

AUGER group publications (July 2017- December 2019)

- [1] **Pierre Auger** Collaboration, A. Aab et al., “Cosmic-ray anisotropies in right ascension measured by the Pierre Auger Observatory”, [arXiv:2002.06172](https://arxiv.org/abs/2002.06172).
- [2] “The Pierre Auger Observatory: Contributions to the 36th International Cosmic Ray Conference (ICRC 2019)”. 2019.
- [3] **Pierre Auger** Collaboration, A. Aab et al., “Probing the origin of ultra-high-energy cosmic rays with neutrinos in the EeV energy range using the Pierre Auger Observatory”, *JCAP* **1910** (2019), no. 10, 022, [arXiv:1906.07422](https://arxiv.org/abs/1906.07422). doi:[10.1088/1475-7516/2019/10/022](https://doi.org/10.1088/1475-7516/2019/10/022).
- [4] **Pierre Auger** Collaboration, A. Aab et al., “Limits on point-like sources of ultra-high-energy neutrinos with the Pierre Auger Observatory”, *JCAP* **1911** (2019), no. 11, 004, [arXiv:1906.07419](https://arxiv.org/abs/1906.07419). doi:[10.1088/1475-7516/2019/11/004](https://doi.org/10.1088/1475-7516/2019/11/004).
- [5] **Pierre Auger** Collaboration, A. Aab et al., “Multi-Messenger Physics with the Pierre Auger Observatory”, *Front. Astron. Space Sci.* **6** (2019) 24, [arXiv:1904.11918](https://arxiv.org/abs/1904.11918). doi:[10.3389/fspas.2019.00024](https://doi.org/10.3389/fspas.2019.00024).
- [6] **Pierre Auger** Collaboration, A. Aab et al., “Data-driven estimation of the invisible energy of cosmic ray showers with the Pierre Auger Observatory”, *Phys. Rev.* **D100** (2019), no. 8, 082003, [arXiv:1901.08040](https://arxiv.org/abs/1901.08040). doi:[10.1103/PhysRevD.100.082003](https://doi.org/10.1103/PhysRevD.100.082003).
- [7] **Pierre Auger** Collaboration, A. Aab et al., “Measurement of the average shape of longitudinal profiles of cosmic-ray air showers at the Pierre Auger Observatory”, *JCAP* **1903** (2019), no. 03, 018, [arXiv:1811.04660](https://arxiv.org/abs/1811.04660). doi:[10.1088/1475-7516/2019/03/018](https://doi.org/10.1088/1475-7516/2019/03/018).
- [8] **Pierre Auger** Collaboration, A. Aab et al., “Large-scale cosmic-ray anisotropies above 4 EeV measured by the Pierre Auger Observatory”, *Astrophys. J.* **868** (2018), no. 1, 4, [arXiv:1808.03579](https://arxiv.org/abs/1808.03579). doi:[10.3847/1538-4357/aae689](https://doi.org/10.3847/1538-4357/aae689).
- [9] J. Alvarez-Muniz et al., “The AMY (Air Microwave Yield) experiment to measure the GHz emission from air shower plasma”, in *6th International Workshop on Acoustic and Radio EeV Neutrino Detection Activities (ARENA 2014) Annapolis, MD, June 9-12, 2014*. 2018. [arXiv:1807.08174](https://arxiv.org/abs/1807.08174).
- [10] **Pierre Auger** Collaboration, A. Aab et al., “Observation of inclined EeV air showers with the radio detector of the Pierre Auger Observatory”, *JCAP* **1810** (2018), no. 10, 026, [arXiv:1806.05386](https://arxiv.org/abs/1806.05386). doi:[10.1088/1475-7516/2018/10/026](https://doi.org/10.1088/1475-7516/2018/10/026).
- [11] **Pierre Auger** Collaboration, A. Aab et al., “An Indication of anisotropy in arrival directions of ultra-high-energy cosmic rays through comparison to the flux pattern

