Mario Buscemi

List of Publications by Year
in descending order

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86	7,096	117625	56724
papers	citations	34 h-index	83 g-index

88	88	88	9369
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Multi-messenger Observations of a Binary Neutron Star Merger[*]. Astrophysical Journal Letters, 2017, 848, L12.	8.3	2,805
2	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
3	Depth of maximum of air-shower profiles at the Pierre Auger Observatory. I. Measurements at energies above<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mn>1</mml:mn><mml:msup><mml:mrow><mml:mn>0</mml:mn></mml:mrow><mml:mrow><mml:mn>1</mml:mn><mml:mn>8</mml:mn></mml:mrow></mml:msup><mml:mspace width="0.2em"></mml:mspace><mml:mi>eV</mml:mi></mml:mrow></mml:math>. Physical Review D, 2014, 90, .	4.7	266
4	Observation of a large-scale anisotropy in the arrival directions of cosmic rays above 8 Ã— 10 ¹⁸ eV. Science, 2017, 357, 1266-1270.	12.6	261
5	Depth of maximum of air-shower profiles at the Pierre Auger Observatory. II. Composition implications. Physical Review D, 2014, 90, .	4.7	213
6	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
7	An Indication of Anisotropy in Arrival Directions of Ultra-high-energy Cosmic Rays through Comparison to the Flux Pattern of Extragalactic Gamma-Ray Sources[*]. Astrophysical Journal Letters, 2018, 853, L29.	8.3	165
8	Testing Hadronic Interactions at Ultrahigh Energies with Air Showers Measured by the Pierre Auger Observatory. Physical Review Letters, 2016, 117, 192001.	7.8	154
9	Muons in air showers at the Pierre Auger Observatory: Mean number in highly inclined events. Physical Review D, 2015, 91, .	4.7	152
10	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
11	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
12	Improved limit to the diffuse flux of ultrahigh energy neutrinos from the Pierre Auger Observatory. Physical Review D, 2015, 91, .	4.7	125
13	Measurement of the cosmic-ray energy spectrum above <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mn>2.5</mml:mn><mml:mo>Ã—</mml:mo><mml:msup><mml:mn>10</mml:mn><mml:mn>18</mml:mn></mml:msup><mml:mspace width="0.2em"></mml:mspace><mml:mi>eV</mml:mi></mml:math> using the Pierre Auger Observatory. Physical Review D, 2020, 102, .	4.7	98
14	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
15	Probing the radio emission from air showers with polarization measurements. Physical Review D, 2014, 89, .	4.7	85
16	Evidence for a mixed mass composition at the â€˜ankleâ€™ in the cosmic-ray spectrum. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2016, 762, 288-295.	4.1	84
17	Inferences on mass composition and tests of hadronic interactions from 0.3 to 100ÂEeV using the water-Cherenkov detectors of the Pierre Auger Observatory. Physical Review D, 2017, 96, .	4.7	82
18	Energy estimation of cosmic rays with the Engineering Radio Array of the Pierre Auger Observatory. Physical Review D, 2016, 93, .	4.7	80

