

ALBRECHT KARLE

PUBLICATIONS

BOOKS

Neutrino Astronomy: Current Status, Future Prospects; Tom Gaisser and Albrecht Karle (editor), World Scientific, 2017.

PUBLICATIONS IN REFEREED JOURNALS

1. *Multiwavelength observations of a flaring blazar coincident with an IceCube high-energy neutrino, IceCube, Fermi-LAT, MAGIC, AGILE, ASAS-SN, HAWC, H.E.S.S, INTEGRAL, Kapteyn, Kanata, Kiso, Liverpool, Subaru, Swift, VERITAS, and VLA collaborations, submitted to Science (2018)
2. *Evidence for neutrino emission from the direction of the blazar TXS 0506+056, IceCube Collaboration: Aartsen, M. G., et al., to be submitted by Feb 17 to Science (2018)
3. A Search for Neutrino Emission from Fast Radio Bursts with Six Years of IceCube Data, IceCube Collaboration: M. G. Aartsen et al., submitted to the Astrophysical Journal (2017), arXiv:1712.06277
4. Measurement of the Multi-TeV Neutrino Cross Section with IceCube Using Earth Absorption, The IceCube Collaboration: M. G. Aartsen et al., Nature 551 (2017) 596-600
5. Search for High-energy Neutrinos from Binary Neutron Star Merger GW170817 with ANTARES, IceCube, and the Pierre Auger Observatory, Antares, IceCube, Pierre Auger, LIGO Scientific, and Virgo Collaborations: A. Albert et al., Astrophysical Journal Letters 850 (2017) L35, arXiv:1710.05839
6. Constraints on Galactic Neutrino Emission with Seven Years of IceCube Data, IceCube Collaboration: M. G. Aartsen et al., Astrophysical Journal 849 (2017) 67, arXiv:1707.03416
7. Multi-messenger Observations of a Binary Neutron Star Merger, B. P. Abbott et al., Astrophysical Journal Letters 848 (2017) L12

8. Search for Nonstandard Neutrino Interactions with IceCube DeepCore, IceCube Collaboration: M. G. Aartsen et al., Submitted to Physical Review D (2017), arXiv:1709.07079
9. Search for Neutrinos from Dark Matter Self-Annihilations in the Center of the Milky Way with 3 years of IceCube/DeepCore, IceCube Collaboration: M. G. Aartsen et al., European Physical Journal C77 (2017) 627, arXiv:1705.08103
10. Measurement of Atmospheric Neutrino Oscillations at 6-56 GeV with IceCube DeepCore, IceCube Collaboration: M. G. Aartsen et al., Submitted to Physical Review Letters (2017), arXiv:1707.07081
11. Search for High-energy Neutrinos from Gravitational Wave Event GW151226 and Candidate LVT151012 with ANTARES and IceCube, ANTARES, IceCube, LIGO Scientific, and Virgo Collaborations, Physical Review D96 (2017) 022005, arXiv:1703.06298
12. Astrophysical Neutrinos and Cosmic Rays Observed by IceCube, IceCube Collaboration: M. G. Aartsen et al., Advances in Space Research, in press, doi:10.1016/j.asr.2017.05.030, arXiv:1701.03731
13. Measurement of the ν_{μ} Energy Spectrum with IceCube-79, IceCube Collaboration: M. G. Aartsen et al., European Physical Journal C77 (2017) 692, arXiv:1705.08103
14. Search for astrophysical sources of neutrinos using cascade events in IceCube, IceCube Collaboration: Aartsen, M. G., et al., Astrophysical Journal 846 (2017) 136; arXiv:1705.02383
15. The IceCube Realtime Alert System, IceCube Collaboration: Aartsen, M. G., et al., Astroparticle Physics 92 (2017) 30-41; arXiv:1612.06028
16. PINGU: A Vision for Neutrino and Particle Physics at the South Pole, IceCube Collaboration: Aartsen, M. G., et al., J.Phys. G44 (2017) no.5, 054006; arXiv:1607.02671
17. Search for annihilating dark matter in the Sun with 3 years of IceCube data, IceCube Collaboration: Aartsen, M. G., et al., Eur.Phys.J. C77 (2017) no.3, 146; arXiv:1612.05949
18. Search for High-energy Neutrinos from Gravitational Wave Event GW151226 and Candidate LVT151012 with ANTARES and IceCube, ANTARES and IceCube and LIGO Scientific and Virgo Collaborations (A. Albert (Haute Alsace U., GRPHE) et al., submitted to Physical Review D (2017); arXiv:1703.06298

