

Miroslav Palatka

List of Publications by Year in descending order

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115
papers

12,379
citations

44069

48
h-index

25787

108
g-index

118
all docs

118
docs citations

118
times ranked

10119
citing authors

#	ARTICLE	IF	CITATIONS
1	Use of a general purpose integrating sphere as a low intensity near-UV extended uniform light source. Optik, 2021, 242, 167169.	2.9	3
2	Impact of atmospheric effects on the energy reconstruction of air showers observed by the surface detectors of the Pierre Auger Observatory. Journal of Instrumentation, 2017, 12, P02006-P02006.	1.2	8
3	Combined fit of spectrum and composition data as measured by the Pierre Auger Observatory. Journal of Cosmology and Astroparticle Physics, 2017, 2017, 038-038.	5.4	191
4	Prospects for Cherenkov Telescope Array Observations of the Young Supernova Remnant RX J1713.7 \hat{a} ~3946. Astrophysical Journal, 2017, 840, 74.	4.5	14
5	Multi-resolution anisotropy studies of ultrahigh-energy cosmic rays detected at the Pierre Auger Observatory. Journal of Cosmology and Astroparticle Physics, 2017, 2017, 026-026.	5.4	14
6	Muon counting using silicon photomultipliers in the AMIGA detector of the Pierre Auger observatory. Journal of Instrumentation, 2017, 12, P03002-P03002.	1.2	16
7	Search for photons with energies above 10^{18} eV using the hybrid detector of the Pierre Auger Observatory. Journal of Cosmology and Astroparticle Physics, 2017, 2017, 009-009.	5.4	49
8	A Targeted Search for Point Sources of EeV Photons with the Pierre Auger Observatory. Astrophysical Journal Letters, 2017, 837, L25.	8.3	21
9	Multi-messenger Observations of a Binary Neutron Star Merger [*] . Astrophysical Journal Letters, 2017, 848, L12.	8.3	2,805
10	Spectral calibration of the fluorescence telescopes of the Pierre Auger Observatory. Astroparticle Physics, 2017, 95, 44-56.	4.3	7
11	Observation of a large-scale anisotropy in the arrival directions of cosmic rays above 8×10^{18} eV. Science, 2017, 357, 1266-1270.	12.6	261
12	Inferences on mass composition and tests of hadronic interactions from 0.3 to 100 EeV using the water-Cherenkov detectors of the Pierre Auger Observatory. Physical Review D, 2017, 96, .	4.7	82
13	Search for High-energy Neutrinos from Binary Neutron Star Merger GW170817 with ANTARES, IceCube, and the Pierre Auger Observatory. Astrophysical Journal Letters, 2017, 850, L35.	8.3	135
14	The FAST Project - A Next Generation UHECR Observatory. EPJ Web of Conferences, 2017, 136, 02015.	0.3	1
15	Calibration of the logarithmic-periodic dipole antenna (LPDA) radio stations at the Pierre Auger Observatory using an octocopter. Journal of Instrumentation, 2017, 12, T10005-T10005.	1.2	21
16	The prototype opto-mechanical system for the Fluorescence detector Array of Single-pixel Telescopes. Journal of Instrumentation, 2017, 12, T07001-T07001.	1.2	9
17	Ultrahigh-energy neutrino follow-up of gravitational wave events GW150914 and GW151226 with the Pierre Auger Observatory. Physical Review D, 2016, 94, .	4.7	38
18	Detection of ultra-high energy cosmic ray showers with a single-pixel fluorescence telescope. Astroparticle Physics, 2016, 74, 64-72.	4.3	26

