

Lu Lu

List of Publications by Year in descending order

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112
papers

7,878
citations

44069

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docs citations

114
times ranked

7436
citing authors

#	ARTICLE	IF	CITATIONS
1	First all-flavor search for transient neutrino emission using 3-years of IceCube DeepCore data. Journal of Cosmology and Astroparticle Physics, 2022, 2022, 027.	5.4	6
2	Search for Relativistic Magnetic Monopoles with Eight Years of IceCube Data. Physical Review Letters, 2022, 128, 051101.	7.8	12
3	Search for High-energy Neutrinos from Ultraluminous Infrared Galaxies with IceCube. Astrophysical Journal, 2022, 926, 59.	4.5	7
4	Improved Characterization of the Astrophysical Muon neutrino Flux with 9.5 Years of IceCube Data. Astrophysical Journal, 2022, 928, 50.	4.5	67
5	Search for GeV-scale dark matter annihilation in the Sun with IceCube DeepCore. Physical Review D, 2022, 105, .	4.7	15
6	Strong Constraints on Neutrino Nonstandard Interactions from TeV-Scale $\langle \sigma_{\nu N} \rangle$ Disappearance at IceCube. Physical Review Letters, 2022, 129, .	7.8	7
7	Detection of a particle shower at the Glashow resonance with IceCube. Nature, 2021, 591, 220-224.	27.8	86
8	Follow-up of Astrophysical Transients in Real Time with the IceCube Neutrino Observatory. Astrophysical Journal, 2021, 910, 4.	4.5	18
9	IceCube-Gen2: the window to the extreme Universe. Journal of Physics G: Nuclear and Particle Physics, 2021, 48, 060501.	3.6	204
10	A Search for Time-dependent Astrophysical Neutrino Emission with IceCube Data from 2012 to 2017. Astrophysical Journal, 2021, 911, 67.	4.5	9
11	Search for GeV neutrino emission during intense gamma-ray solar flares with the IceCube Neutrino Observatory. Physical Review D, 2021, 103, .	4.7	5
12	IceCube high-energy starting event sample: Description and flux characterization with 7.5 years of data. Physical Review D, 2021, 104, .	4.7	142
13	Measurement of the high-energy all-flavor neutrino-nucleon cross section with IceCube. Physical Review D, 2021, 104, .	4.7	15
14	Deep-learning based reconstruction of the shower maximum X_{max} using the water-Cherenkov detectors of the Pierre Auger Observatory. Journal of Instrumentation, 2021, 16, P07019.	1.2	16
15	Extraction of the muon signals recorded with the surface detector of the Pierre Auger Observatory using recurrent neural networks. Journal of Instrumentation, 2021, 16, P07016.	1.2	11
16	A convolutional neural network based cascade reconstruction for the IceCube Neutrino Observatory. Journal of Instrumentation, 2021, 16, P07041.	1.2	29
17	All-flavor constraints on nonstandard neutrino interactions and generalized matter potential with three years of IceCube DeepCore data. Physical Review D, 2021, 104, .	4.7	13
18	Search for Multi-flare Neutrino Emissions in 10 yr of IceCube Data from a Catalog of Sources. Astrophysical Journal Letters, 2021, 920, L45.	8.3	12