19. *The IceCube Neutrino Observatory: Instrumentation and Online Systems, IceCube Collaboration: Aartsen, M. G., et al., JINST 12 (2017) no.03, P03012; arXiv:1612.05093
20. Extending the search for muon neutrinos coincident with gamma-ray bursts in IceCube data, IceCube Collaboration: Aartsen, M. G., et al., The Astrophysical Journal 843 (2017) 112; arXiv:1702.06868
21. First search for dark matter annihilations in the Earth with the IceCube Detector, IceCube Collaboration: Aartsen, M. G., et al., Eur.Phys.J. C77 (2017) no.2, 82; arXiv:1609.01492
22. Multiwavelength follow-up of a rare IceCube neutrino multiplet, IceCube Collaboration: Aartsen, M. G., et al., submitted to Astronomy & Astrophysics (2017); arXiv:1702.06131
23. Search for sterile neutrino mixing using three years of IceCube DeepCore data, IceCube Collaboration: Aartsen, M. G., et al., Physical Review D95 (2017) 112002; arXiv:1702.05160
24. All-sky Search for Time-integrated Neutrino Emission from Astrophysical Sources with 7 years of IceCube Data, IceCube Collaboration: Aartsen, M. G., et al., Astrophys.J. 835 (2017) no.2, 151; arXiv:1609.04981
25. Neutrinos and Cosmic Rays Observed by IceCube, IceCube Collaboration: Aartsen, M. G., et al., submitted to Advances in Space Research (2017); arXiv:1701.03731
26. The contribution of Fermi-2LAC blazars to the diffuse TeV-PeV neutrino flux, IceCube Collaboration: Aartsen, M. G., et al., Astrophys.J. 835 (2017) no.1, 45; arXiv:1611.03874
27. First search for a dark matter annual modulation signal with NaI(Tl) in the Southern Hemisphere by DM-Ice17, DM-Ice Collaboration (E. Barbosa de Souza (Yale U.) et al.), Phys.Rev. D95 (2017) no.3, 032006, FERMILAB-PUB-16-043-AE; arXiv:1602.05939
28. Constraints on Ultrahigh-Energy Cosmic-Ray Sources from a Search for Neutrinos above 10 PeV with IceCube, IceCube Collaboration: Aartsen, M. G., et al., Phys.Rev.Lett. 117 (2016) no.24, 241101; arXiv:1607.05886
29. Observation and Characterization of a Cosmic Muon Neutrino Flux from the Northern Hemisphere using six years of IceCube data, IceCube Collaboration: Aartsen, M. G., et al., Astrophys.J. 833 (2016) no.1, 3; arXiv:1607.08006