#	ARTICLE	IF	CITATIONS
19	Evidence for a mixed mass composition at the "ankle"™ in the cosmic-ray spectrum. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2016, 762, 288-295.	4.1	84
20	Search for ultrarelativistic magnetic monopoles with the Pierre Auger observatory. Physical Review D, 2016, 94, .	4.7	15
21	Azimuthal asymmetry in the risetime of the surface detector signals of the Pierre Auger Observatory. Physical Review D, 2016, 93, .	4.7	21
22	Energy estimation of cosmic rays with the Engineering Radio Array of the Pierre Auger Observatory. Physical Review D, 2016, 93, .	4.7	80
23	Measurement of the Radiation Energy in the Radio Signal of Extensive Air Showers as a Universal Estimator of Cosmic-Ray Energy. Physical Review Letters, 2016, 116, 241101.	7.8	91
24	Testing Hadronic Interactions at Ultrahigh Energies with Air Showers Measured by the Pierre Auger Observatory. Physical Review Letters, 2016, 117, 192001.	7.8	154
25	Nanosecond-level time synchronization of autonomous radio detector stations for extensive air showers. Journal of Instrumentation, 2016, 11, P01018-P01018.	1.2	20
26	Search for correlations between the arrival directions of IceCube neutrino events and ultrahigh-energy cosmic rays detected by the Pierre Auger Observatory and the Telescope Array. Journal of Cosmology and Astroparticle Physics, 2016, 2016, 037-037.	5.4	31
27	Prototype muon detectors for the AMIGA component of the Pierre Auger Observatory. Journal of Instrumentation, 2016, 11, P02012-P02012.	1.2	38
28	The Pierre Auger Cosmic Ray Observatory. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2015, 798, 172-213.	1.6	442
29	Measurement of the cosmic ray spectrum above 4×10^{18} eV using inclined events detected with the Pierre Auger Observatory. Journal of Cosmology and Astroparticle Physics, 2015, 2015, 049-049.	5.4	20
30	All Sky Camera for the CTA Atmospheric Calibration work package. EPJ Web of Conferences, 2015, 89, 03007.	0.3	6
31	SEARCHES FOR ANISOTROPIES IN THE ARRIVAL DIRECTIONS OF THE HIGHEST ENERGY COSMIC RAYS DETECTED BY THE PIERRE AUGER OBSERVATORY. Astrophysical Journal, 2015, 804, 15.	4.5	146
32	Improved limit to the diffuse flux of ultrahigh energy neutrinos from the Pierre Auger Observatory. Physical Review D, 2015, 91, .	4.7	125
33	Muons in air showers at the Pierre Auger Observatory: Mean number in highly inclined events. Physical Review D, 2015, 91, .	4.7	152
34	Search for patterns by combining cosmic-ray energy and arrival directions at the Pierre Auger Observatory. European Physical Journal C, 2015, 75, 269.	3.9	12
35	LARGE SCALE DISTRIBUTION OF ULTRA HIGH ENERGY COSMIC RAYS DETECTED AT THE PIERRE AUGER OBSERVATORY WITH ZENITH ANGLES UP TO 80° . Astrophysical Journal, 2015, 802, 111.	4.5	49
36	The Cherenkov Telescope Array potential for the study of young supernova remnants. Astroparticle Physics, 2015, 62, 152-164.	4.3	7

