

James Watson Cronin

Bibliography

- Abashian, A., Cool, R., & Cronin, J. W. (1956). Neutron and proton distribution in Pb [12]. *Physical Review*, 104(3), 855–856. <https://doi.org/10.1103/PhysRev.104.855>
- Cronin, J. W. (1956). Excitation functions and angular distributions of alpha particles leading to the ground and first excited states of Be7 in the reaction B10(p, α)Be7*. *Physical Review*, 101(1), 298–307. <https://doi.org/10.1103/PhysRev.101.298>
- Brown, J. L., Glaser, D. A., Meyer, D. I., Perl, M. L., Velde, J. V., & Cronin, J. W. (1957). Charge independence and hyperon production [6]. *Physical Review*, 107(3), 906–908. <https://doi.org/10.1103/PhysRev.107.906>
- Cronin, J. W., Cool, R., & Abashian, A. (1957). Cross sections of nuclei for high-energy pions. *Physical Review*, 107(4), 1121–1130. <https://doi.org/10.1103/PhysRev.107.1121>
- Cool, R. L., Cork, B., Cronin, J. W., & Wenzel, W. A. (1959). Asymmetry in the decay of $I^\pm$ hyperons. *Physical Review*, 114(3), 912–920. <https://doi.org/10.1103/PhysRev.114.912>
- Cork, B., Kerth, L., Wenzel, W. A., Cronin, J. W., & Cool, R. L. (1960). Decay asymmetry of $+$ and Λ^0 hyperons. *Physical Review*, 120(3), 1000–1004. <https://doi.org/10.1103/PhysRev.120.1000>
- Cronin, J. W. (1960). Numerical evaluation of the pion-nucleon forward scattering amplitude. *Physical Review*, 118(3), 824–827. <https://doi.org/10.1103/PhysRev.118.824>
- Cronin, J. W. (1962). Spark chambers state of the art. *IRE Transactions on Nuclear Science*, 9(3), 247–255. <https://doi.org/10.1109/TNS2.1962.4316003>
- Cronin, J. W., Engels, E., Pyka, M., & Roth, R. (1962). Electron showers in a lead plate spark chamber. *Review of Scientific Instruments*, 33(9), 946–947. <https://doi.org/10.1063/1.1718035>
- Engels, E., Roth, D., Cronin, J., & Pyka, M. (1962). Ionization density effects in spark chambers. *IRE Transactions on Nuclear Science*, 9(3), 256–258. <https://doi.org/10.1109/TNS2.1962.4316004>
- Cronin, J. W. (1963). Present status of spark chambers. *Nuclear Instruments and Methods*, 20(C), 143–151. [https://doi.org/10.1016/0029-554X\(63\)90406-3](https://doi.org/10.1016/0029-554X(63)90406-3)
- Cronin, J. W., & Overseth, O. E. (1963). Measurement of the decay parameters of the θ particle. *Physical Review*, 129(4), 1795–1807. <https://doi.org/10.1103/PhysRev.129.1795>
- Engels, E., Bowen, T., Cronin, J. W., McIlwain, R. L., & Pondrom, L. G. (1963). Measurement of Spin Correlation in Proton-Proton Scattering at 400 and 450 MeV. *Physical Review*, 129(4), 1858–1864. <https://doi.org/10.1103/PhysRev.129.1858>
- Christenson, J. H., Cronin, J. W., Fitch, V. L., & Turlay, R. (1964). Evidence for the 2π decay of the K20 meson. *Physical Review Letters*, 13(4), 138–140. <https://doi.org/10.1103/PhysRevLett.13.138>

- Hristenson, J. H., Clark, A. R., & Cronin, J. W. (1964). A study of spatial accuracy in a system of spark chambers. *IEEE Transactions on Nuclear Science*, 11(3), 310–316. <https://doi.org/10.1109/TNS.1964.4323440>
- Kreisler, M. N., Overseth, O. E., & Cronin, J. W. (1964). Measurement of the lifetimes of the Λ^0 hyperon and K^0 meson. *Physical Review*, 136(4B), B1074–B1076. <https://doi.org/10.1103/PhysRev.136.B1074>
- Christenson, J. H., Cronin, J. W., Fitch, V. L., & Turlay, R. (1965). Regeneration of K^0 mesons and the K^0 - K^0 mass difference. *Physical Review*, 140(1B), B74–B84. <https://doi.org/10.1103/PhysRev.140.B74>
- Clark, A. R., Christenson, J. H., Cronin, J. W., & Turlay, R. (1965). Dipion production at low momentum transfer in π - PP collisions at 1.5 BeV/c. *Physical Review*, 139(6B), B1556–B1565. <https://doi.org/10.1103/PhysRev.139.B1556>
- Cronin, J. W., Kunz, P. F., Risk, W. S., & Wheeler, P. C. (1967). Measurement of the decay rate of K^0 . *Physical Review Letters*, 18(1), 25–29. <https://doi.org/10.1103/PhysRevLett.18.25>
- Cronin, J. W., Kunz, P. F., Risk, W. S., & Wheeler, P. C. (1967). Erratum: Measurement of the decay rate of $K^0 \rightarrow \pi^0 + \pi^0$. (Physical Review Letters (1967)18, 4, (152)). *Physical Review Letters*, 18(4), 152. <https://doi.org/10.1103/PhysRevLett.18.152>
- Banner, M., Cronin, J. W., Liu, J. K., & Pilcher, J. E. (1968). Measurement of the branching ratio ($K_L \rightarrow \gamma\gamma$)($K_L \rightarrow 3\pi^0$). *Physical Review Letters*, 21(15), 1103–1106. <https://doi.org/10.1103/PhysRevLett.21.1103>
- Banner, M., Cronin, J. W., Liu, J. K., & Pilcher, J. E. (1968). Measurement of the branching ratio ($K_L \rightarrow 2\pi^0$)($K_L \rightarrow 3\pi^0$). *Physical Review Letters*, 21(15), 1107–1111. <https://doi.org/10.1103/PhysRevLett.21.1107>
- Basile, P., Cronin, J. W., Thevenet, B., Turlay, R., Zylberajch, S., & Zylbersztejn, A. (1968). Study of the decay mode $K^0 \rightarrow \pi^0 \nu$. *Physics Letters B*, 26(8), 542–545. [https://doi.org/10.1016/0370-2693\(68\)90375-4](https://doi.org/10.1016/0370-2693(68)90375-4)
- Basile, P., Cronin, J. W., Thevenet, B., Turlay, R., Zylberajch, S., & Zylbersztejn, A. (1968). Experimental study of the decay $K^0 \rightarrow \pi^+ \pi^- \pi^0$. *Physics Letters B*, 28(1), 58–60. [https://doi.org/10.1016/0370-2693\(68\)90542-X](https://doi.org/10.1016/0370-2693(68)90542-X)
- Banner, M., Cronin, J. W., Liu, J. K., & Pilcher, J. E. (1969). Experimental study of the decay $K_L \rightarrow \pi^0 \pi^0$ and other rare decay modes. *Physical Review*, 188(5), 2033–2059. <https://doi.org/10.1103/PhysRev.188.2033>
- Basile, P., Cronin, J. W., Thevent, B., Turlay, R., Zylberajch, S., & Zylbersztejn, A. (1970). Experimental study of the K^0 form factors. *Physical Review D*, 2(1), 78–90. <https://doi.org/10.1103/PhysRevD.2.78>

