

## Auger group publications (January 2015-June 2017)

- [1] A. Aab et al. (Pierre Auger Collaboration). “A targeted search for point sources of EeV photons with the Pierre Auger Observatory”. *Astrophys. J.* 837.2 (2017), p. L25. arXiv: [1612.04155 \[astro-ph.HE\]](#).
- [2] A. Aab et al. (Pierre Auger Collaboration). “Combined fit of spectrum and composition data as measured by the Pierre Auger Observatory”. *JCAP* 1704.04 (2017), p. 038. arXiv: [1612.07155 \[astro-ph.HE\]](#).
- [3] A. Aab et al. (Pierre Auger Collaboration). “Impact of Atmospheric Effects on the Energy Reconstruction of Air Showers Observed by the Surface Detectors of the Pierre Auger Observatory”. *JINST* 12.02 (2017), P02006. arXiv: [1702.02835 \[astro-ph.IM\]](#).
- [4] A. Aab et al. (Pierre Auger Collaboration). “Muon counting using silicon photomultipliers in the AMIGA detector of the Pierre Auger observatory”. *JINST* 12.03 (2017), P03002. arXiv: [1703.06193 \[astro-ph.IM\]](#).
- [5] A. Aab et al. (Pierre Auger Collaboration). “Search for photons with energies above  $10^{18}$  eV using the hybrid detector of the Pierre Auger Observatory”. *JCAP* 1704.04 (2017), p. 009. arXiv: [1612.01517 \[astro-ph.HE\]](#).
- [6] A. Aab et al. (Pierre Auger Collaboration). “Azimuthal Asymmetry in the Risetime of the Surface Detector Signals of the Pierre Auger Observatory”. *Phys. Rev.* D93.7 (2016), p. 072006. arXiv: [1604.00978 \[astro-ph.HE\]](#).
- [7] A. Aab et al. (Pierre Auger Collaboration). “Energy Estimation of Cosmic Rays with the Engineering Radio Array of the Pierre Auger Observatory”. *Phys. Rev.* D93.12 (2016), p. 122005. arXiv: [1508.04267 \[astro-ph.HE\]](#).
- [8] A. Aab et al. (Pierre Auger Collaboration). “Evidence for a mixed mass composition at the ‘ankle’ in the cosmic-ray spectrum”. *Phys. Lett.* B762 (2016), pp. 288–295. arXiv: [1609.08567 \[astro-ph.HE\]](#).
- [9] A. Aab et al. (Pierre Auger Collaboration). “Measurement of the Radiation Energy in the Radio Signal of Extensive Air Showers as a Universal Estimator of Cosmic-Ray Energy”. *Phys. Rev. Lett.* 116.24 (2016), p. 241101. arXiv: [1605.02564 \[astro-ph.HE\]](#).
- [10] A. Aab et al. (Pierre Auger Collaboration). “Nanosecond-level time synchronization of autonomous radio detector stations for extensive air showers”. *JINST* 11.01 (2016), P01018. arXiv: [1512.02216 \[physics.ins-det\]](#).
- [11] A. Aab et al. (Pierre Auger Collaboration). “Prototype muon detectors for the AMIGA component of the Pierre Auger Observatory”. *JINST* 11.02 (2016), P02012. arXiv: [1605.01625 \[physics.ins-det\]](#).
- [12] A. Aab et al. (Pierre Auger Collaboration). “Search for ultrarelativistic magnetic monopoles with the Pierre Auger Observatory”. *Phys. Rev.* D94.8 (2016), p. 082002. arXiv: [1609.04451 \[astro-ph.HE\]](#).
- [13] A. Aab et al. (Pierre Auger Collaboration). “Testing Hadronic Interactions at Ultrahigh Energies with Air Showers Measured by the Pierre Auger Observatory”. *Phys. Rev. Lett.* 117.19 (2016), p. 192001. arXiv: [1610.08509 \[hep-ex\]](#).
- [14] A. Aab et al. (Pierre Auger Collaboration). “Ultrahigh-energy neutrino follow-up of gravitational wave events GW150914 and GW151226 with the Pierre Auger Observatory”. *Phys. Rev.* D94.12 (2016), p. 122007. arXiv: [1608.07378 \[astro-ph.HE\]](#).
- [15] M. G. Aartsen et al. (IceCube, Pierre Auger, Telescope Array Collaboration). “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”. *JCAP* 1601.01 (2016), p. 037. arXiv: [1511.09408 \[astro-ph.HE\]](#).
- [16] I. Al Samarai et al. “Molecular Bremsstrahlung Radiation at GHz Frequencies in Air”. *Phys. Rev.* D93.5 (2016), p. 052004. arXiv: [1601.00551 \[astro-ph.IM\]](#).
- [17] P. Billoir, M. Settimo, and M. Blanco. “Exploiting the geomagnetic distortion of inclined atmospheric showers”. *Astropart. Phys.* 74 (2016), pp. 14–26. arXiv: [1508.04354 \[astro-ph.IM\]](#).

- [18] A. Aab et al. (Pierre Auger Collaboration). “Improved limit to the diffuse flux of ultrahigh energy neutrinos from the Pierre Auger Observatory”. *Phys. Rev.* D91.9 (2015), p. 092008. arXiv: [1504.05397 \[astro-ph.HE\]](#).
- [19] A. Aab et al. (Pierre Auger Collaboration). “Large Scale Distribution of Ultra High Energy Cosmic Rays Detected at the Pierre Auger Observatory With Zenith Angles up to  $80^\circ$ ”. *Astrophys. J.* 802.2 (2015), p. 111. arXiv: [1411.6953 \[astro-ph.HE\]](#).
- [20] A. Aab et al. (Pierre Auger Collaboration). “Measurement of the cosmic ray spectrum above  $4 \times 10^{18}$  eV using inclined events detected with the Pierre Auger Observatory”. *JCAP* 1508 (2015), p. 049. arXiv: [1503.07786 \[astro-ph.HE\]](#).
- [21] A. Aab et al. (Pierre Auger Collaboration). “Muons in air showers at the Pierre Auger Observatory: Mean number in highly inclined events”. *Phys. Rev.* D91.3 (2015). [Erratum: *Phys. Rev.*D91,no.5,059901(2015)], p. 032003. arXiv: [1408.1421 \[astro-ph.HE\]](#).
- [22] A. Aab et al. (Pierre Auger Collaboration). “Search for patterns by combining cosmic-ray energy and arrival directions at the Pierre Auger Observatory”. *Eur. Phys. J.* C75.6 (2015), p. 269. arXiv: [1410.0515 \[astro-ph.HE\]](#).
- [23] A. Aab et al. (Pierre Auger Collaboration). “Searches for Anisotropies in the Arrival Directions of the Highest Energy Cosmic Rays Detected by the Pierre Auger Observatory”. *Astrophys. J.* 804.1 (2015), p. 15. arXiv: [1411.6111 \[astro-ph.HE\]](#).
- [24] A. Aab et al. (Pierre Auger Collaboration). “The Pierre Auger Cosmic Ray Observatory”. *Nucl. Instrum. Meth.* A798 (2015), pp. 172–213. arXiv: [1502.01323 \[astro-ph.IM\]](#).