30. Very High-Energy Gamma-Ray Follow-Up Program Using Neutrino Triggers from IceCube, IceCube and MAGIC and VERITAS Collaborations (M. G. Aartsen et al.), JINST 11 (2016) no.11, P11009; arXiv:1610.01814
31. Search for Sources of High-Energy Neutrons with four Years of Data from the IceTop Detector, IceCube Collaboration: Aartsen, M. G., et al., Astrophys.J. 830 (2016) no.2, 129; arXiv:1607.05614
32. Neutrino oscillation studies with IceCube-DeepCore, IceCube Collaboration: Aartsen, M. G., et al., Nuclear Physics B908 (2016) 161-177
33. Searches for Sterile Neutrinos with the IceCube Detector, IceCube Collaboration: Aartsen, M. G., et al., Physical Review Letters 117 (2016) 071801; arXiv:1605.01990
34. High-energy Neutrino follow-up search of Gravitational Wave Event GW150914 with ANTARES and IceCube, Adrián-Martínez, S., et al., Physical Review D93 (2016) 122010; arXiv:1602.05411
35. Lowering IceCube's Energy Threshold for Point Source Searches in the Southern Sky, IceCube Collaboration: Aartsen, M. G., et al., Astrophysical Journal Letters 824 (2016) L28; arXiv:1605.00163
36. An All-Sky Search for Three Flavors of Neutrinos from Gamma- Ray Bursts with the IceCube Neutrino Observatory, IceCube Collaboration: Aartsen, M. G., et al., Astrophysical Journal 824 (2016) 115; arXiv:1601.06484
37. All-flavour Search for Neutrinos from Dark Matter Annihilations in the Milky Way with IceCube/DeepCore, IceCube Collaboration: Aartsen, M. G., et al., The European Physical Journal C76 (2016) 531; arXiv:1606.00209
38. The First Combined Search for Neutrino Point-sources in the Southern Hemisphere with the ANTARES and IceCube Neutrino Telescopes, Adrián-Martínez, S., et al., The Astrophysical Journal 823.1 (2016): 65; arXiv:1511.02149
39. Characterization of the atmospheric muon flux in IceCube, IceCube Collaboration: Aartsen, M. G., et al., Astroparticle Physics 78 (2016): 1-27; arXiv:1506.07981
40. Improved limits on dark matter annihilation in the Sun with the 79-string IceCube detector and implications for supersymmetry, IceCube Collaboration: Aartsen, M.

G., et al., Journal of Cosmology and Astroparticle Physics 2016.04 (2016): 022; arXiv:1601.00653

41. Searches for relativistic magnetic monopoles in IceCube, IceCube Collaboration: Aartsen, M. G., et al., The European Physical Journal C 76.3 (2016): 1-16; arXiv:1511.01350
42. Anisotropy in Cosmic-Ray Arrival Directions in the Southern Hemisphere with Six Years of Data from the IceCube Detector, IceCube Collaboration: Aartsen, M. G., et al., The Astrophysical Journal 826 (2016) 220; arXiv:1603.01227
43. 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, IceCube Collaboration: Aartsen, M. G., et al., Journal of Cosmology and Astroparticle Physics 2016.01 (2016) 37; arXiv:1511.09408
44. The search for transient astrophysical neutrino emission with IceCube-DeepCore, IceCube Collaboration: Aartsen, M. G., et al., The Astrophysical Journal 816.2 (2016): 75; arXiv:1509.05029
45. Search for astrophysical tau neutrinos in three years of IceCube data, IceCube Collaboration: Aartsen, M. G., et al., Physical Review D 93.2 (2016): 022001; arXiv:1509.06212
46. Search for dark matter annihilation in the Galactic Center with IceCube-79, IceCube Collaboration: Aartsen, M. G., et al., The European Physical Journal C 75.10 (2015): 1-12; arXiv:1505.07259
47. *Evidence for astrophysical muon neutrinos from the northern sky with IceCube, IceCube Collaboration: Aartsen, M. G., et al., Physical Review Letters 115.8 (2015): 081102; arXiv:1507.04005
48. A combined maximum-likelihood analysis of the high-energy astrophysical neutrino flux measured with IceCube, IceCube Collaboration: Aartsen, M. G., et al., The Astrophysical Journal 809.1 (2015): 98; arXiv:1507.03991
49. Searches for Time-dependent Neutrino Sources with IceCube Data from 2008 to 2012, IceCube Collaboration: Aartsen, M. G., et al., The Astrophysical Journal 807.1 (2015): 46; arXiv:1503.00598
50. Measurement of the Atmospheric ν_e Spectrum with IceCube, IceCube Collaboration: Aartsen, M. G., et al., Physical Review D 91.12 (2015): 122004; arXiv:1504.03753

