Nuclear Physics B</i> , 1992, 370, 432-444.	0.9	14
52	High energy cosmic-ray interactions with particles from the Sun. <i>Physical Review D</i> , 2011, 83, .	1.6	13
53	Daily search for emission of ultra-high-energy radiation from point sources. <i>Astrophysical Journal</i> , 1993, 405, 353.	1.6	13
54	A Search for Ultra-High-Energy Gamma-Ray Emission from Five Supernova Remnants. <i>Astrophysical Journal</i> , 1995, 448, .	1.6	12

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55	A Radio Detector Array for Cosmic Neutrinos on the Ross Ice Shelf. IEEE Transactions on Nuclear Science, 2013, 60, 637-643.	1.2	12
56	Production of pions, kaons, (anti-)protons and ϕ mesons in Xe-Xe collisions at $\sqrt{s_{\mathrm{NN}}}$ = 5.44 TeV. European Physical Journal C, 2021, 81, 1.	1.4	12
57	Search for Emission of Ultra-High-Energy Radiation from Active Galactic Nuclei. Astrophysical Journal, 1993, 418, 832.	1.6	12
58	Coherent photoproduction of ρ vector mesons in ultra-peripheral Pb-Pb collisions at $\sqrt{s_{\mathrm{NN}}} = 5.02$ TeV. Journal of High Energy Physics, 2020, 2020, 1.	1.6	11
59	A new contribution to the conventional atmospheric neutrino flux. Astroparticle Physics, 2015, 64, 13-17.	1.9	11
60	Nuclear effects in high-energy neutrino interactions. Physical Review C, 2020, 102, .	1.1	11
61	Coherent photoproduction of ρ vector mesons in ultra-peripheral Pb-Pb collisions at $\sqrt{s_{\mathrm{NN}}} = 5.02$ TeV. Journal of High Energy Physics, 2020, 2020, 1.	1.6	11
62	Does particle decay cause wave function collapse: an experimental test. Physics Letters, Section A: General, Atomic and Solid State Physics, 2003, 308, 323-328.	0.9	10
63	Deuteron photodissociation in ultraperipheral relativistic heavy-ion on deuteron collisions. Physical Review C, 2003, 68, .	1.1	8
64	Comment on e^+e^- production in photon-induced interactions at the LHC. Physical Review D, 2018, 98, .	1.6	8
65	Cherenkov radiation from e^+e^- pairs and its effect on γ -induced showers. Physical Review D, 2005, 72, .	1.6	7
66	Muon Production in Relativistic Cosmic-Ray Interactions. Nuclear Physics A, 2009, 830, 869c-872c.	0.6	7
67	Supersymmetric and Kaluza-Klein particles multiple scattering in the Earth. Physical Review D, 2009, 80, .	1.6	7
68	Heavy ion beam loss mechanisms at an electron-ion collider. Physical Review Special Topics: Accelerators and Beams, 2014, 17, .	1.8	7
69	Audiofrequency measurement of JFET noise versus temperature in a high-impedance preamplifier. Review of Scientific Instruments, 1985, 56, 1941-1945.	0.6	6
70	Rotor electrometer: New instrument for bulk matter quark search experiments. Review of Scientific Instruments, 1986, 57, 2691-2698.	0.6	6
71	Heavy nuclei, from RHIC to the cosmos. Nuclear Physics, Section B, Proceedings Supplements, 2003, 122, 76-85.	0.5	5
72	Radiodetection of Neutrinos. Nuclear Physics, Section B, Proceedings Supplements, 2012, 229-232, 284-288.	0.5	5