- Banner, M., Cronin, J. W., Hoffman, C. M., Knapp, B. C., & Shochet, M. J. (1972). Measurement of $|\eta^0||\eta^+-|$. *Physical Review Letters*, 28(24), 1597–1601. <https://doi.org/10.1103/PhysRevLett.28.1597>
- Banner, M., Cronin, J. W., Hoffman, C. M., Knapp, B. C., & Shochet, M. J. (1972). Experimental study of the decays $KS_L \rightarrow \gamma\gamma$. *Physical Review Letters*, 29(4), 237–240. <https://doi.org/10.1103/PhysRevLett.29.237>
- Cronin, J. W., Frisch, H. J., Shochet, M. J., Boymond, J. P., Piroué, P. A., & Sumner, R. L. (1973). Production of Hadrons with Large Transverse Momentum at 200 and 300 GeV. *Physical Review Letters*, 31(23), 1426–1429. <https://doi.org/10.1103/PhysRevLett.31.1426>
- Boymond, J. P., Mermod, R., Piroué, P. A., Sumner, R. L., Cronin, J. W., Frisch, H. J., & Shochet, M. J. (1974). Observation of large-transverse-momentum muons directly produced by 300-GeV protons. *Physical Review Letters*, 33(2), 112–115. <https://doi.org/10.1103/PhysRevLett.33.112>
- Cronin, J. W., Frisch, H. J., Shochet, M. J., Boymond, J. P., Mermod, R., Piroué, P. A., & Sumner, R. L. (1974). Search for massive penetrating particles produced by 300-GeV protons. *Physical Review D*, 10(9), 3093–3094. <https://doi.org/10.1103/PhysRevD.10.3093>
- Cronin, J. W., Frisch, H. J., Shochet, M. J., Boymond, J. P., Piroué, P. A., & Sumner, R. L. (1975). Production of hadrons at large transverse momentum at 200, 300, and 400 GeV. *Physical Review D*, 11(11), 3105–3123. <https://doi.org/10.1103/PhysRevD.11.3105>
- Kluberg, L., Piroué, P. A., Sumner, R. L., Antreasyan, D., Cronin, J. W., Frisch, H. J., & Shochet, M. J. (1976). Production of massive muon pairs by 300- and 400-GeV protons. *Physical Review Letters*, 37(22), 1451–1454. <https://doi.org/10.1103/PhysRevLett.37.1451>
- Antreasyan, D., Cocconi, G., Cronin, J. W., Frisch, H. J., Olive, K., Shochet, M. J., ... Sumner, R. L. (1977). Search for quarks produced with large transverse momentum in 400-GeV proton-nucleus collisions. *Physical Review Letters*, 39(9), 513–515. <https://doi.org/10.1103/PhysRevLett.39.513>
- Antreasyan, D., Cronin, J. W., Frisch, H. J., Shochet, M. J., Kluberg, L., Mueller, J. J., ... Sumner, R. L. (1977). Test of scaling in muon-pair production by hadrons. *Physical Review Letters*, 39(15), 906–908. <https://doi.org/10.1103/PhysRevLett.39.906>
- Antreasyan, D., Cronin, J. W., Frisch, H. J., Shochet, M. J., Kluberg, L., Piroué, P. A., & Sumner, R. L. (1977). Production of and at large transverse momentum in p-p and p-d collisions at 200, 300, and 400 GeV. *Physical Review Letters*, 38(3), 112–114. <https://doi.org/10.1103/PhysRevLett.38.112>
- Antreasyan, D., Cronin, J. W., Frisch, H. J., Shochet, M. J., Kluberg, L., Piroué, P. A., & Sumner, R. L. (1977). Production of kaons, protons, and antiprotons with large transverse momentum in p-p and p-d collisions at 200, 300, and 400 GeV. *Physical Review Letters*, 38(3), 115–117. <https://doi.org/10.1103/PhysRevLett.38.115>

- DeVoe, R., Cronin, J. W., Frisch, H. J., Grosso-Pilcher, C., Linsay, P., Shochet, M. J., & Moffett, D. R. (1977). Measurement of the branching ratio $(KL^{+-})(KL \text{ all})$. *Physical Review D*, 16(3), 565–567. <https://doi.org/10.1103/PhysRevD.16.565>
- Kluberg, L., Piroué, P. A., Sumner, R. L., Antreasyan, D., Cronin, J. W., Frisch, H. J., & Shochet, M. J. (1977). Atomic-number dependence of large-transverse-momentum hadron production by protons. *Physical Review Letters*, 38(13), 670–673. <https://doi.org/10.1103/PhysRevLett.38.670>
- Shochet, M. J., Linsay, P., Grosso-Pilcher, C., Frisch, H. J., DeVoe, R., Cronin, J. W., & Moffett, D. R. (1977). Measurement of the decay rate for the rare process $KL0 \rightarrow \mu^+ \mu^-$. *Physical Review Letters*, 39(2), 59–62. <https://doi.org/10.1103/PhysRevLett.39.59>
- Antreasyan, D., Cronin, J. W., Frisch, H. J., Shochet, M. J., Kluberg, L., Piroué, P. A., & Sumner, R. L. (1979). Production of hadrons at large transverse momentum in 200-, 300-, and 400-GeV p-p and p-nucleus collisions. *Physical Review D*, 19(3), 764–778. <https://doi.org/10.1103/PhysRevD.19.764>
- Shochet, M. J., Linsay, P., Grosso-Pilcher, C., Frisch, H. J., DeVoe, R., Cronin, J. W., & Moffett, D. R. (1979). Measurement of the decay rate for the process $KL0^+ \rightarrow \pi^+ \pi^-$. *Physical Review D*, 19(7), 1965–1977. <https://doi.org/10.1103/PhysRevD.19.1965>
- Brun, T. O., Carpenter, J. M., Krohn, V. E., Ringo, G. R., Cronin, J. W., Dombek, T. W., ... Werner, S. A. (1980). Measurement of ultracold neutrons produced by using Doppler-shifted Bragg reflection at a pulsed-neutron source. *Physics Letters A*, 75(3), 223–224. [https://doi.org/10.1016/0375-9601\(80\)90120-6](https://doi.org/10.1016/0375-9601(80)90120-6)
- Cronin, J. W. (1981). CP symmetry violation - The search for its origin. *Reviews of Modern Physics*, 53(3), 373–383. <https://doi.org/10.1103/RevModPhys.53.373>
- Cronin, J. W. (1981). CP symmetry violation: The search for its origin. *Science*, 212(4500), 1221–1228.
- Cronin, J. W. (1982). CP symmetry violation. *Physics Today*, 35(7), 38–44. <https://doi.org/10.1063/1.2915169>
- Atherton, H. W., Bovet, C., Coet, P., Desalvo, R., Doble, N., Maleyran, R., ... Milliken, B. D. (1985). Direct measurement of the lifetime of the neutral pion. *Physics Letters B*, 158(1), 81–84. [https://doi.org/10.1016/0370-2693\(85\)90744-0](https://doi.org/10.1016/0370-2693(85)90744-0)
- Bernstein, R. H., Bock, G. J., Carlsmith, D., Coupal, D., Cronin, J. W., Gollin, G. D., ... Zylberstejn, A. (1985). Measurement of ϵ'/ϵ in the neutral kaon system. *Physical Review Letters*, 54(15), 1631–1634. <https://doi.org/10.1103/PhysRevLett.54.1631>
- Coupal, D. P., Bernstein, R. H., Bock, G. J., Carlsmith, D., Cronin, J. W., Collin, G. D., ... Zylberstejn, A. (1985). Measurement of the ratio $(KL^+ \pi^0)/(KL^0 \pi^+)$ for KL with 65 GeV/c laboratory momentum. *Physical Review Letters*, 55(6), 566–569. <https://doi.org/10.1103/PhysRevLett.55.566>