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19	Features of the Energy Spectrum of Cosmic Rays above <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mn>2.5</mml:mn><mml:mo>Ã—</mml:mo><mml:msup><mml:mn>10</mml:mn><mml:mn>18</mml:mn></ Using the Pierre Auger Observatory. Physical Review Letters, 2020, 125, 121106.	7.8	79
20	Large-scale Cosmic-Ray Anisotropies above 4 EeV Measured by the Pierre Auger Observatory. Astrophysical Journal, 2018, 868, 4.	4.5	77
21	SEARCHES FOR LARGE-SCALE ANISOTROPY IN THE ARRIVAL DIRECTIONS OF COSMIC RAYS DETECTED ABOVE ENERGY OF 10¹⁹eV AT THE PIERRE AUGER OBSERVATORY AND THE TELESCOPE ARRAY. Astrophysical Journal, 2014, 794, 172.	4.5	72
22	Muons in air showers at the Pierre Auger Observatory: Measurement of atmospheric production depth. Physical Review D, 2014, 90, .	4.7	69
23	Probing the origin of ultra-high-energy cosmic rays with neutrinos in the EeV energy range using the Pierre Auger Observatory. Journal of Cosmology and Astroparticle Physics, 2019, 2019, 022-022.	5.4	64
24	Reconstruction of inclined air showers detected with the Pierre Auger Observatory. Journal of Cosmology and Astroparticle Physics, 2014, 2014, 019-019.	5.4	49
25	LARGE SCALE DISTRIBUTION OF ULTRA HIGH ENERGY COSMIC RAYS DETECTED AT THE PIERRE AUGER OBSERVATORY WITH ZENITH ANGLES UP TO 80Â°. Astrophysical Journal, 2015, 802, 111.	4.5	49
26	Search for photons with energies above 10¹⁸eV using the hybrid detector of the Pierre Auger Observatory. Journal of Cosmology and Astroparticle Physics, 2017, 2017, 009-009.	5.4	49
27	The energy spectrum of cosmic rays beyond the turn-down around $$varvec{10^{17}}$$ÂeV as measured with the surface detector of the Pierre Auger Observatory. European Physical Journal C, 2021, 81, 1.	3.9	44
28	Cosmic-Ray Anisotropies in Right Ascension Measured by the Pierre Auger Observatory. Astrophysical Journal, 2020, 891, 142.	4.5	39
29	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
30	Prototype muon detectors for the AMIGA component of the Pierre Auger Observatory. Journal of Instrumentation, 2016, 11, P02012-P02012.	1.2	38
31	Direct measurement of the muonic content of extensive air showers between $$mathbf { 2imes 10^{17}}$$ and $$mathbf {2imes 10^{18}}~$$eV at the Pierre Auger Observatory. European Physical Journal C, 2020, 80, 1.	3.9	36
32	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
33	Optimization of the JUNO liquid scintillator composition using a Daya Bay antineutrino detector. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2021, 988, 164823.	1.6	34
34	Measurement of the Fluctuations in the Number of Muons in Extensive Air Showers with the Pierre Auger Observatory. Physical Review Letters, 2021, 126, 152002.	7.8	34
35	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
36	Observation of inclined EeV air showers with the radio detector of the Pierre Auger Observatory. Journal of Cosmology and Astroparticle Physics, 2018, 2018, 026-026.	5.4	30

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37	A SEARCH FOR POINT SOURCES OF EeV PHOTONS. Astrophysical Journal, 2014, 789, 160.	4.5	29
38	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
39	Feasibility and physics potential of detecting ⁸B solar neutrinos at JUNO *. Chinese Physics C, 2021, 45, 023004.	3.7	26
40	Results of a self-triggered prototype system for radio-detection of extensive air showers at the Pierre Auger Observatory. Journal of Instrumentation, 2012, 7, P11023-P11023.	1.2	24
41	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
42	Azimuthal asymmetry in the risetime of the surface detector signals of the Pierre Auger Observatory. Physical Review D, 2016, 93, .	4.7	21
43	A Targeted Search for Point Sources of EeV Photons with the Pierre Auger Observatory. Astrophysical Journal Letters, 2017, 837, L25.	8.3	21
44	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
45	A Search for Photons with Energies Above 2 Ã— 10¹⁷ eV Using Hybrid Data from the Low-Energy Extensions of the Pierre Auger Observatory. Astrophysical Journal, 2022, 933, 125.	4.5	21
46	Measurement of the cosmic ray spectrum above 4 Ã— 10¹⁸eV using inclined events detected with the Pierre Auger Observatory. Journal of Cosmology and Astroparticle Physics, 2015, 2015, 049-049.	5.4	20
47	Nanosecond-level time synchronization of autonomous radio detector stations for extensive air showers. Journal of Instrumentation, 2016, 11, P01018-P01018.	1.2	20
48	Data-driven estimation of the invisible energy of cosmic ray showers with the Pierre Auger Observatory. Physical Review D, 2019, 100, .	4.7	20
49	Reconstruction of events recorded with the surface detector of the Pierre Auger Observatory. Journal of Instrumentation, 2020, 15, P10021-P10021.	1.2	20
50	Limits on point-like sources of ultra-high-energy neutrinos with the Pierre Auger Observatory. Journal of Cosmology and Astroparticle Physics, 2019, 2019, 004-004.	5.4	18
51	Distillation and stripping pilot plants for the JUNO neutrino detector: Design, operations and reliability. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2019, 925, 6-17.	1.6	17
52	Muon counting using silicon photomultipliers in the AMIGA detector of the Pierre Auger observatory. Journal of Instrumentation, 2017, 12, P03002-P03002.	1.2	16
53	GIGJ: A Crustal Gravity Model of the Guangdong Province for Predicting the Geoneutrino Signal at the JUNO Experiment. Journal of Geophysical Research: Solid Earth, 2019, 124, 4231-4249.	3.4	16
54	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