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37	Depth of maximum of air-shower profiles at the Pierre Auger Observatory. I. Measurements at energies above 10^{19} eV. Physical Review D, 2014, 90, .	4.7	266
38	Depth of maximum of air-shower profiles at the Pierre Auger Observatory. II. Composition implications. Physical Review D, 2014, 90, .	4.7	213
39	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. Astrophysical Journal, 2014, 794, 172.	4.5	72
40	A SEARCH FOR POINT SOURCES OF EeV PHOTONS. Astrophysical Journal, 2014, 789, 160.	4.5	29
41	Reconstruction of inclined air showers detected with the Pierre Auger Observatory. Journal of Cosmology and Astroparticle Physics, 2014, 2014, 019-019.	5.4	49
42	Probing the radio emission from air showers with polarization measurements. Physical Review D, 2014, 89, .	4.7	85
43	Muons in air showers at the Pierre Auger Observatory: Measurement of atmospheric production depth. Physical Review D, 2014, 90, .	4.7	69
44	A TARGETED SEARCH FOR POINT SOURCES OF EeV NEUTRONS. Astrophysical Journal Letters, 2014, 789, L34.	8.3	14
45	Origin of atmospheric aerosols at the Pierre Auger Observatory using studies of air mass trajectories in South America. Atmospheric Research, 2014, 149, 120-135.	4.1	6
46	Identifying clouds over the Pierre Auger Observatory using infrared satellite data. Astroparticle Physics, 2013, 50-52, 92-101.	4.3	8
47	Introducing the CTA concept. Astroparticle Physics, 2013, 43, 3-18.	4.3	504
48	Precise measurement of the absolute fluorescence yield of the 337nm band in atmospheric gases. Astroparticle Physics, 2013, 42, 90-102.	4.3	37
49	Ultrahigh Energy Neutrinos at the Pierre Auger Observatory. Advances in High Energy Physics, 2013, 2013, 1-18.	1.1	39
50	Techniques for measuring aerosol attenuation using the Central Laser Facility at the Pierre Auger Observatory. Journal of Instrumentation, 2013, 8, P04009-P04009.	1.2	24
51	Interpretation of the depths of maximum of extensive air showers measured by the Pierre Auger Observatory. Journal of Cosmology and Astroparticle Physics, 2013, 2013, 026-026.	5.4	27
52	CONSTRAINTS ON THE ORIGIN OF COSMIC RAYS ABOVE 10^{18} eV FROM LARGE-SCALE ANISOTROPY SEARCHES IN DATA OF THE PIERRE AUGER OBSERVATORY. Astrophysical Journal Letters, 2013, 762, L13.	8.3	67
53	Bounds on the density of sources of ultra-high energy cosmic rays from the Pierre Auger Observatory. Journal of Cosmology and Astroparticle Physics, 2013, 2013, 009-009.	5.4	34
54	Status of the technologies for the production of the Cherenkov Telescope Array (CTA) mirrors. , 2013, .		8

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55	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
56	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
57	Measurement of the Proton-Air Cross Section at $s = 57 \text{ TeV}$ at the Pierre Auger Observatory. <i>Physical Review Letters</i> , 2012, 109, 062002.	7.8	212
58	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
59	A SEARCH FOR POINT SOURCES OF EeV NEUTRONS. <i>Astrophysical Journal</i> , 2012, 760, 148.	4.5	27
60	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
61	Surface microstructure of water Cherenkov detectors reflective liner: Tyvek. <i>Proceedings of SPIE</i> , 2012, , .	0.8	0
62	Application of optical elements for temporal and spatial transformation of ultra-short and ultra-intense light pulses. <i>Proceedings of SPIE</i> , 2012, , .	0.8	0
63	The rapid atmospheric monitoring system of the Pierre Auger Observatory. <i>Journal of Instrumentation</i> , 2012, 7, P09001-P09001.	1.2	24
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	Measurement of the cosmic ray energy spectrum using hybrid events of the Pierre Auger Observatory. <i>European Physical Journal Plus</i> , 2012, 127, 1.	2.6	34
66	Using Geant4 toolkit for simulations of optical systems with rough isotropic surfaces using BRDF profiles. <i>Proceedings of SPIE</i> , 2012, , .	0.8	0
67	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
68	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
69	Search for ultrahigh energy neutrinos in highly inclined events at the Pierre Auger Observatory. <i>Physical Review D</i> , 2011, 84, .	4.7	51
70	Anisotropy and chemical composition of ultra-high energy cosmic rays using arrival directions measured by the Pierre Auger Observatory. <i>Journal of Cosmology and Astroparticle Physics</i> , 2011, 2011, 022-022.	5.4	9
71	BRDF profile of Tyvek and its implementation in the Geant4 simulation toolkit. <i>Optics Express</i> , 2011, 19, 4199.	3.4	5
72	The Pierre Auger Observatory scaler mode for the study of solar activity modulation of galactic cosmic rays. <i>Journal of Instrumentation</i> , 2011, 6, P01003-P01003.	1.2	16