51. Searches for small-scale anisotropies from neutrino point sources with three years of IceCube data, IceCube Collaboration: Aartsen, M. G., et al., *Astroparticle Physics* 66 (2015): 39-52; arXiv:1408.0634
52. Search for prompt neutrino emission from gamma-ray bursts with IceCube, IceCube Collaboration: Aartsen, M. G., et al., *The Astrophysical Journal Letters* 805.1 (2015): L5; arXiv:1412.6510
53. Flavor ratio of astrophysical neutrinos above 35 TeV in IceCube, IceCube Collaboration: Aartsen, M. G., et al., *Physical Review Letters* 114.17 (2015): 171102; arXiv:1502.03376
54. Determining neutrino oscillation parameters from atmospheric muon neutrino disappearance with three years of IceCube DeepCore data, IceCube Collaboration: Aartsen, M. G., et al., *Physical Review D* 91.7 (2015): 072004; arXiv:1410.7227
55. Development of a general analysis and unfolding scheme and its application to measure the energy spectrum of atmospheric neutrinos with IceCube, IceCube Collaboration: Aartsen, M. G., et al., *The European Physical Journal C* 75.3 (2015): 1-14; arXiv:1409.4535
56. Multipole analysis of IceCube data to search for dark matter accumulated in the Galactic halo, IceCube Collaboration: Aartsen, M. G., et al., *The European Physical Journal C* 75.1 (2015): 1-16; arXiv:1406.6868
57. *Atmospheric and astrophysical neutrinos above 1 TeV interacting in IceCube, IceCube Collaboration: Aartsen, M. G., et al., *Physical Review D* 91.2 (2015): 022001; arXiv:1410.1749
58. The IceProd framework: Distributed data processing for the IceCube neutrino observatory, IceCube Collaboration: Aartsen, M. G., et al., *Journal of parallel and distributed computing* 75 (2015): 198-211; arXiv:1311.5904
59. Searches for Time Dependent Neutrino Sources with IceCube Data from 2008 to 2012, IceCube Collaboration, *Ap.J.* 807 (2015) 46; arXiv:1503.00598
60. *First Constraints on the Ultra-High Energy Neutrino Flux from a Prototype Station of the Askaryan Radio Array, ARA Collaboration (P. Allison et al.). *Astropart. Phys.* 70 (2015) 62-80; arXiv:1404.5285
61. *Searches for extended and point-like neutrino sources with four years of IceCube data, IceCube Collaboration: Aartsen, M. G., et al., *The Astrophysical Journal* 796.2 (2014): 109; arXiv:1406.6757

62. Multimessenger search for sources of gravitational waves and high-energy neutrinos: Initial results for LIGO-Virgo and IceCube, *Physical Review D* 90.10:102002 (2014); arXiv:1407.1042
63. *Observation of high-energy astrophysical neutrinos in three years of IceCube data, IceCube Collaboration: Aartsen, M. G., et al., *Physical Review Letters* 113.10:101101 (2014); arXiv:1405.5303
64. Search for non-relativistic magnetic monopoles with IceCube, IceCube Collaboration: Aartsen, M. G., et al., *The European Physical Journal C* 74.7 (2014): 1-19; arXiv:1402.3460
65. Observation of the cosmic-ray shadow of the Moon with IceCube, IceCube Collaboration: Aartsen, M. G., et al., *Physical Review D* 89.10 (2014): 102004; arXiv:1305.6811
66. Search for neutrino-induced particle showers with IceCube-40, IceCube Collaboration: Aartsen, M. G., et al., *Physical Review D* 89.10 (2014): 102001; arXiv:1312.0104
67. Search for a diffuse flux of astrophysical muon neutrinos with the IceCube 59-string configuration, IceCube Collaboration: Aartsen, M. G., et al., *Physical Review D* 89.6 (2014): 062007; arXiv:1312.0104
68. *Energy reconstruction methods in the IceCube neutrino telescope, IceCube Collaboration: Aartsen, M. G., et al., *Journal of Instrumentation* 9.03 (2014): P03009; arXiv:1311.4767
69. *Modeling hole size and fuel consumption in hot-water ice drilling, L. Greenler, T. Benson, J. Cherwinka, A. Elcheikh, F. Feyzi, A. Karle, R. Paulos, *Annals of Glaciology* 55(68) (2014)
70. *A generalized self-veto probability for atmospheric neutrinos, (T.K. Gaisser, K. Jero, A. Karle, and J. van Santen), *Phys. Rev. D* 90 (2014) 023009; arXiv:1405.0525
71. Improvement in Fast Particle Track Reconstruction with Robust Statistics (IceCube Collaboration), *Nuclear Instruments and Methods A* 736 (2014) 143-149; arXiv:1308.5501
72. An IceCube Search for Dark Matter Annihilation in Nearby Galaxies and Galaxy Clusters (IceCube Collaboration), *Physical Review D* 88 (2013) 122001; arXiv:1307.3473

