

Zhen Cao

List of Publications by Year in descending order

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91
papers

3,544
citations

186265
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133252
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91
all docs

91
docs citations

91
times ranked

2234
citing authors

#	ARTICLE	IF	CITATIONS
1	First Observation of the Greisen-Zatsepin-Kuzmin Suppression. <i>Physical Review Letters</i> , 2008, 100, 101101.	7.8	568
2	Ultrahigh-energy photons up to 1.4 petaelectronvolts from 12 $\hat{1}^3$ -ray Galactic sources. <i>Nature</i> , 2021, 594, 33-36.	27.8	262
3	Measurement of the Flux of Ultrahigh Energy Cosmic Rays from Monocular Observations by the High Resolution Flyâ€™s Eye Experiment. <i>Physical Review Letters</i> , 2004, 92, 151101.	7.8	233
4	Stress-driven buckling patterns in spheroidal core/shell structures. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008, 105, 19132-19135.	7.1	207
5	Measurement of the Cosmicâ€™Ray Energy Spectrum and Composition from 1017to 1018.3eV Using a Hybrid Technique. <i>Astrophysical Journal</i> , 2001, 557, 686-699.	4.5	173
6	A Study of the Composition of Ultraâ€™Highâ€™Energy Cosmic Rays Using the Highâ€™Resolution Flyâ€™s Eye. <i>Astrophysical Journal</i> , 2005, 622, 910-926.	4.5	170
7	Layout and performance of RPCs used in the Argo-YBJ experiment. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2006, 562, 92-96.	1.6	160
8	Knee of the cosmic hydrogen and helium spectrum below 1ÂˆPeV measured by ARGO-YBJ and a Cherenkov telescope of LHAASO. <i>Physical Review D</i> , 2015, 92, .	4.7	94
9	Petaâ€™electron volt gamma-ray emission from the Crab Nebula. <i>Science</i> , 2021, 373, 425-430.	12.6	86
10	Study of Small-Scale Anisotropy of Ultra-High-Energy Cosmic Rays Observed in Stereo by the High Resolution Fly's Eye Detector. <i>Astrophysical Journal</i> , 2004, 610, L73-L76.	4.5	79
11	IDENTIFICATION OF THE TeV GAMMA-RAY SOURCE ARGO J2031+4157 WITH THE CYGNUS COCOON. <i>Astrophysical Journal</i> , 2014, 790, 152.	4.5	73
12	LONG-TERM MONITORING OF THE TeV EMISSION FROM Mrk 421 WITH THE ARGO-YBJ EXPERIMENT. <i>Astrophysical Journal</i> , 2011, 734, 110.	4.5	67
13	Observation of the Crab Nebula with LHAASO-KM2A â€™ a performance study *. <i>Chinese Physics C</i> , 2021, 45, 025002.	3.7	67
14	Search for steady emission of 10-TeV gamma rays from the Crab Nebula, Cygnus X-3, and Hercules X-1 using the Tibet air shower array. <i>Physical Review Letters</i> , 1992, 69, 2468-2471.	7.8	66
15	TeV GAMMA-RAY SURVEY OF THE NORTHERN SKY USING THE ARGO-YBJ DETECTOR. <i>Astrophysical Journal</i> , 2013, 779, 27.	4.5	64
16	Observation of the cosmic ray moon shadowing effect with the ARGO-YBJ experiment. <i>Physical Review D</i> , 2011, 84, .	4.7	63
17	Medium scale anisotropy in the TeV cosmic ray flux observed by ARGO-YBJ. <i>Physical Review D</i> , 2013, 88, .	4.7	57
18	Proton-air cross section measurement with the ARGO-YBJ cosmic ray experiment. <i>Physical Review D</i> , 2009, 80, .	4.7	56