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19	Neutrinos below 100 TeV from the southern sky employing refined veto techniques to IceCube data. <i>Astroparticle Physics</i> , 2020, 116, 102392.	4.3	3
20	Searching for eV-scale sterile neutrinos with eight years of atmospheric neutrinos at the IceCube Neutrino Telescope. <i>Physical Review D</i> , 2020, 102, .	4.7	34
21	Design and performance of the first IceAct demonstrator at the South Pole. <i>Journal of Instrumentation</i> , 2020, 15, T02002-T02002.	1.2	3
22	In-situ calibration of the single-photoelectron charge response of the IceCube photomultiplier tubes. <i>Journal of Instrumentation</i> , 2020, 15, P06032-P06032.	1.2	14
23	IceCube Search for Neutrinos Coincident with Compact Binary Mergers from LIGO-Virgo's First Gravitational-wave Transient Catalog. <i>Astrophysical Journal Letters</i> , 2020, 898, L10.	8.3	30
24	Combined sensitivity to the neutrino mass ordering with JUNO, the IceCube Upgrade, and PINGU. <i>Physical Review D</i> , 2020, 101, .	4.7	25
25	Computational techniques for the analysis of small signals in high-statistics neutrino oscillation experiments. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2020, 977, 164332.	1.6	2
26	Constraints on neutrino emission from nearby galaxies using the 2MASS redshift survey and IceCube. <i>Journal of Cosmology and Astroparticle Physics</i> , 2020, 2020, 042-042.	5.4	5
27	Velocity independent constraints on spin-dependent DM-nucleon interactions from IceCube and PICO. <i>European Physical Journal C</i> , 2020, 80, 1.	3.9	6
28	Characteristics of the Diffuse Astrophysical Electron and Tau Neutrino Flux with Six Years of IceCube High Energy Cascade Data. <i>Physical Review Letters</i> , 2020, 125, 121104.	7.8	137
29	The use of Cherenkov light in the detection of high-energy cosmic rays and neutrinos: The Pierre Auger and IceCube Observatories. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2020, 970, 163678.	1.6	0
30	A Search for IceCube Events in the Direction of ANITA Neutrino Candidates. <i>Astrophysical Journal</i> , 2020, 892, 53.	4.5	20
31	Search for PeV Gamma-Ray Emission from the Southern Hemisphere with 5 Yr of Data from the IceCube Observatory. <i>Astrophysical Journal</i> , 2020, 891, 9.	4.5	12
32	Time-Integrated Neutrino Source Searches with 10 Years of IceCube Data. <i>Physical Review Letters</i> , 2020, 124, 051103.	7.8	221
33	eV-Scale Sterile Neutrino Search Using Eight Years of Atmospheric Muon Neutrino Data from the IceCube Neutrino Observatory. <i>Physical Review Letters</i> , 2020, 125, 141801.	7.8	57
34	Development of an analysis to probe the neutrino mass ordering with atmospheric neutrinos using three years of IceCube DeepCore data. <i>European Physical Journal C</i> , 2020, 80, 1.	3.9	12
35	A Search for MeV to TeV Neutrinos from Fast Radio Bursts with IceCube. <i>Astrophysical Journal</i> , 2020, 890, 111.	4.5	20
36	A Search for Neutrino Point-source Populations in 7 yr of IceCube Data with Neutrino-count Statistics. <i>Astrophysical Journal</i> , 2020, 893, 102.	4.5	11

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37	IceCube Search for High-energy Neutrino Emission from TeV Pulsar Wind Nebulae. <i>Astrophysical Journal</i> , 2020, 898, 117.	4.5	21
38	Investigation of Two Fermi-LAT Gamma-Ray Blazars Coincident with High-energy Neutrinos Detected by IceCube. <i>Astrophysical Journal</i> , 2019, 880, 103.	4.5	60
39	Search for transient optical counterparts to high-energy IceCube neutrinos with Pan-STARRS1. <i>Astronomy and Astrophysics</i> , 2019, 626, A117.	5.1	13
40	Efficient propagation of systematic uncertainties from calibration to analysis with the SnowStorm method in IceCube. <i>Journal of Cosmology and Astroparticle Physics</i> , 2019, 2019, 048-048.	5.4	14
41	Cosmic ray spectrum and composition from PeV to EeV using 3 years of data from IceTop and IceCube. <i>Physical Review D</i> , 2019, 100, .	4.7	76
42	Search for Sources of Astrophysical Neutrinos Using Seven Years of IceCube Cascade Events. <i>Astrophysical Journal</i> , 2019, 886, 12.	4.5	53
43	Search for steady point-like sources in the astrophysical muon neutrino flux with 8 years of IceCube data. <i>European Physical Journal C</i> , 2019, 79, 1.	3.9	75
44	Improving the directional reconstruction of PeV hadronic cascades in IceCube. <i>EPJ Web of Conferences</i> , 2019, 207, 05003.	0.3	3
45	Measurement of atmospheric tau neutrino appearance with IceCube DeepCore. <i>Physical Review D</i> , 2019, 99, .	4.7	53
46	All-sky Measurement of the Anisotropy of Cosmic Rays at 10 TeV and Mapping of the Local Interstellar Magnetic Field. <i>Astrophysical Journal</i> , 2019, 871, 96.	4.5	32
47	Detection of the Temporal Variation of the Sun's Cosmic Ray Shadow with the IceCube Detector. <i>Astrophysical Journal</i> , 2019, 872, 133.	4.5	7
48	Constraints on Minute-Scale Transient Astrophysical Neutrino Sources. <i>Physical Review Letters</i> , 2019, 122, 051102.	7.8	23
49	Measurements using the inelasticity distribution of multi-TeV neutrino interactions in IceCube. <i>Physical Review D</i> , 2019, 99, .	4.7	55
50	Measurement of Atmospheric Neutrino Oscillations at 6×10^6 GeV with IceCube DeepCore. <i>Physical Review Letters</i> , 2018, 120, 071801.	7.8	88
51	Search for nonstandard neutrino interactions with IceCube DeepCore. <i>Physical Review D</i> , 2018, 97, .	4.7	23
52	Astrophysical neutrinos and cosmic rays observed by IceCube. <i>Advances in Space Research</i> , 2018, 62, 2902-2930.	2.6	20
53	Search for neutrinos from decaying dark matter with IceCube. <i>European Physical Journal C</i> , 2018, 78, 831.	3.9	62
54	Differential limit on the extremely-high-energy cosmic neutrino flux in the presence of astrophysical background from nine years of IceCube data. <i>Physical Review D</i> , 2018, 98, .	4.7	131