- Coupal, D. P., Bernstein, R. H., Bock, G. J., Carlsmith, D., Cronin, J. W., Gollin, G. D., ... Zylberstejn, A. (1985). Erratum: Measurement of the ratio “(KL'+-)(KL'l) for KL with 65 GeV/c Laboratory Momentum (*Physical Review Letters* (1985) 55, 13 (1430)). *Physical Review Letters*, 55(13), 1430. <https://doi.org/10.1103/PhysRevLett.55.1430>
- Ong, R., Cronin, J. W., Gibbs, K. G., Krimm, H. A., McKay, T. A., Mascarenhas, N., ... Wiedenbeck, M. E. (1990). Design and performance of the Chicago Air Shower Array. *Nuclear Physics B (Proceedings Supplements)*, 14(1), 273–284. [https://doi.org/10.1016/0920-5632\(90\)90432-T](https://doi.org/10.1016/0920-5632(90)90432-T)
- Boratav, M., Cronin, J. W., & Watson, A. A. (1992). Preface. *Nuclear Physics B (Proceedings Supplements)*, 28(2).
- Cronin, J. W. (1992). Summary of the workshop. *Nuclear Physics B (Proceedings Supplements)*, 28(2), 213–225. [https://doi.org/10.1016/0920-5632\(92\)90134-E](https://doi.org/10.1016/0920-5632(92)90134-E)
- Cronin, J. W., Fick, B. E., Gibbs, K. G., Krimm, H. A., Mascarenhas, N. C., McKay, T. A., ... Van Der Velde, J. C. (1992). Search for discrete sources of 100 TeV gamma radiation. *Physical Review D*, 45(12), 4385–4391. <https://doi.org/10.1103/PhysRevD.45.4385>
- Cronin, J. W., Gibbs, K. G., & Weekes, T. C. (1993). The search for discrete astrophysical sources of energetic gamma radiation. *Annual Review of Nuclear and Particle Science*, 43(1), 883–925.
- McKay, T. A., Borione, A., Catanese, M., Covault, C. E., Cronin, J. W., Fick, B. E., ... Van Der Velde, J. C. (1993). A northern sky survey for astrophysical point sources of 100 TeV gamma radiation. *Astrophysical Journal*, 417(2), 742–747.
- Aharonian, F. A., & Cronin, J. W. (1994). Influence of the universal microwave background radiation on the extragalactic cosmic-ray spectrum. *Physical Review D*, 50(3), 1892–1900. <https://doi.org/10.1103/PhysRevD.50.1892>
- Borione, A., Catanese, M., Covault, C. E., Cronin, J. W., Fick, B. E., Gibbs, K. G., ... Van Der Velde, J. C. (1994). Observation of the shadows of the moon and sun using 100 TeV cosmic rays. *Physical Review D*, 49(3), 1171–1177. <https://doi.org/10.1103/PhysRevD.49.1171>
- Borione, A., Covault, C. E., Cronin, J. W., Fick, B. E., Gibbs, K. G., Krimm, H. A., ... van der Velde, J. C. (1994). A large air shower array to search for astrophysical sources emitting γ -rays with energies $\geq 1014\text{eV}$. *Nuclear Inst. and Methods in Physics Research, A*, 346(1–2), 329–352. [https://doi.org/10.1016/0168-9002\(94\)90722-6](https://doi.org/10.1016/0168-9002(94)90722-6)
- Cronin, J. W. (1995). Concluding remarks. *Nuclear Physics B (Proceedings Supplements)*, 43(1–3), 343–349. [https://doi.org/10.1016/0920-5632\(95\)00500-9](https://doi.org/10.1016/0920-5632(95)00500-9)
- Borione, A., Covault, C. E., Cronin, J. W., Fick, B. E., Fortson, L. F., Gibbs, K. G., ... Kieda, D. B. (1996). A search for diffuse sources of ultra high energy gamma-rays. *Nuclear Physics B - Proceedings Supplements*, 19(1), 483–484. [https://doi.org/10.1016/0920-5632\(91\)90223-2](https://doi.org/10.1016/0920-5632(91)90223-2)

- Catanese, M., Borione, A., Covault, C. E., Cronin, J. W., Fick, B. E., Fortson, L. F., ... Van Der Velde, J. C. (1996). A search for ultrahigh-energy gamma rays from egret-detected active galactic nuclei using casa-mia. *Astrophysical Journal*, 469(2 PART I), 572–580. <https://doi.org/10.1086/177806>
- Cronin, J. W. (1996). Gamma-ray astronomy by the air shower technique: Performance and perspectives. *Nuovo Cimento Della Societa Italiana Di Fisica C*, 19(6), 847–863. <https://doi.org/10.1007/BF02508125>
- Borione, A., Catanese, M. A., Chantell, M. C., Covault, C. E., Cronin, J. W., Fick, B. E., ... Van Der Velde, J. C. (1997). A search for ultra-high-energy gamma-ray emission from the crab nebula and pulsar. *Astrophysical Journal*, 481(1 PART I), 313–326. <https://doi.org/10.1086/304042>
- Borione, A., Chantell, M. C., Covault, C. E., Cronin, J. W., Fick, B. E., Fowler, J. W., ... Kieda, D. B. (1997). High statistics search for ultrahigh energy γ -ray emission from Cygnus X-3 and Hercules X-1. *Physical Review D - Particles, Fields, Gravitation and Cosmology*, 55(4), 1714–1731. <https://doi.org/10.1103/PhysRevD.55.1714>
- Chantell, M. C., Covault, C. E., Cronin, J. W., Fick, B. E., Fortson, L. F., Fowler, J. W., ... Kieda, D. B. (1997). Limits on the isotropic diffuse flux of ultrahigh energy γ radiation. *Physical Review Letters*, 79(10), 1805–1808. <https://doi.org/10.1103/PhysRevLett.79.1805>
- Borione, A., Catanese, M. A., Chantell, M. C., Covault, C. E., Cronin, J. W., Fick, B. E., ... Van Der Velde, J. C. (1998). Constraints on gamma-ray emission from the Galactic plane at 300 TeV. *Astrophysical Journal*, 493(1 PART I), 175–179. <https://doi.org/10.1086/305096>
- Capelle, K. S., Cronin, J. W., Parente, G., & Zas, E. (1998). On the detection of ultra high energy neutrinos with the Auger observatory. *Astroparticle Physics*, 8(4), 321–328. [https://doi.org/10.1016/S0927-6505\(97\)00059-5](https://doi.org/10.1016/S0927-6505(97)00059-5)
- Cronin, J. W. (1999). Extremely high energy cosmic rays and neutrinos. *Nuclear Physics B - Proceedings Supplements*, 77(1–3), 498–508. [https://doi.org/10.1016/S0920-5632\(99\)00484-3](https://doi.org/10.1016/S0920-5632(99)00484-3)
- Cronin, J. W. (1999). Cosmic rays: The most energetic particles in the universe. *Reviews of Modern Physics*, 71(SUPPL. 2), S165–S172.
- Glasmacher, M. A. K., Catanese, M. A., Chantell, M. C., Covault, C. E., Cronin, J. W., Fick, B. E., ... der Velde, J. C. (1999). Energy spectra and composition near the knee. *Nuclear Physics B - Proceedings Supplements*, 75(1–2), 241–243. [https://doi.org/10.1016/S0920-5632\(99\)00254-6](https://doi.org/10.1016/S0920-5632(99)00254-6)
- Glasmacher, M. A. K., Catanese, M. A., Chantell, M. C., Covault, C. E., Cronin, J. W., Fick, B. E., ... Van Der Velde, J. C. (1999). The cosmic ray energy spectrum between 1014 and 10¹⁶ eV. *Astroparticle Physics*, 10(4), 291–302. [https://doi.org/10.1016/S0927-6505\(98\)00070-X](https://doi.org/10.1016/S0927-6505(98)00070-X)