#	ARTICLE	IF	CITATIONS
19	Chapter 1 LHAASO Instruments and Detector technology *. Chinese Physics C, 2022, 46, 030001.	3.7	54
20	OBSERVATION OF TeV GAMMA RAYS FROM THE CYGNUS REGION WITH THE ARGO-YBJ EXPERIMENT. Astrophysical Journal Letters, 2012, 745, L22.	8.3	51
21	Temperature effect on RPC performance in the ARGO-YBJ experiment. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2009, 608, 246-250.	1.6	49
22	Light-component spectrum of the primary cosmic rays in the multi-TeV region measured by the ARGO-YBJ experiment. Physical Review D, 2012, 85, .	4.7	49
23	LONG-TERM MONITORING OF MRK 501 FOR ITS VERY HIGH ENERGY γ EMISSION AND A FLARE IN 2011 OCTOBER. Astrophysical Journal, 2012, 758, 2.	4.5	49
24	A measurement of the average longitudinal development profile of cosmic ray air showers between 1017 and 1018 eV. Astroparticle Physics, 2001, 16, 1-11.	4.3	43
25	OBSERVATION OF THE TeV GAMMA-RAY SOURCE MGRO J1908+06 WITH ARGO-YBJ. Astrophysical Journal, 2012, 760, 110.	4.5	38
26	Testing Lorentz invariance with the ultrahigh energy cosmic ray spectrum. Physical Review D, 2009, 79, .	4.7	37
27	Detection of thermal neutrons with the PRISMA-YBJ array in extensive air showers selected by the ARGO-YBJ experiment. Astroparticle Physics, 2016, 81, 49-60.	4.3	36
28	Properties and performance of two wide field of view Cherenkov/fluorescence telescope array prototypes. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2011, 629, 57-65.	1.6	35
29	Energy spectrum of cosmic protons and helium nuclei by a hybrid measurement at 4300 m a.s.l.. Chinese Physics C, 2014, 38, 045001.	3.7	31
30	Discovery of the Ultrahigh-energy Gamma-Ray Source LHAASO J2108+5157. Astrophysical Journal Letters, 2021, 919, L22.	8.3	28
31	Ultra high energy τ neutrino detection with a cosmic ray tau neutrino telescope using fluorescence/Cerenkov light technique. Journal of Physics G: Nuclear and Particle Physics, 2005, 31, 571-582.	3.6	25
32	OBSERVATION OF TeV GAMMA RAYS FROM THE UNIDENTIFIED SOURCE HESS J1841-055 WITH THE ARGO-YBJ EXPERIMENT. Astrophysical Journal, 2013, 767, 99.	4.5	25
33	Status of LHAASO updates from ARGO-YBJ. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2014, 742, 95-98.	1.6	25
34	The analog Resistive Plate Chamber detector of the ARGO-YBJ experiment. Astroparticle Physics, 2015, 67, 47-61.	4.3	25
35	MEAN INTERPLANETARY MAGNETIC FIELD MEASUREMENT USING THE ARGO-YBJ EXPERIMENT. Astrophysical Journal, 2011, 729, 113.	4.5	23
36	Measurement of the cosmic ray antiproton/proton flux ratio at TeV energies with the ARGO-YBJ detector. Physical Review D, 2012, 85, .	4.7	22

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37	Discovery of a New Gamma-Ray Source, LHAASO J0341+5258, with Emission up to 200 TeV. <i>Astrophysical Journal Letters</i> , 2021, 917, L4.	8.3	21
38	Highlights from the ARGO-YBJ experiment. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2012, 661, S50-S55.	1.6	20
39	Exploring Lorentz Invariance Violation from Ultrahigh-Energy γ Rays Observed by LHAASO. <i>Physical Review Letters</i> , 2022, 128, 051102.	7.8	19
40	A search for arrival direction clustering in the HiRes-I monocular data above 1019.5 eV. <i>Astroparticle Physics</i> , 2004, 22, 139-149.	4.3	18
41	Performance of a prototype water Cherenkov detector for LHAASO project. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2011, 644, 11-17.	1.6	18
42	Construction and on-site performance of the LHAASO WFCTA camera. <i>European Physical Journal C</i> , 2021, 81, 1.	3.9	18
43	Seasonal and Lunar Month Periods Observed in Natural Neutron Flux at High Altitude. <i>Pure and Applied Geophysics</i> , 2017, 174, 2763-2771.	1.9	17
44	Performance of LHAASO-WCDA and observation of the Crab Nebula as a standard candle *. <i>Chinese Physics C</i> , 2021, 45, 085002.	3.7	16
45	Intraday optical variability of the BL Lacertae object S5 0716+714. <i>Monthly Notices of the Royal Astronomical Society</i> , 2012, 421, 3111-3115.	4.4	14
46	THE ARGO-YBJ EXPERIMENT PROGRESSES AND FUTURE EXTENSION. <i>International Journal of Modern Physics D</i> , 2011, 20, 1713-1721.	2.1	12
47	Response of the environmental thermal neutron flux to earthquakes. <i>Journal of Environmental Radioactivity</i> , 2019, 208-209, 105981.	1.7	11
48	Cosmic-ray double-core γ -family events at ultrahigh energies. <i>Physical Review D</i> , 1997, 56, 7361-7375.	4.7	10
49	Performance of SiPMs and pre-amplifier for the wide field of view Cherenkov telescope array of LHAASO. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2018, 899, 94-100.	1.6	10
50	Absolute calibration of LHAASO WFCTA camera based on LED. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2022, 1021, 165824.	1.6	10
51	The Correlated Multi-color Optical Variations of BL Lac Object S5 0716+714. <i>Publications of the Astronomical Society of Australia</i> , 2010, 27, 296-301.	3.4	9
52	The performance of a prototype array of water Cherenkov detectors for the LHAASO project. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2013, 724, 12-19.	1.6	9
53	Calibration of the air shower energy scale of the water and air Cherenkov techniques in the LHAASO experiment. <i>Physical Review D</i> , 2021, 104, .	4.7	9
54	The Status of the ARGO Experiment at YBJ. <i>Nuclear Physics, Section B, Proceedings Supplements</i> , 2007, 166, 96-102.	0.4	8