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55	Multimessenger observations of a flaring blazar coincident with high-energy neutrino IceCube-170922A. <i>Science</i> , 2018, 361, .	12.6	654
56	Neutrino emission from the direction of the blazar TXS 0506+056 prior to the IceCube-170922A alert. <i>Science</i> , 2018, 361, 147-151.	12.6	601
57	A Search for Neutrino Emission from Fast Radio Bursts with Six Years of IceCube Data. <i>Astrophysical Journal</i> , 2018, 857, 117.	4.5	22
58	All-sky Search for Time-integrated Neutrino Emission from Astrophysical Sources with 7 yr of IceCube Data. <i>Astrophysical Journal</i> , 2017, 835, 151.	4.5	198
59	THE CONTRIBUTION OF FERMI-2LAC BLAZARS TO DIFFUSE TEVâ€“PEV NEUTRINO FLUX. <i>Astrophysical Journal</i> , 2017, 835, 45.	4.5	186
60	PINGU: a vision for neutrino and particle physics at the South Pole. <i>Journal of Physics G: Nuclear and Particle Physics</i> , 2017, 44, 054006.	3.6	45
61	The IceCube realtime alert system. <i>Astroparticle Physics</i> , 2017, 92, 30-41.	4.3	116
62	The IceCube Neutrino Observatory: instrumentation and online systems. <i>Journal of Instrumentation</i> , 2017, 12, P03012-P03012.	1.2	390
63	Search for Astrophysical Sources of Neutrinos Using Cascade Events in IceCube. <i>Astrophysical Journal</i> , 2017, 846, 136.	4.5	21
64	Search for sterile neutrino mixing using three years of IceCube DeepCore data. <i>Physical Review D</i> , 2017, 95, .	4.7	75
65	Search for annihilating dark matter in the Sun with 3Â½years of IceCube data. <i>European Physical Journal C</i> , 2017, 77, 1.	3.9	111
66	Measurement of the μ energy spectrum with IceCube-79. <i>European Physical Journal C</i> , 2017, 77, 692.	3.9	24
67	Constraints on Galactic Neutrino Emission with Seven Years of IceCube Data. <i>Astrophysical Journal</i> , 2017, 849, 67.	4.5	95
68	Extending the Search for Muon Neutrinos Coincident with Gamma-Ray Bursts in IceCube Data. <i>Astrophysical Journal</i> , 2017, 843, 112.	4.5	116
69	First search for dark matter annihilations in the Earth with the IceCube detector. <i>European Physical Journal C</i> , 2017, 77, 1.	3.9	20
70	Search for neutrinos from dark matter self-annihilations in the center of the Milky Way with 3 years of IceCube/DeepCore. <i>European Physical Journal C</i> , 2017, 77, 1.	3.9	62
71	Multiwavelength follow-up of a rare IceCube neutrino multiplet. <i>Astronomy and Astrophysics</i> , 2017, 607, A115.	5.1	33
72	Multi-flavour PeV neutrino search with IceCube. , 2017, , .		3