- Glasmacher, M. A. K., Catanese, M. A., Chantell, M. C., Covault, C. E., Cronin, J. W., Fick, B. E., ... Van Der Velde, J. C. (1999). The cosmic ray composition between 1014 and 1016 eV. *Astroparticle Physics*, 12(1–2), 1–17. [https://doi.org/10.1016/S0927-6505\(99\)00076-6](https://doi.org/10.1016/S0927-6505(99)00076-6)
- Abu-Zayyad, T., Belov, K., Bird, D. J., Boyer, J., Cao, Z., Catanese, M., ... Zhang, X. Z. (2000). Evidence for Changing of Cosmic Ray Composition between 1017 and 1018 eV from Multicomponent Measurements. *Physical Review Letters*, 84(19), 4276–4279. <https://doi.org/10.1103/PhysRevLett.84.4276>
- Cronin, J. W. (2000). Extremely high energy cosmic rays. *Nuclear Physics B - Proceedings Supplements*, 80(1–3), 33–40.
- Cronin, J. W. (2001). Ultra high energy cosmic rays. *Nuclear Physics B - Proceedings Supplements*, 97(1–3), 3–9. [https://doi.org/10.1016/S0920-5632\(01\)01179-3](https://doi.org/10.1016/S0920-5632(01)01179-3)
- Swordy, S. P., Fortson, L. F., Hinton, J., Hörandel, J., Knapp, J., Pryke, C. L., ... Spiczak, G. (2002). The composition of cosmic rays at the knee. *Astroparticle Physics*, 18(2), 129–150. [https://doi.org/10.1016/S0927-6505\(02\)00108-1](https://doi.org/10.1016/S0927-6505(02)00108-1)
- Abraham, J., Aglietta, M., Aguirre, I. C., Albrow, M., Allard, D., Allekotte, I., ... Zhu, Q. (2004). 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*, 523(1–2), 50–95. <https://doi.org/10.1016/j.nima.2003.12.012>
- Cronin, J. W. (2005). The highest-energy cosmic rays. *Nuclear Physics B - Proceedings Supplements*, 138(1–3), 465–491. <https://doi.org/10.1016/j.nuclphysbps.2004.11.107>
- Abraham, J., Abreu, P., Aglietta, M., Aguirre, C., Allard, D., Allekotte, I., ... Ziolkowski, M. (2007). Correlation of the highest-energy cosmic rays with nearby extragalactic objects. *Science*, 318(5852), 938–943. <https://doi.org/10.1126/science.1151154>
- Abraham, J., Aglietta, M., Aguirre, C., Allard, D., Allekotte, I., Allison, P., ... Ziolkowski, M. (2007). An upper limit to the photon fraction in cosmic rays above 1019 eV from the Pierre Auger Observatory. *Astroparticle Physics*, 27(2–3), 155–168. <https://doi.org/10.1016/j.astropartphys.2006.10.004>
- Abraham, J., Aglietta, M., Aguirre, C., Allard, D., Allekotte, I., Allison, P., ... Ziolkowski, M. (2007). Anisotropy studies around the galactic centre at EeV energies with the Auger Observatory. *Astroparticle Physics*, 27(4), 244–253. <https://doi.org/10.1016/j.astropartphys.2006.11.002>
- Abraham, J., Abreu, P., Aglietta, M., Aguirre, C., Allard, D., Allekotte, I., ... Ziolkowski, M. (2008). Observation of the suppression of the flux of cosmic rays above 4×10^{19} eV. *Physical Review Letters*, 101(6). <https://doi.org/10.1103/PhysRevLett.101.061101>
- Abraham, J., Abreu, P., Aglietta, M., Aguirre, C., Allard, D., Allekotte, I., ... Ziolkowski, M. (2008). Upper limit on the cosmic-ray photon flux above 1019 eV using the surface

- detector of the Pierre Auger Observatory. *Astroparticle Physics*, 29(4), 243–256.
<https://doi.org/10.1016/j.astropartphys.2008.01.003>
- Abraham, J., Abreu, P., Aglietta, M., Aguirre, C., Allard, D., Allekotte, I., ... Ziolkowski, M. (2008). Upper Limit on the Diffuse Flux of Ultrahigh Energy Tau Neutrinos from the Pierre Auger Observatory. *Physical Review Letters*, 100(21).
<https://doi.org/10.1103/PhysRevLett.100.211101>
- Abraham, J., Abreu, P., Aglietta, M., Aguirre, C., Allard, D., Allekotte, I., ... Ziolkowski, M. (2008). Correlation of the highest-energy cosmic rays with the positions of nearby active galactic nuclei. *Astroparticle Physics*, 29(3), 188–204.
<https://doi.org/10.1016/j.astropartphys.2008.01.002>
- Cronin, J. W. (2008). The experimental discovery of CP violation. *Lecture Notes in Physics*, 746, 261–280. https://doi.org/10.1007/978-4-431-77056-5_12
- Abraham, J., Abreu, P., Aglietta, M., Aguirre, C., Ahn, E. J., Allard, D., ... Ziolkowski, M. (2009). Atmospheric effects on extensive air showers observed with the surface detector of the Pierre Auger observatory. *Astroparticle Physics*, 32(2), 89–99.
<https://doi.org/10.1016/j.astropartphys.2009.06.004>
- Abraham, J., Abreu, P., Aglietta, M., Aguirre, C., Ahn, E. J., Allard, D., ... Ziolkowski, M. (2009). Upper limit on the cosmic-ray photon fraction at EeV energies from the Pierre Auger Observatory. *Astroparticle Physics*, 31(6), 399–406.
<https://doi.org/10.1016/j.astropartphys.2009.04.003>
- Abraham, J., Abreu, P., Aglietta, M., Aguirre, C., Ahn, E. J., Allard, D., ... Ziolkowski, M. (2009). Limit on the diffuse flux of ultrahigh energy tau neutrinos with the surface detector of the Pierre Auger Observatory. *Physical Review D - Particles, Fields, Gravitation and Cosmology*, 79(10). <https://doi.org/10.1103/PhysRevD.79.102001>
- Ave, M., Cazon, L., Cronin, J., De Mello Neto, J. R. T., Olinto, A. V., Pavlidou, V., ... Venters, T. (2009). The 2pt+: An enhanced 2 point correlation function. *Journal of Cosmology and Astroparticle Physics*, 2009(7). <https://doi.org/10.1088/1475-7516/2009/07/023>
- Abraham, J., Abreu, P., Aglietta, M., Aguirre, C., Ahn, E. J., Allard, D., ... Ziolkowski, M. (2010). The fluorescence detector of the Pierre Auger Observatory. *Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment*, 620(2–3), 227–251.
<https://doi.org/10.1016/j.nima.2010.04.023>
- Abraham, J., Abreu, P., Aglietta, M., Aguirre, C., Ahn, E. J., Allard, D., ... Ziolkowski, M. (2010). Erratum to “Atmospheric effects on extensive air showers observed with the surface detector of the Pierre Auger observatory” [*Astroparticle Physics* 32(2) (2009), 89–99] (DOI:10.1016/j.astropartphys.2009.06.004). *Astroparticle Physics*, 33(1), 65–67.
<https://doi.org/10.1016/j.astropartphys.2009.10.005>
- Abraham, J., Abreu, P., Aglietta, M., Aguirre, C., Ahn, E. J., Allard, D., ... Ziolkowski, M. (2010). A study of the effect of molecular and aerosol conditions in the atmosphere on

