

Ingomar Allekotte

List of Publications by Year in descending order

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96
papers

9,455
citations

44069

48
h-index

36028

97
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99
all docs

99
docs citations

99
times ranked

4443
citing authors

#	ARTICLE	IF	CITATIONS
1	Testing effects of Lorentz invariance violation in the propagation of astroparticles with the Pierre Auger Observatory. <i>Journal of Cosmology and Astroparticle Physics</i> , 2022, 2022, 023.	5.4	5
2	A Search for Photons with Energies Above 2×10^{17} eV Using Hybrid Data from the Low-Energy Extensions of the Pierre Auger Observatory. <i>Astrophysical Journal</i> , 2022, 933, 125.	4.5	21
3	Design, upgrade and characterization of the silicon photomultiplier front-end for the AMIGA detector at the Pierre Auger Observatory. <i>Journal of Instrumentation</i> , 2021, 16, P01026-P01026.	1.2	13
4	Calibration of the underground muon detector of the Pierre Auger Observatory. <i>Journal of Instrumentation</i> , 2021, 16, P04003.	1.2	5
5	Measurement of the Fluctuations in the Number of Muons in Extensive Air Showers with the Pierre Auger Observatory. <i>Physical Review Letters</i> , 2021, 126, 152002.	7.8	34
6	The FRAM robotic telescope for atmospheric monitoring at the Pierre Auger Observatory. <i>Journal of Instrumentation</i> , 2021, 16, P06027.	1.2	2
7	Deep-learning based reconstruction of the shower maximum X_{max} using the water-Cherenkov detectors of the Pierre Auger Observatory. <i>Journal of Instrumentation</i> , 2021, 16, P07019.	1.2	16
8	Measurement of the cosmic-ray energy spectrum above 2.5×10^{18} eV using the Pierre Auger Observatory. <i>Physical Review D</i> , 2020, 102, .	4.7	98
9	Features of the Energy Spectrum of Cosmic Rays above 2.5×10^{18} eV Using the Pierre Auger Observatory. <i>Physical Review Letters</i> , 2020, 125, 121106.	7.8	79
10	Studies on the response of a water-Cherenkov detector of the Pierre Auger Observatory to atmospheric muons using an RPC hodoscope. <i>Journal of Instrumentation</i> , 2020, 15, P09002-P09002.	1.2	5
11	Direct measurement of the muonic content of extensive air showers between 2×10^{17} and 2×10^{18} eV at the Pierre Auger Observatory. <i>European Physical Journal C</i> , 2020, 80, 1.	3.9	36
12	Reconstruction of events recorded with the surface detector of the Pierre Auger Observatory. <i>Journal of Instrumentation</i> , 2020, 15, P10021-P10021.	1.2	20
13	Search for magnetically-induced signatures in the arrival directions of ultra-high-energy cosmic rays measured at the Pierre Auger Observatory. <i>Journal of Cosmology and Astroparticle Physics</i> , 2020, 2020, 017-017.	5.4	10
14	A 3-Year Sample of Almost 1,600 Elves Recorded Above South America by the Pierre Auger Cosmic-Ray Observatory. <i>Earth and Space Science</i> , 2020, 7, e2019EA000582.	2.6	9
15	Cosmic-Ray Anisotropies in Right Ascension Measured by the Pierre Auger Observatory. <i>Astrophysical Journal</i> , 2020, 891, 142.	4.5	39
16	A Search for Ultra-high-energy Neutrinos from TXS 0506+056 Using the Pierre Auger Observatory. <i>Astrophysical Journal</i> , 2020, 902, 105.	4.5	13
17	Probing the origin of ultra-high-energy cosmic rays with neutrinos in the EeV energy range using the Pierre Auger Observatory. <i>Journal of Cosmology and Astroparticle Physics</i> , 2019, 2019, 022-022.	5.4	64
18	Data-driven estimation of the invisible energy of cosmic ray showers with the Pierre Auger Observatory. <i>Physical Review D</i> , 2019, 100, .	4.7	20