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73	Improved limits on dark matter annihilation in the Sun with the 79-string IceCube detector and implications for supersymmetry. <i>Journal of Cosmology and Astroparticle Physics</i> , 2016, 2016, 022-022.	5.4	56
74	OBSERVATION AND CHARACTERIZATION OF A COSMIC MUON NEUTRINO FLUX FROM THE NORTHERN HEMISPHERE USING SIX YEARS OF ICECUBE DATA. <i>Astrophysical Journal</i> , 2016, 833, 3.	4.5	336
75	SEARCH FOR SOURCES OF HIGH-ENERGY NEUTRONS WITH FOUR YEARS OF DATA FROM THE ICETOP DETECTOR. <i>Astrophysical Journal</i> , 2016, 830, 129.	4.5	7
76	Constraints on Ultrahigh-Energy Cosmic-Ray Sources from a Search for Neutrinos above 10 ¹⁶ eV with IceCube. <i>Physical Review Letters</i> , 2016, 117, 241101.	7.8	111
77	THE FIRST COMBINED SEARCH FOR NEUTRINO POINT-SOURCES IN THE SOUTHERN HEMISPHERE WITH THE ANTARES AND ICECUBE NEUTRINO TELESCOPES. <i>Astrophysical Journal</i> , 2016, 823, 65.	4.5	49
78	Neutrino oscillation studies with IceCube-DeepCore. <i>Nuclear Physics B</i> , 2016, 908, 161-177.	2.5	11
79	ANISOTROPY IN COSMIC-RAY ARRIVAL DIRECTIONS IN THE SOUTHERN HEMISPHERE BASED ON SIX YEARS OF DATA FROM THE ICECUBE DETECTOR. <i>Astrophysical Journal</i> , 2016, 826, 220.	4.5	72
80	Searches for Sterile Neutrinos with the IceCube Detector. <i>Physical Review Letters</i> , 2016, 117, 071801.	7.8	140
81	All-flavour search for neutrinos from dark matter annihilations in the Milky Way with IceCube/DeepCore. <i>European Physical Journal C</i> , 2016, 76, 1.	3.9	37
82	Search for astrophysical tau neutrinos in three years of IceCube data. <i>Physical Review D</i> , 2016, 93, .	4.7	44
83	AN ALL-SKY SEARCH FOR THREE FLAVORS OF NEUTRINOS FROM GAMMA-RAY BURSTS WITH THE ICECUBE NEUTRINO OBSERVATORY. <i>Astrophysical Journal</i> , 2016, 824, 115.	4.5	109
84	LOWERING ICECUBE'S ENERGY THRESHOLD FOR POINT SOURCE SEARCHES IN THE SOUTHERN SKY. <i>Astrophysical Journal Letters</i> , 2016, 824, L28.	8.3	27
85	Searches for relativistic magnetic monopoles in IceCube. <i>European Physical Journal C</i> , 2016, 76, 1.	3.9	29
86	THE SEARCH FOR TRANSIENT ASTROPHYSICAL NEUTRINO EMISSION WITH ICECUBE-DEEPCORE. <i>Astrophysical Journal</i> , 2016, 816, 75.	4.5	5
87	SEARCHES FOR ANISOTROPIES IN THE ARRIVAL DIRECTIONS OF THE HIGHEST ENERGY COSMIC RAYS DETECTED BY THE PIERRE AUGER OBSERVATORY. <i>Astrophysical Journal</i> , 2015, 804, 15.	4.5	146
88	Improved limit to the diffuse flux of ultrahigh energy neutrinos from the Pierre Auger Observatory. <i>Physical Review D</i> , 2015, 91, .	4.7	125
89	Muons in air showers at the Pierre Auger Observatory: Mean number in highly inclined events. <i>Physical Review D</i> , 2015, 91, .	4.7	152
90	Search for patterns by combining cosmic-ray energy and arrival directions at the Pierre Auger Observatory. <i>European Physical Journal C</i> , 2015, 75, 269.	3.9	12