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73	Double neutrino production and detection in neutrino detectors. Physical Review D, 2013, 88, .	1.6	5
74	Ultrapерipheral nuclear collisions. Physics Today, 2017, 70, 40-47.	0.3	5
75	A clash of photons. Nature Physics, 2017, 13, 827-828.	6.5	4
76	First Results from IceCube. AIP Conference Proceedings, 2006, , .	0.3	3
77	Studying High pT Muons in Cosmic-Ray Air Showers. Nuclear Physics, Section B, Proceedings Supplements, 2008, 175-176, 346-349.	0.5	3
78	A multiplexed 200 MSPS waveform digitizer with zero suppression for MACRO. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1991, 309, 536-544.	0.7	2
79	Bremsstrahlung and pair creation: Suppression mechanisms and how they affect EHE air showers. , 1998, , .		2
80	Recentvs from IceCube. Journal of Physics: Conference Series, 2008, 136, 022050.	0.3	2
81	Couderc and Klein Reply:. Physical Review Letters, 2009, 103, .	2.9	2
82	Recent Highlights from IceCube. Brazilian Journal of Physics, 2014, 44, 540-549.	0.7	2
83	Physics: Invest in neutrino astronomy. Nature, 2016, 533, 462-464.	13.7	2
84	Dipion photoproduction and the Q^2 evolution of the shape of gold nuclei. , 2018, , .		2
85	Backward-angle ($\theta < 90^\circ$) π^0 production at an electron-ion collider. Physical Review C, 2022, 106, .	1.1	2
86	Observation of $Au + Au \rightarrow Au + Au + \pi^0$ and $Au + Au \rightarrow Au^{*} + Au^{*} + \pi^0$ with STAR. Acta Physica Hungarica A Heavy Ion Physics, 2002, 15, 369-379.	0.4	1
87	Recent Results from RHIC & Some Lessons for Cosmic-Ray Physicists. Nuclear Physics, Section B, Proceedings Supplements, 2008, 175-176, 9-16.	0.5	1
88	High-energy neutrino interaction physics with IceCube. EPJ Web of Conferences, 2019, 208, 09001.	0.1	1
89	Using precision timing to improve particle tracking. Journal of Instrumentation, 2020, 15, P03024-P03024.	0.5	1
90	Nonlinear QED Effects in Heavy Ion Collisions. , 2002, , .		1

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91	Using coherent dipion photoproduction to image gold nuclei. SciPost Physics Proceedings, 2022, , .	0.2	1
92	Status report of the macro experiment at gran sasso. Nuclear Physics, Section B, Proceedings Supplements, 1990, 13, 368-371.	0.5	0
93	First results from the MACRO detector at the Gran Sasso Laboratory. Nuclear Physics, Section B, Proceedings Supplements, 1990, 16, 486-487.	0.5	0
94	TEXAS: a calorimeter-based high-rate detector for the SSC. Nuclear Instruments & Methods in Physics Research B, 1991, 56-57, 948-951.	0.6	0
95	First results from the MACRO experiment at the Gran Sasso Laboratory. Nuclear Physics, Section B, Proceedings Supplements, 1991, 19, 128-137.	0.5	0
96	Cosmic ray search for strange quark matter with the macro detector. Nuclear Physics, Section B, Proceedings Supplements, 1991, 24, 191-194.	0.5	0
97	Search for stellar gravitational collapse by MACRO: Characteristics and results. Nuclear Physics, Section B, Proceedings Supplements, 1992, 28, 61-64.	0.5	0
98	Measurement of electromagnetic and TEV muon components of extensive air showers by eas-top and MACRO experiments. Nuclear Physics, Section B, Proceedings Supplements, 1992, 28, 393-396.	0.5	0
99	Photoproduction at Hadron Colliders. AIP Conference Proceedings, 2005, , .	0.3	0
100	INTRODUCTION TO THE SALSA, A SALTDOME SHOWER ARRAY AS A GZK NEUTRINO OBSERVATORY. International Journal of Modern Physics A, 2006, 21, 252-253.	0.5	0
101	The polar particle hunter. IEEE Spectrum, 2011, 48, 42-47.	0.5	0
102	Particle interactions in matter at the terascale: The cosmic-ray experience. Nuclear Instruments & Methods in Physics Research B, 2013, 315, 14-20.	0.6	0
103	Adventures in Antarctic Computing, or How I Learned to Stop Worrying and Love the Neutrino. Computer, 2014, 47, 56-61.	1.2	0
104	sPHENIX Collaboration. Nuclear Physics A, 2017, 967, 1004-1006.	0.6	0