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19	Limits on point-like sources of ultra-high-energy neutrinos with the Pierre Auger Observatory. <i>Journal of Cosmology and Astroparticle Physics</i> , 2019, 2019, 004-004.	5.4	18
20	Measurement of the average shape of longitudinal profiles of cosmic-ray air showers at the Pierre Auger Observatory. <i>Journal of Cosmology and Astroparticle Physics</i> , 2019, 2019, 018-018.	5.4	10
21	An Indication of Anisotropy in Arrival Directions of Ultra-high-energy Cosmic Rays through Comparison to the Flux Pattern of Extragalactic Gamma-Ray Sources [*] . <i>Astrophysical Journal Letters</i> , 2018, 853, L29.	8.3	165
22	Large-scale Cosmic-Ray Anisotropies above 4 EeV Measured by the Pierre Auger Observatory. <i>Astrophysical Journal</i> , 2018, 868, 4.	4.5	77
23	Observation of inclined EeV air showers with the radio detector of the Pierre Auger Observatory. <i>Journal of Cosmology and Astroparticle Physics</i> , 2018, 2018, 026-026.	5.4	30
24	Impact of atmospheric effects on the energy reconstruction of air showers observed by the surface detectors of the Pierre Auger Observatory. <i>Journal of Instrumentation</i> , 2017, 12, P02006-P02006.	1.2	8
25	Combined fit of spectrum and composition data as measured by the Pierre Auger Observatory. <i>Journal of Cosmology and Astroparticle Physics</i> , 2017, 2017, 038-038.	5.4	191
26	Multi-resolution anisotropy studies of ultrahigh-energy cosmic rays detected at the Pierre Auger Observatory. <i>Journal of Cosmology and Astroparticle Physics</i> , 2017, 2017, 026-026.	5.4	14
27	Muon counting using silicon photomultipliers in the AMIGA detector of the Pierre Auger observatory. <i>Journal of Instrumentation</i> , 2017, 12, P03002-P03002.	1.2	16
28	Search for photons with energies above 10^{18} eV using the hybrid detector of the Pierre Auger Observatory. <i>Journal of Cosmology and Astroparticle Physics</i> , 2017, 2017, 009-009.	5.4	49
29	A Targeted Search for Point Sources of EeV Photons with the Pierre Auger Observatory. <i>Astrophysical Journal Letters</i> , 2017, 837, L25.	8.3	21
30	Spectral calibration of the fluorescence telescopes of the Pierre Auger Observatory. <i>Astroparticle Physics</i> , 2017, 95, 44-56.	4.3	7
31	Observation of a large-scale anisotropy in the arrival directions of cosmic rays above 8×10^{18} eV. <i>Science</i> , 2017, 357, 1266-1270.	12.6	261
32	Inferences on mass composition and tests of hadronic interactions from 0.3 to $100 \hat{A}$ EeV using the water-Cherenkov detectors of the Pierre Auger Observatory. <i>Physical Review D</i> , 2017, 96, .	4.7	82
33	Calibration of the logarithmic-periodic dipole antenna (LPDA) radio stations at the Pierre Auger Observatory using an octocopter. <i>Journal of Instrumentation</i> , 2017, 12, T10005-T10005.	1.2	21
34	Ultrahigh-energy neutrino follow-up of gravitational wave events GW150914 and GW151226 with the Pierre Auger Observatory. <i>Physical Review D</i> , 2016, 94, .	4.7	38
35	Evidence for a mixed mass composition at the \hat{A} ankle \hat{A} ™ in the cosmic-ray spectrum. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2016, 762, 288-295.	4.1	84
36	Search for ultrarelativistic magnetic monopoles with the Pierre Auger observatory. <i>Physical Review D</i> , 2016, 94, .	4.7	15

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37	Azimuthal asymmetry in the risetime of the surface detector signals of the Pierre Auger Observatory. <i>Physical Review D</i> , 2016, 93, .	4.7	21
38	Energy estimation of cosmic rays with the Engineering Radio Array of the Pierre Auger Observatory. <i>Physical Review D</i> , 2016, 93, .	4.7	80
39	Measurement of the Radiation Energy in the Radio Signal of Extensive Air Showers as a Universal Estimator of Cosmic-Ray Energy. <i>Physical Review Letters</i> , 2016, 116, 241101.	7.8	91
40	Testing Hadronic Interactions at Ultrahigh Energies with Air Showers Measured by the Pierre Auger Observatory. <i>Physical Review Letters</i> , 2016, 117, 192001.	7.8	154
41	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
42	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
43	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
44	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
45	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
46	Depth of maximum of air-shower profiles at the Pierre Auger Observatory. I. Measurements at energies above 10^{19} eV. <i>Physical Review D</i> , 2014, 90, .	4.7	266
47	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
48	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
49	A SEARCH FOR POINT SOURCES OF EeV PHOTONS. <i>Astrophysical Journal</i> , 2014, 789, 160.	4.5	29
50	Probing the radio emission from air showers with polarization measurements. <i>Physical Review D</i> , 2014, 89, .	4.7	85
51	Muons in air showers at the Pierre Auger Observatory: Measurement of atmospheric production depth. <i>Physical Review D</i> , 2014, 90, .	4.7	69
52	A TARGETED SEARCH FOR POINT SOURCES OF EeV NEUTRONS. <i>Astrophysical Journal Letters</i> , 2014, 789, L34.	8.3	14
53	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
54	Identifying clouds over the Pierre Auger Observatory using infrared satellite data. <i>Astroparticle Physics</i> , 2013, 50-52, 92-101.	4.3	8