- air fluorescence measurements at the Pierre Auger Observatory. *Astroparticle Physics*, 33(2), 108–129. <https://doi.org/10.1016/j.astropartphys.2009.12.005>
- Abraham, J., Abreu, P., Aglietta, M., Ahn, E. J., Allard, D., Allekotte, I., ... Ziolkowski, M. (2010). Trigger and aperture of the surface detector array of the Pierre Auger Observatory. *Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment*, 613(1), 29–39. <https://doi.org/10.1016/j.nima.2009.11.018>
- Abraham, J., Abreu, P., Aglietta, M., Ahn, E. J., Allard, D., Allekotte, I., ... Ziolkowski, M. (2010). Measurement of the depth of maximum of extensive air showers above 1018eV. *Physical Review Letters*, 104(9). <https://doi.org/10.1103/PhysRevLett.104.091101>
- Abraham, J., Abreu, P., Aglietta, M., Ahn, E. J., Allard, D., Allen, J., ... Ziolkowski, M. (2010). Measurement of the energy spectrum of cosmic rays above 1018eV using the Pierre Auger Observatory. *Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics*, 685(4–5), 239–246. <https://doi.org/10.1016/j.physletb.2010.02.013>
- Abreu, P., Aglietta, M., Ahn, E. J., Allard, D., Allekotte, I., Allen, J., ... Ziolkowski, M. (2010). Update on the correlation of the highest energy cosmic rays with nearby extragalactic matter. *Astroparticle Physics*, 34(5), 314–326. <https://doi.org/10.1016/j.astropartphys.2010.08.010>
- Abreu, P., Aglietta, M., Ahn, E. J., Albuquerque, I. F. M., Allard, D., Allekotte, I., ... Ziolkowski, M. (2011). Advanced functionality for radio analysis in the Offline software framework of the Pierre Auger Observatory. *Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment*, 635(1), 92–102. <https://doi.org/10.1016/j.nima.2011.01.049>
- Abreu, P., Aglietta, M., Ahn, E. J., Albuquerque, I. F. M., Allard, D., Allekotte, I., ... Ziolkowski, M. (2011). The Lateral Trigger Probability function for the ultra-high energy cosmic ray showers detected by the pierre auger observatory. *Astroparticle Physics*, 35(5), 266–276. <https://doi.org/10.1016/j.astropartphys.2011.08.001>
- Abreu, P., Aglietta, M., Ahn, E. J., Albuquerque, I. F. M., Allard, D., Allekotte, I., ... Ziolkowski, M. (2011). Anisotropy and chemical composition of ultra-high energy cosmic rays using arrival directions measured by the Pierre Auger Observatory. *Journal of Cosmology and Astroparticle Physics*, 2011(6). <https://doi.org/10.1088/1475-7516/2011/06/022>
- Abreu, P., Aglietta, M., Ahn, E. J., Albuquerque, I. F. M., Allard, D., Allekotte, I., ... Ziolkowski, M. (2011). The effect of the geomagnetic field on cosmic ray energy estimates and large scale anisotropy searches on data from the Pierre Auger Observatory. *Journal of Cosmology and Astroparticle Physics*, 2011(11). <https://doi.org/10.1088/1475-7516/2011/11/022>
- Abreu, P., Aglietta, M., Ahn, E. J., Albuquerque, I. F. M., Allard, D., Allekotte, I., ... Ziolkowski, M. (2011). Search for ultrahigh energy neutrinos in highly inclined events

at the Pierre Auger Observatory. *Physical Review D - Particles, Fields, Gravitation and Cosmology*, 84(12). <https://doi.org/10.1103/PhysRevD.84.122005>

Abreu, P., Aglietta, M., Ahn, E. J., Albuquerque, I. F. M., Allard, D., Allekotte, I., ... Ziolkowski, M. (2011). Search for first harmonic modulation in the right ascension distribution of cosmic rays detected at the Pierre Auger Observatory. *Astroparticle Physics*, 34(8), 627–639. <https://doi.org/10.1016/j.astropartphys.2010.12.007>

Abreu, P., Aglietta, M., Ahn, E. J., Allard, D., Allekotte, I., Allen, J., ... Ziolkowski, M. (2011). The exposure of the hybrid detector of the Pierre Auger Observatory. *Astroparticle Physics*, 34(6), 368–381. <https://doi.org/10.1016/j.astropartphys.2010.10.001>

Abreu, P., Aglietta, M., Ahn, E. J., Allard, D., Allekotte, I., Allen, J., ... Ziolkowski, M. (2011). The pierre auger observatory scaler mode for the study of solar activity modulation of galactic cosmic rays. *Journal of Instrumentation*, 6(1). <https://doi.org/10.1088/1748-0221/6/01/P01003>

Cronin, J. W. (2011). The 1953 cosmic ray conference at bagnères de bigorre: The birth of sub atomic physics. *European Physical Journal H*, 36(2), 183–201. <https://doi.org/10.1140/epjh/e2011-20014-4>

Abreu, P., Aglietta, M., Ahlers, M., Ahn, E. J., Albuquerque, I. F. M., Allard, D., ... Ziolkowski, M. (2012). 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. *Astrophysical Journal Letters*, 755(1). <https://doi.org/10.1088/2041-8205/755/1/L4>

Abreu, P., Aglietta, M., Ahlers, M., Ahn, E. J., Albuquerque, I. F. M., Allard, D., ... Ziolkowski, M. (2012). A search for anisotropy in the arrival directions of ultra high energy cosmic rays recorded at the Pierre Auger Observatory. *Journal of Cosmology and Astroparticle Physics*, 2012(4). <https://doi.org/10.1088/1475-7516/2012/04/040>

Abreu, P., Aglietta, M., Ahlers, M., Ahn, E. J., Albuquerque, I. F. M., Allard, D., ... Ziolkowski, M. (2012). Large-scale distribution of arrival directions of cosmic rays detected above 1018eV at the Pierre Auger Observatory. *Astrophysical Journal, Supplement Series*, 203(2). <https://doi.org/10.1088/0067-0049/203/2/34>