73. *Search for Time-Independent Neutrino Emission from Astrophysical Sources with 3 years of IceCube Data (IceCube Collaboration), *Astrophysical Journal* 779 (2013) 132; arXiv:1307.6669
74. Probing the Origin of Cosmic-Rays with Extremely High Energy Neutrinos Using the IceCube Observatory (IceCube Collaboration), *Physical Review D* 88 (2013) 112008; arXiv:1310.5477
75. *Evidence for High-Energy Extraterrestrial Neutrinos at the IceCube Detector (IceCube Collaboration), *Science* 342 (2013) 1242856; arXiv:1311.5238
76. South Pole Glacial Climate Reconstruction from Multi-Borehole Laser Particulate Stratigraphy (IceCube Collaboration), *Journal of Glaciology* 59 (2013) 1117-1128
77. Measurement of Atmospheric Neutrino Oscillations with IceCube (IceCube Collaboration), *Physical Review Letters* 111 (2013) 081801; arXiv:1305.3909
78. Measurement of the Cosmic Ray Energy Spectrum with IceTop-73 (IceCube Collaboration), *Physical Review D* 88 (2013) 042004; arXiv:1307.3795
79. *All-Particle Cosmic Ray Energy Spectrum Measured with 26 IceTop Stations (IceCube Collaboration), *Astroparticle Physics* 44 (2013) 40-58; arxiv:1202.3039
80. An Improved Method for Measuring Muon Energy Using the Truncated Mean of dE/dx (IceCube Collaboration), *Nuclear Instruments and Methods*, A703 (2013) 190-198; arxiv:1208.3430
81. *Cosmic Ray Composition and Energy Spectrum from 1-30 PeV Using the 40-String Configuration of IceTop and IceCube (IceCube Collaboration), *Astroparticle Physics* 42 (2013) 15-32; arxiv:1207.3455
82. First Observation of PeV-energy Neutrinos with IceCube (IceCube Collaboration), *Physical Review Letters* 111 (2013) 021103; e-print archive arXiv:1304.5356
83. IceTop: The Surface Component of IceCube (IceCube Collaboration), *Nuclear Instruments and Methods* A700 (2013) 188-220; arXiv:1207.6326
84. Lateral Distribution of Muons in IceCube Cosmic Ray Events (IceCube Collaboration), *Physical Review D* 87 (2013) 012005; arxiv:1208.2979
85. *Measurement of South Pole Ice Transparency with the IceCube LED Calibration System (IceCube Collaboration), *Nuclear Instruments and Methods* A711 (2013) 73-89; arXiv:1301.5361
86. Measurement of the Atmospheric ν_e Flux in IceCube (IceCube Collaboration), *Physical Review Letters* 110 (2013) 151105; arXiv:1212.4760