- of extragalactic gamma-ray sources”, *Astrophys. J.* **853** (2018), no. 2, L29, arXiv:1801.06160. doi:10.3847/2041-8213/aaa66d.
- [12] **Pierre Auger** Collaboration, A. Aab et al., “Highlights from the Pierre Auger Observatory”, *PoS ICRC2017* (2018) 1102, arXiv:1710.09478. [35,1102(2017)]. doi:10.22323/1.301.1102.
- [13] **Pierre Auger** Collaboration, A. Aab et al., “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”, *Phys. Rev.* **D96** (2017), no. 12, 122003, arXiv:1710.07249. doi:10.1103/PhysRevD.96.122003.
- [14] **ANTARES, IceCube, Pierre Auger, LIGO Scientific, Virgo** Collaboration, A. Albert et al., “Search for High-energy Neutrinos from Binary Neutron Star Merger GW170817 with ANTARES, IceCube, and the Pierre Auger Observatory”, *Astrophys. J.* **850** (2017), no. 2, L35, arXiv:1710.05839. doi:10.3847/2041-8213/aa9aed.
- [15] **LIGO Scientific, Virgo, Fermi GBM, INTEGRAL, IceCube, AstroSat Cadmium Zinc Telluride Imager Team, IPN, Insight-Hxmt, ANTARES, Swift, AGILE Team, 1M2H Team, Dark Energy Camera GW-EM, DES, DLT40, GRAWITA, Fermi-LAT, ATCA, ASKAP, Las Cumbres Observatory Group, OzGrav, DWF (Deeper Wider Faster Program), AST3, CAASTRO, VINROUGE, MASTER, J-GEM, GROWTH, JAGWAR, CaltechNRAO, TTU-NRAO, NuSTAR, Pan-STARRS, MAXI Team, TZAC Consortium, KU, Nordic Optical Telescope, ePESSTO, GROND, Texas Tech University, SALT Group, TOROS, BOOTES, MWA, CALET, IKI-GW Follow-up, H.E.S.S., LOFAR, LWA, HAWC, Pierre Auger, ALMA, Euro VLBI Team, Pi of Sky, Chandra Team at McGill University, DFN, ATLAS Telescopes, High Time Resolution Universe Survey, RIMAS, RATIR, SKA South Africa/MeerKAT Collaboration, B. P. Abbott et al., “Multi-messenger Observations of a Binary Neutron Star Merger”, *Astrophys. J.* **848** (2017), no. 2, L12, arXiv:1710.05833. doi:10.3847/2041-8213/aa91c9.**
- [16] R. Gaïor et al., “GIGAS: a set of microwave sensor arrays to detect molecular Bremsstrahlung radiation from extensive air shower”, *Nucl. Instrum. Meth.* **A888** (2018) 153–162, arXiv:1710.02483. doi:10.1016/j.nima.2018.01.055.
- [17] **Pierre Auger** Collaboration, A. Aab et al., “Observation of a Large-scale Anisotropy in the Arrival Directions of Cosmic Rays above 8×10^{18} eV”, *Science* **357** (2017), no. 6537, 1266–1270, arXiv:1709.07321. doi:10.1126/science.aan4338.
- [18] **Pierre Auger** Collaboration, A. Aab et al., “Spectral Calibration of the Fluorescence Telescopes of the Pierre Auger Observatory”, *Astropart. Phys.* **95** (2017) 44–56, arXiv:1709.01537. doi:10.1016/j.astropartphys.2017.09.001.
- [19] **Pierre Auger** Collaboration, A. Aab et al., “Muon counting using silicon photomultipliers in the AMIGA detector of the Pierre Auger observatory”, *JINST*

12 (2017), no. 03, P03002, arXiv:1703.06193.
doi:10.1088/1748-0221/12/03/P03002.

- [20] **Pierre Auger** Collaboration, A. Aab et al., “Impact of Atmospheric Effects on the Energy Reconstruction of Air Showers Observed by the Surface Detectors of the Pierre Auger Observatory”, *JINST* **12** (2017), no. 02, P02006, arXiv:1702.02835.
doi:10.1088/1748-0221/12/02/P02006.
- [21] **Pierre Auger** Collaboration, A. Aab et al., “Calibration of the logarithmic-periodic dipole antenna (LPDA) radio stations at the Pierre Auger Observatory using an octocopter”, *JINST* **12** (2017), no. 10, T10005,
arXiv:1702.01392. doi:10.1088/1748-0221/12/10/T10005.
- [22] **Pierre Auger** Collaboration, A. Aab et al., “Combined fit of spectrum and composition data as measured by the Pierre Auger Observatory”, *JCAP* **1704** (2017), no. 04, 038, arXiv:1612.07155. [Erratum: JCAP1803,no.03,E02(2018)].
doi:10.1088/1475-7516/2018/03/E02, 10.1088/1475-7516/2017/04/038.
- [23] **Pierre Auger** Collaboration, A. Aab et al., “A targeted search for point sources of EeV photons with the Pierre Auger Observatory”, *Astrophys. J.* **837** (2017), no. 2, L25, arXiv:1612.04155. doi:10.3847/2041-8213/aa61a5.
- [24] **Pierre Auger** Collaboration, A. Aab et al., “Search for photons with energies above 10^{18} eV using the hybrid detector of the Pierre Auger Observatory”, *JCAP* **1704** (2017), no. 04, 009, arXiv:1612.01517.
doi:10.1088/1475-7516/2017/04/009.
- [25] **Pierre Auger** Collaboration, A. Aab et al., “Multi-resolution anisotropy studies of ultrahigh-energy cosmic rays detected at the Pierre Auger Observatory”, *JCAP* **1706** (2017) 026, arXiv:1611.06812. doi:10.1088/1475-7516/2017/06/026.