Abreu, P., Aglietta, M., Ahlers, M., Ahn, E. J., Albuquerque, I. F. M., Allard, D., ... Ziolkowski, M. (2012). A search for point sources of EeV neutrons. *Astrophysical Journal*, 760(2). <https://doi.org/10.1088/0004-637X/760/2/148>

Abreu, P., Aglietta, M., Ahlers, M., Ahn, E. J., Albuquerque, I. F. M., Allard, D., ... Seeger, O. (2012). Antennas for the detection of radio emission pulses from cosmic-ray induced air showers at the Pierre Auger Observatory. *Journal of Instrumentation*, 7(10). <https://doi.org/10.1088/1748-0221/7/10/P10011>

Abreu, P., Aglietta, M., Ahlers, M., Ahn, E. J., Albuquerque, I. F. M., Allard, D., ... Ziolkowski, M. (2012). Description of atmospheric conditions at the Pierre Auger Observatory using the Global Data Assimilation System (GDAS). *Astroparticle Physics*, 35(9), 591–607. <https://doi.org/10.1016/j.astropartphys.2011.12.002>

- Abreu, P., Aglietta, M., Ahlers, M., Ahn, E. J., Albuquerque, I. F. M., Allard, D., ... Ziolkowski, M. (2012). Erratum: Search for ultrahigh energy neutrinos in highly inclined events at the Pierre Auger Observatory (Physical Review D - Particles, Fields, Gravitation and Cosmology (2011) 84 (122005)). *Physical Review D - Particles, Fields, Gravitation and Cosmology*, 85(2). <https://doi.org/10.1103/PhysRevD.85.029902>
- Abreu, P., Aglietta, M., Ahlers, M., Ahn, E. J., Albuquerque, I. F. M., Allard, D., ... Ziolkowski, M. (2012). The rapid atmospheric monitoring system of the Pierre Auger Observatory. *Journal of Instrumentation*, 7(9). <https://doi.org/10.1088/1748-0221/7/09/P09001>
- Abreu, P., Aglietta, M., Ahn, E. J., Albuquerque, I. F. M., Allard, D., Allekotte, I., ... Ziolkowski, M. (2012). Measurement of the proton-air cross section at $\sqrt{s}=57\text{TeV}$ with the Pierre Auger observatory. *Physical Review Letters*, 109(6). <https://doi.org/10.1103/PhysRevLett.109.062002>
- Abreu, P., Aglietta, M., Ahn, E. J., Albuquerque, I. F. M., Allard, D., Allekotte, I., ... Ziolkowski, M. (2012). Erratum: The lateral trigger probability function for the ultra-high energy cosmic ray showers detected by the Pierre Auger Observatory (Astroparticle Physics (2011) 35 (266-276)). *Astroparticle Physics*, 35(10), 681–684. <https://doi.org/10.1016/j.astropartphys.2012.02.005>
- Abreu, P., Aglietta, M., Ahn, E. J., Albuquerque, I. F. M., Allard, D., Allekotte, I., ... Ziolkowski, M. (2012). Search for signatures of magnetically-induced alignment in the arrival directions measured by the Pierre Auger Observatory. *Astroparticle Physics*, 35(6), 354–361. <https://doi.org/10.1016/j.astropartphys.2011.10.004>
- Acounis, S., Charrier, D., Garçon, T., Rivière, C., Stassi, P., Abreu, P., ... Ziolkowski, M. (2012). Results of a self-triggered prototype system for radio-detection of extensive air showers at the Pierre Auger Observatory. *Journal of Instrumentation*, 7(11). <https://doi.org/10.1088/1748-0221/7/11/P11023>
- Cronin, J. W. (2012). The discovery of CP violation. *European Physical Journal H*, 36(4), 487–508. <https://doi.org/10.1140/epjh/e2011-20057-4>
- Cronin, J. W. (2012). *The discovery of CP violation. From the PS to the LHC - 50 Years of Nobel Memories in High-Energy Physics*. https://doi.org/10.1007/978-3-642-30844-4_10
- Settimo, M., Abreu, P., Aglietta, M., Ahlers, M., Ahn, E. J., Albuquerque, I. F. M., ... Ziolkowski, M. (2012). Measurement of the cosmic ray energy spectrum using hybrid events of the Pierre Auger Observatory. *European Physical Journal Plus*, 127(8), 1–15. <https://doi.org/10.1140/epjp/i2012-12087-9>
- Abreu, P., Aglietta, M., Ahlers, M., Ahn, E. J., Albuquerque, I. F. M., Allard, D., ... Ziolkowski, M. (2013). Ultrahigh energy neutrinos at the pierre auger observatory. *Advances in High Energy Physics*, 2013. <https://doi.org/10.1155/2013/708680>
- Abreu, P., Aglietta, M., Ahlers, M., Ahn, E. J., Albuquerque, I. F. M., Allard, D., ... Ziolkowski, M. (2013). Constraints on the origin of cosmic rays above 1018ev from

large-scale anisotropy searches in data of the pierre auger observatory. *Astrophysical Journal Letters*, 762(1). <https://doi.org/10.1088/2041-8205/762/1/L13>

- Abreu, P., Aglietta, M., Ahlers, M., Ahn, E. J., Albuquerque, I. F. M., Allekotte, I., ... Ziolkowski, M. (2013). Identifying clouds over the Pierre Auger Observatory using infrared satellite data. *Astroparticle Physics*, 50–52, 92–101. <https://doi.org/10.1016/j.astropartphys.2013.09.004>
- Abreu, P., Aglietta, M., Ahlers, M., Ahn, E. J., Albuquerque, I. F. M., Allekotte, I., ... Ziolkowski, M. (2013). Interpretation of the depths of maximum of extensive air showers measured by the Pierre Auger Observatory. *Journal of Cosmology and Astroparticle Physics*, 2013(2). <https://doi.org/10.1088/1475-7516/2013/02/026>
- Abreu, P., Aglietta, M., Ahlers, M., Ahn, E. J., Albuquerque, I. F. M., Allekotte, I., ... Ziolkowski, M. (2013). Bounds on the density of sources of ultra-high energy cosmic rays from the Pierre Auger Observatory. *Journal of Cosmology and Astroparticle Physics*, 2013(5). <https://doi.org/10.1088/1475-7516/2013/05/009>
- Aab, A., Abreu, P., Aglietta, M., Ahlers, M., Ahn, E. J., Al Samarai, I., ... Ziolkowski, M. (2014). Reconstruction of inclined air showers detected with the Pierre Auger Observatory. *Journal of Cosmology and Astroparticle Physics*, 2014(8). <https://doi.org/10.1088/1475-7516/2014/08/019>
- Aab, A., Abreu, P., Aglietta, M., Ahlers, M., Ahn, E. J., Al Samarai, I., ... Ziolkowski, M. (2014). Muons in air showers at the Pierre Auger Observatory: Measurement of atmospheric production depth. *Physical Review D - Particles, Fields, Gravitation and Cosmology*, 90(1). <https://doi.org/10.1103/PhysRevD.90.012012>
- Aab, A., Abreu, P., Aglietta, M., Ahlers, M., Ahn, E. J., Al Samarai, I., ... Ziolkowski, M. (2014). A search for point sources of EeV photons. *Astrophysical Journal*, 789(2). <https://doi.org/10.1088/0004-637X/789/2/160>
- Aab, A., Abreu, P., Aglietta, M., Ahlers, M., Ahn, E. J., Al Samarai, I., ... Ziolkowski, M. (2014). A targeted search for point sources of EeV neutrons. *Astrophysical Journal Letters*, 789(2). <https://doi.org/10.1088/2041-8205/789/2/L34>
- Aab, A., Abreu, P., Aglietta, M., Ahlers, M., Ahn, E. J., Albuquerque, I. F. M., ... Curci, G. (2014). Origin of atmospheric aerosols at the Pierre Auger Observatory using studies of air mass trajectories in South America. *Atmospheric Research*, 149, 120–135. <https://doi.org/10.1016/j.atmosres.2014.05.021>
- Aab, A., Abreu, P., Aglietta, M., Ahlers, M., Ahn, E. J., Albuquerque, I. F. M., ... Ziolkowski, M. (2014). Probing the radio emission from air showers with polarization measurements. *Physical Review D - Particles, Fields, Gravitation and Cosmology*, 89(5). <https://doi.org/10.1103/PhysRevD.89.052002>
- Aab, A., Abreu, P., Aglietta, M., Ahn, E. J., Al Samarai, I., Albuquerque, I. F. M., ... Zuccarello, F. (2014). Depth of maximum of air-shower profiles at the Pierre Auger Observatory. I. Measurements at energies above 10^{17.8}eV. *Physical Review D -*