87. Observation of Cosmic Ray Anisotropy with the IceTop Air Shower Array (IceCube Collaboration), *Astrophysical Journal* 765 (2013) 55; e-print archive arXiv:1210.5278
88. Search for Dark Matter Annihilations in the Sun with the 79-string IceCube Detector (IceCube Collaboration), *Physical Review Letters* 110 (2013) 131302; arXiv:1212.4097
89. Search for Galactic PeV Gamma Rays with the IceCube Neutrino Observatory (IceCube Collaboration), *Physical Review* **D87** (2013) 062002; arXiv:1210.7992
90. Search for Relativistic Magnetic Monopoles with IceCube (IceCube Collaboration), *Physical Review* D87 (2013) 022001; arxiv:1208.4861
91. Searches for High-Energy Neutrino Emission in the Galaxy with the Combined IceCube-AMANDA Detector (IceCube Collaboration), *Astrophysical Journal* 763 (2013) 33; arXiv:1210.3273
92. A Search for the Dark Matter Annual Modulation in South Pole Ice, J. Cherwinka et al., *Astroparticle Physics* 35 (2012) 749-754; arxiv:1106.1156
93. An Absence of Neutrinos Associated with Cosmic-Ray Acceleration in Gamma-Ray Bursts (IceCube Collaboration), *Nature* 484 (2012) 351-354
94. Background Studies for Acoustic Neutrino Detection at the South Pole (IceCube Collaboration), *Astropart. Phys.* 35 (2012) 312-324
95. *Design and Initial Performance of the Askaryan Radio Array Prototype EeV Neutrino Detector at the South Pole, P. Allison et al. (ARA collaboration) arXiv:1105.2854, 24 pages, *Astropart. Phys.* 35 (2012) 457-477
96. Multiyear Search for Dark Matter Annihilations in the Sun with the AMANDA-II and IceCube Detectors (IceCube Collaboration), *Physical Review* D85 (2012) 042002
97. Neutrino Analysis of the 2010 September Crab Nebula Flare and Time-Integrated Constraints on Neutrino Emission from the Crab using IceCube (IceCube Collaboration), *Astrophysical Journal* 745 (2012) 45
98. Observation of Anisotropy in the Galactic Cosmic-Ray Arrival Directions at 400 TeV with IceCube (IceCube Collaboration), *Astrophysical Journal* 746 (2012) 33
99. Search for Ultrahigh-energy Tau Neutrinos with IceCube (IceCube Collaboration), *Physical Review* D86 (2012) 022005

100. Searches for Periodic Neutrino Emission from Binary Systems with 22 and 40 Strings of IceCube (IceCube Collaboration), *Astrophysical Journal* 748 (2012) 118
101. Searching for Soft Relativistic Jets in Core-collapse Supernovae with the IceCube Optical Follow-up Program (IceCube and ROTSE Collaboration), *Astronomy and Astrophysics* 539 (2012) A60
102. The Design and Performance of IceCube DeepCore (IceCube Collaboration), *Astroparticle Physics* 35 (2012) 615-624
103. Time-Dependent Searches for Point Sources of Neutrinos with the 40-String and 22-String Configurations of IceCube (IceCube Collaboration), *Astrophysical Journal* 744 (2012) 1
104. Use of Event-Level Neutrino Telescope Data in Global Fits for Theories of New Physics, P. Scott, C. Savage, J. Edsjö and the IceCube Collaboration: R. Abbasi et al., *Journal of Cosmology and Astroparticle Physics* 11 (2012) 057; arxiv:1207.0810
105. Constraints on High-Energy Neutrino Emission from SN 2008D (IceCube Collaboration), *Astronomy and Astrophysics* 527 (2011) A28
106. Constraints on the Extremely-high Energy Cosmic Neutrino Flux with the IceCube 2008-2009 Data (IceCube Collaboration), *Physical Review D* 83 (2011) 092003; Erratum *ibid* D84 (2011) 079902(E)
107. First Search for Atmospheric and Extraterrestrial Neutrino-Induced Cascades with the IceCube Detector (IceCube Collaboration), *Physical Review D* 84 (2011) 072001
108. IceCube Sensitivity for Low-Energy Neutrinos from Nearby Supernovae (IceCube Collaboration), *Astronomy and Astrophysics* 535 (2011) A109
109. Limits on Neutrino Emission from Gamma-Ray Bursts with the 40 String IceCube Detector (IceCube Collaboration), *Physical Review Letters* 106 (2011) 141101
110. Measurement of Acoustic Attenuation in South Pole Ice (IceCube Collaboration), *Astroparticle Physics* 34 (2011) 382-393
111. Measurement of the Atmospheric Neutrino Energy Spectrum from 100 GeV to 400 TeV with IceCube (IceCube Collaboration), *Physical Review D* 83 (2011) 012001