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55	Introducing the CTA concept. <i>Astroparticle Physics</i> , 2013, 43, 3-18.	4.3	504
56	Ultrahigh Energy Neutrinos at the Pierre Auger Observatory. <i>Advances in High Energy Physics</i> , 2013, 2013, 1-18.	1.1	39
57	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
58	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
59	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
60	Measurement of the Proton-Air Cross Section at $\sqrt{s} = 57$ TeV at the Pierre Auger Observatory. <i>Physical Review Letters</i> , 2012, 109, 062002.	7.8	212
61	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
62	A SEARCH FOR POINT SOURCES OF EeV NEUTRONS. <i>Astrophysical Journal</i> , 2012, 760, 148.	4.5	27
63	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
64	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
65	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
66	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
67	Search for ultrahigh energy neutrinos in highly inclined events at the Pierre Auger Observatory. <i>Physical Review D</i> , 2011, 84, .	4.7	51
68	The Lateral Trigger Probability function for the Ultra-High Energy Cosmic Ray showers detected by the Pierre Auger Observatory. <i>Astroparticle Physics</i> , 2011, 35, 266-276.	4.3	16
69	Design concepts for the Cherenkov Telescope Array CTA: an advanced facility for ground-based high-energy gamma-ray astronomy. <i>Experimental Astronomy</i> , 2011, 32, 193-316.	3.7	640
70	The exposure of the hybrid detector of the Pierre Auger Observatory. <i>Astroparticle Physics</i> , 2011, 34, 368-381.	4.3	54
71	Search for first harmonic modulation in the right ascension distribution of cosmic rays detected at the Pierre Auger Observatory. <i>Astroparticle Physics</i> , 2011, 34, 627-639.	4.3	73
72	Advanced functionality for radio analysis in the Offline software framework of the Pierre Auger Observatory. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2011, 635, 92-102.	1.6	52

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73	A study of the effect of molecular and aerosol conditions in the atmosphere on air fluorescence measurements at the Pierre Auger Observatory. <i>Astroparticle Physics</i> , 2010, 33, 108-129.	4.3	84
74	Update on the correlation of the highest energy cosmic rays with nearby extragalactic matter. <i>Astroparticle Physics</i> , 2010, 34, 314-326.	4.3	270
75	Trigger and aperture of the surface detector array of the Pierre Auger Observatory. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2010, 613, 29-39.	1.6	151
76	The fluorescence detector of the Pierre Auger Observatory. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2010, 620, 227-251.	1.6	275
77	Measurement of the Depth of Maximum of Extensive Air Showers above 10^{18} eV. <i>Physical Review Letters</i> , 2010, 104, 091101.	7.8	429
78	Atmospheric effects on extensive air showers observed with the surface detector of the Pierre Auger observatory. <i>Astroparticle Physics</i> , 2009, 32, 89-99.	4.3	43
79	Upper limit on the cosmic-ray photon fraction at EeV energies from the Pierre Auger Observatory. <i>Astroparticle Physics</i> , 2009, 31, 399-406.	4.3	117
80	Limit on the diffuse flux of ultrahigh energy tau neutrinos with the surface detector of the Pierre Auger Observatory. <i>Physical Review D</i> , 2009, 79, .	4.7	99
81	The surface detector system of the Pierre Auger Observatory. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2008, 586, 409-420.	1.6	124
82	Use of water-Cherenkov detectors to detect Gamma Ray Bursts at the Large Aperture GRB Observatory (LAGO). <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2008, 595, 70-72.	1.6	27
83	Correlation of the highest-energy cosmic rays with the positions of nearby active galactic nuclei. <i>Astroparticle Physics</i> , 2008, 29, 188-204.	4.3	305
84	Upper limit on the cosmic-ray photon flux above 10 ¹⁹ eV using the surface detector of the Pierre Auger Observatory. <i>Astroparticle Physics</i> , 2008, 29, 243-256.	4.3	161
85	Underground muon counters as a tool for composition analyses. <i>Astroparticle Physics</i> , 2008, 29, 461-470.	4.3	31
86	Observation of the Suppression of the Flux of Cosmic Rays above 4×10^{19} eV. <i>Physical Review Letters</i> , 2008, 101, 061101.	7.8	500
87	Upper Limit on the Diffuse Flux of Ultrahigh Energy Tau Neutrinos from the Pierre Auger Observatory. <i>Physical Review Letters</i> , 2008, 100, 211101.	7.8	141
88	Sites for Gamma-ray Astronomy in Argentina. , 2008, , .		0
89	Correlation of the Highest-Energy Cosmic Rays with Nearby Extragalactic Objects. <i>Science</i> , 2007, 318, 938-943.	12.6	647
90	Acceptance and Angular Resolution of an Infill Array for the Pierre Auger Surface Detector. <i>AIP Conference Proceedings</i> , 2007, , .	0.4	0

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91	An upper limit to the photon fraction in cosmic rays above 1019eV from the Pierre Auger Observatory. <i>Astroparticle Physics</i> , 2007, 27, 155-168.	4.3	90
92	Anisotropy studies around the galactic centre at EeV energies with the Auger Observatory. <i>Astroparticle Physics</i> , 2007, 27, 244-253.	4.3	51
93	Enhancing the Pierre Auger Observatory to the $\hat{\text{a}}\text{eV}$ range: Capabilities of an Infill Surface Array. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2006, 566, 302-311.	1.6	13
94	Properties and performance of the prototype instrument for the Pierre Auger Observatory. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2004, 523, 50-95.	1.6	647
95	Site survey for the Pierre Auger observatory. <i>Journal of Physics G: Nuclear and Particle Physics</i> , 2002, 28, 1499-1509.	3.6	2
96	Partition function for the N=2 superstring on the torus. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 1990, 251, 254-259.	4.1	1