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73	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
74	The exposure of the hybrid detector of the Pierre Auger Observatory. <i>Astroparticle Physics</i> , 2011, 34, 368-381.	4.3	54
75	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
76	Precise measurement of the absolute yield of fluorescence photons in atmospheric gases. <i>Nuclear Physics, Section B, Proceedings Supplements</i> , 2011, 212-213, 356-361.	0.4	5
77	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
78	Precise Measurement of the Absolute Fluorescence Yield. , 2011, , .		0
79	The effect of the geomagnetic field on cosmic ray energy estimates and large scale anisotropy searches on data from the Pierre Auger Observatory. <i>Journal of Cosmology and Astroparticle Physics</i> , 2011, 2011, 022-022.	5.4	24
80	Outline of the ELI-Beamlines facility. <i>Proceedings of SPIE</i> , 2011, , .	0.8	17
81	Mirror segments for large mirror systems of weak optical signals detectors for UV spectral range. <i>Proceedings of SPIE</i> , 2011, , .	0.8	1
82	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
83	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
84	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
85	Measurement of the energy spectrum of cosmic rays above 1018 eV using the Pierre Auger Observatory. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2010, 685, 239-246.	4.1	357
86	Shape parameters measurement of ultralight mirrors. <i>Optik</i> , 2010, 121, 1881-1884.	2.9	2
87	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
88	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
89	Temperature chamber for measurement of fluorescence yield and nitrogen spectrum in the project AIRFLY. <i>Optik</i> , 2009, 120, 619-622.	2.9	0
90	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

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91	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
92	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
93	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
94	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
95	A novel method for the absolute fluorescence yield measurement by AIRFLY. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2008, 597, 55-60.	1.6	18
96	Temperature and humidity dependence of air fluorescence yield measured by AIRFLY. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2008, 597, 50-54.	1.6	30
97	Energy dependence of air fluorescence yield measured by AIRFLY. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2008, 597, 46-49.	1.6	18
98	Spectrally resolved pressure dependence measurements of air fluorescence emission with AIRFLY. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2008, 597, 41-45.	1.6	23
99	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
100	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
101	Correlation of the Highest-Energy Cosmic Rays with Nearby Extragalactic Objects. <i>Science</i> , 2007, 318, 938-943.	12.6	647
102	<title>Chamber with controlled atmosphere for fluorescence measurements in the project AIRFLY</title>. , 2007, , .		0
103	An upper limit to the photon fraction in cosmic rays above 10 ¹⁹ eV from the Pierre Auger Observatory. <i>Astroparticle Physics</i> , 2007, 27, 155-168.	4.3	90
104	Measurement of the pressure dependence of air fluorescence emission induced by electrons. <i>Astroparticle Physics</i> , 2007, 28, 41-57.	4.3	91
105	Anisotropy studies around the galactic centre at EeV energies with the Auger Observatory. <i>Astroparticle Physics</i> , 2007, 27, 244-253.	4.3	51
106	The bright optical flash from GRB 060117. <i>Astronomy and Astrophysics</i> , 2006, 454, L119-L122.	5.1	27
107	AIRFLY: Measurement of the Air Fluorescence Radiation Induced by Electrons. <i>Nuclear Physics, Section B, Proceedings Supplements</i> , 2006, 150, 186-189.	0.4	6
108	AIRFLY: Measurement of the uorescence yield in atmospheric gases. <i>European Physical Journal D</i> , 2006, 56, A361-A367.	0.4	6

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109	Properties and performance of the prototype instrument for the Pierre Auger Observatory. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2004, 523, 50-95.	1.6	647
110	The optical layout of the fluorescence detector of the Pierre Auger Observatory. , 2003, , .		0
111	Thin glass mirrors for the Pierre Auger project. , 2003, , .		0
112	CELESTE: an atmospheric Cherenkov telescope for high energy gamma astrophysics. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2002, 490, 71-89.	1.6	25
113	<title>Optical filters designed for the fluorescence detector of the AUGER project with transmittance in the range of 300 nm to 420 nm</title>. , 2001, , .		0
114	Prototype tests for the CELESTE solar array gamma-ray telescope. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1998, 412, 329-341.	1.6	14
115	The CAT imaging telescope for very-high-energy gamma-ray astronomy. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1998, 416, 278-292.	1.6	63