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73	SIGNAL OF QUARK SUBSTRUCTURE IN HADRONIC INTERACTIONS AT SMALL SCATTERING ANGLES. Modern Physics Letters A, 1995, 10, 267-272.	1.2	2
74	The Cosmic Ray Tau Neutrino Telescope (CRTNT) project -tau neutrino detection using fluorescence/Cherenkov light detectors. Nuclear Physics, Section B, Proceedings Supplements, 2006, 151, 287-290.	0.4	2
75	GMF model dependence of correlations between BL Lacs and ultra high energy cosmic rays. Astroparticle Physics, 2007, 28, 82-88.	4.3	2
76	Front-end electronics and data acquisition system for imaging atmospheric Cherenkov telescopes. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2015, 795, 409-417.	1.6	2
77	LHAASO: A milestone of the cosmic ray research. Chinese Science Bulletin, 2022, 67, 1558-1566.	0.7	2
78	The long-term color variability of the BL Lac object OQ 530. Astronomy Reports, 2011, 55, 1074-1077.	0.9	1
79	Cosmic Ray Experiments in the Era of LHC. , 2011, , .		1
80	Measurement of knees of the spectra of heavy nuclei above 10 PeV with LHAASO. EPJ Web of Conferences, 2019, 208, 14002.	0.3	1
81	Measurement of the knees of proton and H&He spectra below 1 PeV. Journal of Physics: Conference Series, 2020, 1342, 012009.	0.4	1
82	Geometrical reconstruction of fluorescence events observed by the LHAASO experiment *. Chinese Physics C, 2021, 45, 045101.	3.7	1
83	A dynamic range extension system for LHAASO WCDA-1. Radiation Detection Technology and Methods, 2021, 5, 520-530.	0.8	1
84	SiPM-based Camera Research and Development for the Wide Field of View Cherenkov Telescope Array of LHAASO. , 2017, , .		1
85	Line-of-shower trigger method to lower energy threshold for GRB detection using LHAASO-WCDA. Radiation Detection Technology and Methods, 2021, 5, 531.	0.8	1
86	Search for GRB counterparts using the ARGO-YBJ experiment in shower mode. , 2008, , .		0
87	ARGO-YBJ: A MULTI-PURPOSE EXPERIMENT OPERATION FOR 5 YEARS. International Journal of Modern Physics D, 2013, 22, 1360013.	2.1	0
88	Simulating a Measurement of the 2nd Knee in the Cosmic Ray Spectrum with an Atmospheric Fluorescence Telescope Tower Array. Scientific World Journal, The, 2014, 2014, 1-6.	2.1	0
89	Highlights of the ARGO-YBJ Experiment at 4,300 m a.s.l.. Brazilian Journal of Physics, 2014, 44, 494-503.	1.4	0
90	Simulation of the Galactic Cosmic Ray Shadow of the Sun. Chinese Physics Letters, 2017, 34, 129601.	3.3	0

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91	Design and Testing of the Front-End Electronics of WCDA in LHAASO. IEEE Transactions on Nuclear Science, 2021, 68, 2257-2267.	2.0	0