112. Observation of Anisotropy in the Arrival Directions of Galactic Cosmic Rays at Multiple Angular Scales with IceCube (IceCube Collaboration), *Astrophysical Journal* 740 (2011) 16
113. Search for a Diffuse Flux of Astrophysical Muon Neutrinos with the IceCube 40-String Detector (IceCube Collaboration), *Physical Review D* 84 (2011) 082001
114. Search for Dark Matter from the Galactic Halo with the IceCube Neutrino Telescope (IceCube Collaboration), *Physical Review D* 84 (2011) 022004
115. Search for Neutrino-Induced Cascades with Five Years of AMANDA Data (IceCube Collaboration), *Astroparticle Physics* 34 (2011) 420-430
116. Time-Integrated Searches for Point-like Sources of Neutrinos with the 40-String IceCube Detector (IceCube Collaboration), *Astrophysical Journal* 732 (2011) 18
117. Search for a Lorentz-violating sidereal signal with atmospheric neutrinos in IceCube (IceCube collaboration), *Phys. Rev. D* **82** 112003 (2010); arXiv:1010.4096
118. The first search for extremely high-energy cosmogenic neutrinos with the IceCube neutrino observatory (IceCube collaboration), *Phys. Rev. D* **82** 072003 (2010); arXiv:1009.1442
119. Measurement of the Anisotropy of Cosmic Ray Arrival Directions with IceCube (IceCube collaboration), *Astrophys. J. Lett.* **718** L194 (2010); arXiv:1005.2960v1
120. Review of particle physics. By Particle Data Group (K. Nakamura et al.). 2010. 1422pp. Published in *J.Phys.G*37:075021 (2010)
121. Search for relativistic magnetic monopoles with the AMANDA-II Neutrino Telescope (IceCube collaboration), *Euro. Phys. J. C* **69** 361 (2010)
122. The Energy Spectrum of Atmospheric Neutrinos between 2 and 200 TeV with the AMANDA-II Detector (IceCube Collaboration), *Astropart. Phys.* **34** 48 (2010); arXiv:1004.2357
123. Calibration and Characterization of the IceCube Photomultiplier Tube. By The IceCube Collaboration (R. Abbasi et al.). *Nucl.Instrum.Meth.A*618:139-152 (2010); arXiv:1002.2442
124. Limits on a muon flux from Kaluza-Klein dark matter annihilations in the Sun from the IceCube 22-string detector. By The IceCube collaboration (R.

Abbasi et al.). Phys.Rev.D81:057101 (2010); arXiv:0910.4480

125. Measurement of sound speed vs. depth in South Pole ice for neutrino astronomy. By IceCube Collaboration (R. Abbasi et al.). *Astropart.Phys.*33:277-286 (2010); arXiv:0909.2629
126. Search for muon neutrinos from Gamma-Ray Bursts with the IceCube neutrino telescope. By IceCube Collaboration (R. Abbasi et al.). *Astrophys. J.* 710:346-359 (2010); arXiv:0907.2227
127. Time-Dependent Point Source Search Methods in High Energy Neutrino Astronomy. Jim Braun, Mike Baker, Jon Dumm, Chad Finley, Albrecht Karle, Teresa Montaruli, *Astropart.Phys.*33:175-181 (2010); arXiv:0912.1572
128. Determination of the Atmospheric Neutrino Flux and Searches for New Physics with AMANDA-II, A. Achterberg et al. (IceCube collaboration), *Phys.Rev.D*79:102005 (2009)
129. Extending the search for neutrino point sources with IceCube above the horizon. By The IceCube Collaboration (R. Abbasi et al.). *Phys.Rev.Lett.*103:221102 (2009); arXiv:0911.2338
130. First neutrino point-source results from the 22-string IceCube detector (IceCube collaboration), *Astrophys. J. Lett.* **701** L47 (2009); arXiv:0905.2253
131. Limits on a muon flux from neutralino annihilations in the Sun with the IceCube 22-string detector. By ICECUBE Collaboration (R. Abbasi et al.), *Rev. Lett.*102:201302 (2009); arXiv:0902.2460
132. Limits on a muon flux from neutralino annihilations in the Sun with the IceCube 22-string detector, R. Abbasi, et al. (IceCube collaboration), *Physical Review Letters* **102** (2009) 201302
133. The Search for Muon Neutrinos from Northern Hemisphere Gamma-Ray Bursts with AMANDA, A. Achterberg et al. (IceCube Collaboration and InterPlanetary Network), *Astrophysical Journal* 674 (2008) 357-370
134. Search for high-energy muon neutrinos from the “naked-eye” GRB 080319B with the IceCube Neutrino Telescope (IceCube collaboration), *Astrophys. J.* **701** 1721(2009), erratum *ibid* **708** 911 (2010); arXiv:0902.0131
135. Search for point sources of high-energy neutrinos with final data from AMANDA-II, IceCube collaboration, *Physical Review* **D79** (2009) 062001; astro-ph/08091646
136. Solar energetic particle spectrum on 13 December 2006 determined by IceTop, *Astrophysical Journal Letters* **689** (2008) L65-L68, astro-ph/08102034