Particles, Fields, Gravitation and Cosmology, 90(12).
<https://doi.org/10.1103/PhysRevD.90.122005>

Aab, A., Abreu, P., Aglietta, M., Ahn, E. J., Al Samarai, I., Albuquerque, I. F. M., ... Zuccarello, F. (2014). Depth of maximum of air-shower profiles at the Pierre Auger Observatory. II. Composition implications. *Physical Review D - Particles, Fields, Gravitation and Cosmology*, 90(12). <https://doi.org/10.1103/PhysRevD.90.122006>

Aab, A., Abreu, P., Aglietta, M., Ahn, E. J., Al Samarai, I., Albuquerque, I. F. M., ... Zundel, Z. (2014). Searches for large-scale anisotropy in the arrival directions of cosmic rays detected above energy of 1019 eV at the Pierre Auger observatory and the telescope array. *Astrophysical Journal*, 794(2). <https://doi.org/10.1088/0004-637X/794/2/172>

Cronin, J. W. (2014). A life in high-energy physics: Success beyond expectations. *Annual Review of Nuclear and Particle Science*, 64, 1–49. <https://doi.org/10.1146/annurev-nucl-102313-025716>

Cronin, J. W. (2014). From spontaneous ionization to subatomic physics: Some vignettes from cosmic ray history. *Astroparticle Physics*, 53(C), 6–18.
<https://doi.org/10.1016/j.astropartphys.2013.04.003>

Aab, A., Abreu, P., Aglietta, M., Ahlers, M., Ahn, E. J., Al Samarai, I., ... Ziolkowski, M. (2015). Erratum: Muons in air showers at the Pierre Auger Observatory: Measurement of atmospheric production depth (Physical Review D - Particles, Fields, Gravitation and Cosmology (2014) 90 (012012)). *Physical Review D - Particles, Fields, Gravitation and Cosmology*, 92(1). <https://doi.org/10.1103/PhysRevD.92.019903>

Aab, A., Abreu, P., Aglietta, M., Ahn, E. J., Al Samarai, I., Albert, J. N., ... Zuccarello, F. (2015). The Pierre Auger Cosmic Ray Observatory. *Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment*, 798, 172–213. <https://doi.org/10.1016/j.nima.2015.06.058>

Aab, A., Abreu, P., Aglietta, M., Ahn, E. J., Al Samarai, I., Albuquerque, I. F. M., ... Zuccarello, F. (2015). Muons in air showers at the Pierre Auger Observatory: Mean number in highly inclined events. *Physical Review D - Particles, Fields, Gravitation and Cosmology*, 91(3). <https://doi.org/10.1103/PhysRevD.91.032003>

Aab, A., Abreu, P., Aglietta, M., Ahn, E. J., Al Samarai, I., Albuquerque, I. F. M., ... Zuccarello, F. (2015). Improved limit to the diffuse flux of ultrahigh energy neutrinos from the Pierre Auger observatory. *Physical Review D - Particles, Fields, Gravitation and Cosmology*, 91(9). <https://doi.org/10.1103/PhysRevD.91.092008>

Aab, A., Abreu, P., Aglietta, M., Ahn, E. J., Al Samarai, I., Albuquerque, I. F. M., ... Zuccarello, F. (2015). 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(8). <https://doi.org/10.1088/1475-7516/2015/08/049>

Aab, A., Abreu, P., Aglietta, M., Ahn, E. J., Samarai, I. A. L., Albuquerque, I. F. M., ... Zuccarello, F. (2015). Large scale distribution of ultra high energy cosmic rays detected

at the Pierre Auger observatory with zenith angles up to 80° . *Astrophysical Journal*, 802(2). <https://doi.org/10.1088/0004-637X/802/2/111>

- Aab, A., Abreu, P., Aglietta, M., Ahn, E. J., Samarai, I. A., Albuquerque, I. F. M., ... Zuccarello, F. (2015). Searches for anisotropies in the arrival directions of the highest energy cosmic rays detected by the pierre auger observatory. *Astrophysical Journal*, 804(1). <https://doi.org/10.1088/0004-637X/804/1/15>
- Aab, A., Abreu, P., Aglietta, M., Ahn, E. J., Samarai, I. A., Albuquerque, I. F. M., ... Zuccarello, F. (2015). Search for patterns by combining cosmic-ray energy and arrival directions at the Pierre Auger Observatory. *European Physical Journal C*, 75(6). <https://doi.org/10.1140/epjc/s10052-015-3471-0>
- Aab, A., Abreu, P., Aglietta, M., Ahn, E. J., Al Samarai, I., Albuquerque, I. F. M., ... Zuccarello, F. (2016). Testing Hadronic Interactions at Ultrahigh Energies with Air Showers Measured by the Pierre Auger Observatory. *Physical Review Letters*, 117(19). <https://doi.org/10.1103/PhysRevLett.117.192001>
- Aab, A., Abreu, P., Aglietta, M., Ahn, E. J., Al Samarai, I., Albuquerque, I. F. M., ... Zuccarello, F. (2016). 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*, 762, 288–295. <https://doi.org/10.1016/j.physletb.2016.09.039>
- Aab, A., Abreu, P., Aglietta, M., Ahn, E. J., Al Samarai, I., Albuquerque, I. F. M., ... Zuccarello, F. (2016). Prototype muon detectors for the AMIGA component of the Pierre Auger Observatory. *Journal of Instrumentation*, 11(2). <https://doi.org/10.1088/1748-0221/11/02/P02012>
- Aab, A., Abreu, P., Aglietta, M., Ahn, E. J., Al Samarai, I., Albuquerque, I. F. M., ... Zuccarello, F. (2016). Nanosecond-level time synchronization of autonomous radio detector stations for extensive air showers. *Journal of Instrumentation*, 11(1). <https://doi.org/10.1088/1748-0221/11/01/P01018>
- Aab, A., Abreu, P., Aglietta, M., Ahn, E. J., Al Samarai, I., Albuquerque, I. F. M., ... Zuccarello, F. (2016). Measurement of the Radiation Energy in the Radio Signal of Extensive Air Showers as a Universal Estimator of Cosmic-Ray Energy. *Physical Review Letters*, 116(24). <https://doi.org/10.1103/PhysRevLett.116.241101>
- Aab, A., Abreu, P., Aglietta, M., Ahn, E. J., Al Samarai, I., Albuquerque, I. F. M., ... Zuccarello, F. (2016). Energy estimation of cosmic rays with the Engineering Radio Array of the Pierre Auger Observatory. *Physical Review D*, 93(12). <https://doi.org/10.1103/PhysRevD.93.122005>
- Aab, A., Abreu, P., Aglietta, M., Ahn, E. J., Al Samarai, I., Albuquerque, I. F. M., ... Zuccarello, F. (2016). Azimuthal asymmetry in the risetime of the surface detector signals of the Pierre Auger Observatory. *Physical Review D - Particles, Fields, Gravitation and Cosmology*, 93(7). <https://doi.org/10.1103/PhysRevD.93.072006>
- Aab, A., Abreu, P., Aglietta, M., Al Samarai, I., Albuquerque, I. F. M., Allekotte, I., ... Zuccarello, F. (2016). Ultrahigh-energy neutrino follow-up of gravitational wave events