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55	Search for ultrarelativistic magnetic monopoles with the Pierre Auger observatory. Physical Review D, 2016, 94, .	4.7	15
56	Nanoseconds Timing System Based on IEEE 1588 FPGA Implementation. IEEE Transactions on Nuclear Science, 2019, 66, 1151-1158.	2.0	15
57	A TARGETED SEARCH FOR POINT SOURCES OF EeV NEUTRONS. Astrophysical Journal Letters, 2014, 789, L34.	8.3	14
58	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
59	Design, upgrade and characterization of the silicon photomultiplier front-end for the AMIGA detector at the Pierre Auger Observatory. Journal of Instrumentation, 2021, 16, P01026-P01026.	1.2	13
60	A Search for Ultra-high-energy Neutrinos from TXS 0506+056 Using the Pierre Auger Observatory. Astrophysical Journal, 2020, 902, 105.	4.5	13
61	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
62	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
63	JUNO sensitivity to low energy atmospheric neutrino spectra. European Physical Journal C, 2021, 81, 1.	3.9	11
64	Measurement of the average shape of longitudinal profiles of cosmic-ray air showers at the Pierre Auger Observatory. Journal of Cosmology and Astroparticle Physics, 2019, 2019, 018-018.	5.4	10
65	Search for magnetically-induced signatures in the arrival directions of ultra-high-energy cosmic rays measured at the Pierre Auger Observatory. Journal of Cosmology and Astroparticle Physics, 2020, 2020, 017-017.	5.4	10
66	A 3â€Year Sample of Almost 1,600 Elves Recorded Above South America by the Pierre Auger Cosmicâ€Ray Observatory. Earth and Space Science, 2020, 7, e2019EA000582.	2.6	9
67	Identifying clouds over the Pierre Auger Observatory using infrared satellite data. Astroparticle Physics, 2013, 50-52, 92-101.	4.3	8
68	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
69	FARCOS, a new array for femtoscopy and correlation spectroscopy. EPJ Web of Conferences, 2012, 31, 00035.	0.3	7
70	Spectral calibration of the fluorescence telescopes of the Pierre Auger Observatory. Astroparticle Physics, 2017, 95, 44-56.	4.3	7
71	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
72	Studies on the response of a water-Cherenkov detector of the Pierre Auger Observatory to atmospheric muons using an RPC hodoscope. Journal of Instrumentation, 2020, 15, P09002-P09002.	1.2	5

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73	Calibration of the underground muon detector of the Pierre Auger Observatory. Journal of Instrumentation, 2021, 16, P04003.	1.2	5
74	Testing effects of Lorentz invariance violation in the propagation of astroparticles with the Pierre Auger Observatory. Journal of Cosmology and Astroparticle Physics, 2022, 2022, 023.	5.4	5
75	Charge reconstruction in large-area photomultipliers. Journal of Instrumentation, 2018, 13, P02008-P02008.	1.2	3
76	A facility to validate photomultipliers for the upgrade of the Pierre Auger Observatory.. Journal of Instrumentation, 2020, 15, P07011-P07011.	1.2	3
77	Design and implementation of the AMIGA embedded system for data acquisition. Journal of Instrumentation, 2021, 16, T07008.	1.2	3
78	The Pierre Auger Observatory status and latest results. EPJ Web of Conferences, 2017, 136, 02017.	0.3	2
79	Emission of fragments in Ca+Ca reactions at 25 MeV/nucleon. Journal of Physics: Conference Series, 2013, 420, 012094.	0.4	1
80	ARCADE: Description of the project and setup of the Lidar/AMT system. EPJ Web of Conferences, 2015, 89, 03010.	0.3	1
81	A laser-based system for a fast and accurate measurement of gain and linearity of photomultipliers. Journal of Instrumentation, 2018, 13, T01007-T01007.	1.2	1
82	Use of fragmentation beams at LNS with CHIMERA detector. EPJ Web of Conferences, 2012, 31, 00036.	0.3	0
83	N/Z effects on40,48Ca+40,48Ca reactions at 25 MeV/nucleon. EPJ Web of Conferences, 2012, 31, 00016.	0.3	0
84	Exploiting the radio signal from air showers: the AERA progress. EPJ Web of Conferences, 2017, 136, 02013.	0.3	0
85	Astrophysical interpretation of Pierre Auger Observatory measurements of the UHECR energy spectrum and mass composition. EPJ Web of Conferences, 2017, 136, 02002.	0.3	0
86	The Pierre Auger Observatory: latest results and future perspectives. EPJ Web of Conferences, 2018, 182, 02023.	0.3	0