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91	LARGE SCALE DISTRIBUTION OF ULTRA HIGH ENERGY COSMIC RAYS DETECTED AT THE PIERRE AUGER OBSERVATORY WITH ZENITH ANGLES UP TO 80°. <i>Astrophysical Journal</i> , 2015, 802, 111.	4.5	49
92	Depth of maximum of air-shower profiles at the Pierre Auger Observatory. I. Measurements at energies above 10^{17} eV. <i>Physical Review D</i> , 2014, 90, .	4.7	266
93	Depth of maximum of air-shower profiles at the Pierre Auger Observatory. II. Composition implications. <i>Physical Review D</i> , 2014, 90, .	4.7	213
94	SEARCHES FOR LARGE-SCALE ANISOTROPY IN THE ARRIVAL DIRECTIONS OF COSMIC RAYS DETECTED ABOVE ENERGY OF 10^{19} eV AT THE PIERRE AUGER OBSERVATORY AND THE TELESCOPE ARRAY. <i>Astrophysical Journal</i> , 2014, 794, 172.	4.5	72
95	A SEARCH FOR POINT SOURCES OF EeV PHOTONS. <i>Astrophysical Journal</i> , 2014, 789, 160.	4.5	29
96	Probing the radio emission from air showers with polarization measurements. <i>Physical Review D</i> , 2014, 89, .	4.7	85
97	Muons in air showers at the Pierre Auger Observatory: Measurement of atmospheric production depth. <i>Physical Review D</i> , 2014, 90, .	4.7	69
98	A TARGETED SEARCH FOR POINT SOURCES OF EeV NEUTRONS. <i>Astrophysical Journal Letters</i> , 2014, 789, L34.	8.3	14
99	Origin of atmospheric aerosols at the Pierre Auger Observatory using studies of air mass trajectories in South America. <i>Atmospheric Research</i> , 2014, 149, 120-135.	4.1	6
100	Identifying clouds over the Pierre Auger Observatory using infrared satellite data. <i>Astroparticle Physics</i> , 2013, 50-52, 92-101.	4.3	8
101	Ultrahigh Energy Neutrinos at the Pierre Auger Observatory. <i>Advances in High Energy Physics</i> , 2013, 2013, 1-18.	1.1	39
102	CONSTRAINTS ON THE ORIGIN OF COSMIC RAYS ABOVE 10^{18} eV FROM LARGE-SCALE ANISOTROPY SEARCHES IN DATA OF THE PIERRE AUGER OBSERVATORY. <i>Astrophysical Journal Letters</i> , 2013, 762, L13.	8.3	67
103	SEARCH FOR POINT-LIKE SOURCES OF ULTRA-HIGH ENERGY NEUTRINOS AT THE PIERRE AUGER OBSERVATORY AND IMPROVED LIMIT ON THE DIFFUSE FLUX OF TAU NEUTRINOS. <i>Astrophysical Journal Letters</i> , 2012, 755, L4.	8.3	55
104	Antennas for the detection of radio emission pulses from cosmic-ray induced air showers at the Pierre Auger Observatory. <i>Journal of Instrumentation</i> , 2012, 7, P10011-P10011.	1.2	95
105	Measurement of the Proton-Air Cross Section at 5.7×10^{19} eV at the Pierre Auger Observatory. <i>Physical Review Letters</i> , 2012, 109, 062002.	7.8	212
106	Publisher's Note: Search for ultrahigh energy neutrinos in highly inclined events at the Pierre Auger Observatory [<i>Phys. Rev. D</i> 84, 122005 (2011)]. <i>Physical Review D</i> , 2012, 85, .	4.7	8
107	A SEARCH FOR POINT SOURCES OF EeV NEUTRONS. <i>Astrophysical Journal</i> , 2012, 760, 148.	4.5	27
108	LARGE-SCALE DISTRIBUTION OF ARRIVAL DIRECTIONS OF COSMIC RAYS DETECTED ABOVE 10^{18} eV AT THE PIERRE AUGER OBSERVATORY. <i>Astrophysical Journal, Supplement Series</i> , 2012, 203, 34.	7.7	44

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109	A search for anisotropy in the arrival directions of ultra high energy cosmic rays recorded at the Pierre Auger Observatory. <i>Journal of Cosmology and Astroparticle Physics</i> , 2012, 2012, 040-040.	5.4	6
110	Search for signatures of magnetically-induced alignment in the arrival directions measured by the Pierre Auger Observatory. <i>Astroparticle Physics</i> , 2012, 35, 354-361.	4.3	32
111	Description of atmospheric conditions at the Pierre Auger Observatory using the Global Data Assimilation System (GDAS). <i>Astroparticle Physics</i> , 2012, 35, 591-607.	4.3	66
112	Search for ultrahigh energy neutrinos in highly inclined events at the Pierre Auger Observatory. <i>Physical Review D</i> , 2011, 84, .	4.7	51