- GW150914 and GW151226 with the Pierre Auger Observatory. *Physical Review D*, 94(12). <https://doi.org/10.1103/PhysRevD.94.122007>
- Aab, A., Abreu, P., Aglietta, M., Al Samarai, I., Albuquerque, I. F. M., Allekotte, I., ... Zuccarello, F. (2016). Search for ultrarelativistic magnetic monopoles with the Pierre Auger observatory. *Physical Review D*, 94(8). <https://doi.org/10.1103/PhysRevD.94.082002>
- Aab, A., Abreu, P., Aglietta, M., Ahn, E. J., Al Samarai, I., Albuquerque, I. F. M., ... Zuccarello, F. (2017). Muon counting using silicon photomultipliers in the AMIGA detector of the Pierre Auger observatory. *Journal of Instrumentation*, 12(3). <https://doi.org/10.1088/1748-0221/12/03/P03002>
- Aab, A., Abreu, P., Aglietta, M., Al Samarai, I., Albuquerque, I. F. M., Allekotte, I., ... Zuccarello, F. (2017). 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 INFERENCES on MASS COMPOSITION and TESTS of ... A. AAB et al. *Physical Review D*, 96(12). <https://doi.org/10.1103/PhysRevD.96.122003>
- Aab, A., Abreu, P., Aglietta, M., Al Samarai, I., Albuquerque, I. F. M., Allekotte, I., ... Zuccarello, F. (2017). Spectral calibration of the fluorescence telescopes of the Pierre Auger Observatory. *Astroparticle Physics*, 95, 44–56. <https://doi.org/10.1016/j.astropartphys.2017.09.001>
- Aab, A., Abreu, P., Aglietta, M., Al Samarai, I., Albuquerque, I. F. M., Allekotte, I., ... Zuccarello, F. (2017). Impact of atmospheric effects on the energy reconstruction of air showers observed by the surface detectors of the Pierre Auger Observatory. *Journal of Instrumentation*, 12(2). <https://doi.org/10.1088/1748-0221/12/02/P02006>
- Aab, A., Abreu, P., Aglietta, M., Al Samarai, I., Albuquerque, I. F. M., Allekotte, I., ... Zuccarello, F. (2017). Multi-resolution anisotropy studies of ultrahigh-energy cosmic rays detected at the Pierre Auger Observatory. *Journal of Cosmology and Astroparticle Physics*, 2017(6). <https://doi.org/10.1088/1475-7516/2017/06/026>
- Aab, A., Abreu, P., Aglietta, M., Al Samarai, I., Albuquerque, I. F. M., Allekotte, I., ... Zong, Z. (2017). Search for photons with energies above 1018eV using the hybrid detector of the Pierre Auger Observatory. *Journal of Cosmology and Astroparticle Physics*, 2017(4). <https://doi.org/10.1088/1475-7516/2017/04/009>
- Aab, A., Abreu, P., Aglietta, M., Samarai, I. A., Albuquerque, I. F. M., Allekotte, I., ... Zong, Z. (2017). Combined fit of spectrum and composition data as measured by the Pierre Auger Observatory. *Journal of Cosmology and Astroparticle Physics*, 2017(4). <https://doi.org/10.1088/1475-7516/2017/04/038>
- Aab, A., Abreu, P., Aglietta, M., Samarai, I. A., Albuquerque, I. F. M., Allekotte, I., ... Zuccarello, F. (2017). Observation of a large-scale anisotropy in the arrival directions of cosmic rays above 8×10^{18} eV. *Science*, 357(6357), 1266–1270. <https://doi.org/10.1126/science.aan4338>

- Aab, A., Abreu, P., Aglietta, M., Samarai, I. A., Albuquerque, I. F. M., Allekotte, I., ... Zuccarello, F. (2017). A Targeted Search for Point Sources of EeV Photons with the Pierre Auger Observatory. *Astrophysical Journal Letters*, 837(2). <https://doi.org/10.3847/2041-8213/aa61a5>
- Abbott, B. P., Abbott, R., Abbott, T. D., Acernese, F., Ackley, K., Adams, C., ... Woudt, P. A. (2017). Multi-messenger observations of a binary neutron star merger. *Astrophysical Journal Letters*, 848(2). <https://doi.org/10.3847/2041-8213/aa91c9>
- Albert, A., André, M., Anghinolfi, M., Ardid, M., Aubert, J.-J., Aublin, J., ... Zweizig, J. (2017). Search for High-energy Neutrinos from Binary Neutron Star Merger GW170817 with ANTARES, IceCube, and the Pierre Auger Observatory. *Astrophysical Journal Letters*, 850(2). <https://doi.org/10.3847/2041-8213/aa9aed>
- Berat, C., Aab, A., Abreu, P., Aglietta, M., Ahn, E. J., Al Samarai, I., ... Zuccarello, F. (2017). The Pierre Auger Observatory status and latest results. In *EPJ Web of Conferences* (Vol. 136). <https://doi.org/10.1051/epjconf/201713602017>
- Di Matteo, A., Aab, A., Abreu, P., Aglietta, M., Ahn, E. J., Al Samarai, I., ... Zuccarello, F. (2017). Astrophysical interpretation of Pierre Auger Observatory measurements of the UHECR energy spectrum and mass composition. In *EPJ Web of Conferences* (Vol. 136). <https://doi.org/10.1051/epjconf/201713602002>
- Marsella, G., Aab, A., Abreu, P., Aglietta, M., Ahn, E. J., Al Samarai, I., ... Zuccarello, F. (2017). The Pierre Auger Observatory Upgrade. In *EPJ Web of Conferences* (Vol. 136). <https://doi.org/10.1051/epjconf/201713602003>
- Revenu, B., Aab, A., Abreu, P., Aglietta, M., Ahn, E. J., Al Samarai, I., ... Zuccarello, F. (2017). Exploiting the radio signal from air showers: The AERA progress. In *EPJ Web of Conferences* (Vol. 136). <https://doi.org/10.1051/epjconf/201713602013>
- Aab, A., Abreu, P., Aglietta, M., Albuquerque, I. F. M., Allekotte, I., Almela, A., ... Zuccarello, F. (2018). 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*, 853(2). <https://doi.org/10.3847/2041-8213/aaa66d>