137. Methods for point-source analysis in high-energy neutrino telescopes, Jim Braun, Jon Dumm, Francesco De Palma, Chad Finley, Albrecht Karle, Teresa Montaruli, *Astropart. Phys.* **29** 299-305 (2008); astro-ph/08011604
138. A radio air shower surface detector as an extension for IceCube and IceTop, with J. Auffenberg, et al.; astro-ph/07083331
139. The IceCube Data Acquisition Subsystem: Signal capture, digitization, and time-stamping, IceCube collaboration, *Nuclear Instruments and Methods* **A601** (2009) 294-316
140. Search for ultra-high-energy neutrinos with AMANDA-II, M. Ackerman et al. (IceCube collaboration), *Astrophys. Jour.* **675** 2 1014-1024 (2008); astro-ph/07113022
141. Comparison of high energy interaction models used for atmospheric shower simulations above 1 TeV (with G. Battistoni, R. Ganugapati, J.L. Kelley, and T. Montaruli), *J. Phys. Conf. Ser.* **60** 330-333 (2007)
142. Multi-year search for a diffuse flux of muon neutrinos with AMANDA-II, IceCube collaboration, A. Achterberg et al., *Phys. Rev. D* **76** 042008 (2007); erratum *ibid.* **77** (2008) 089904(E); astro-ph/0705.1315
143. Detection of atmospheric muon neutrinos with the IceCube 9-string detector, IceCube collaboration, *Phys. Rev. D* **76** 027101 (2007); astro-ph/07051781
144. The search for muon neutrinos from Northern Hemisphere gamma-ray bursts with the Antarctic Muon and Neutrino Detector Array (AMANDA), IceCube and IPN collaborations, *Astrophys. Jour.* **674**:1 357-370; astro-ph/07051186
145. Search for neutrino-induced cascades from gamma-ray bursts with AMANDA, IceCube collaboration, A. Achterberg, et al., *Astrophys. Jour.* **664** 397-410 (2007); astro-ph/0702265v2
146. Five years of searches for point sources of astrophysical neutrinos with the AMANDA-II neutrino telescope, IceCube collaboration, A. Achterberg, et al., *Phys. Rev. D* **75** 102001 (2007); astro-ph/0611063
147. Limits on the high-energy gamma and neutrino fluxes from the SGR 1806-20 giant flare of December 27th, 2004 with the AMANDA-II detector, Ice Cube collaboration, A. Achterberg, et al., *Phys. Rev. Lett.* **97** 221101 (2006); astro-ph/0607233

148. First year performance of the IceCube Neutrino Telescope, IceCube collaboration, A. Achterberg, et al., *Astroparticle Physics* **26** 155-173 (2006); astro-ph/0604450
149. On the selection of AGN neutrino source candidates for a source stacking analysis with neutrino telescopes, IceCube collaboration, A. Achterberg, et al., *Astropart. Phys.* **26** 282-300 (N-D 2006); astro-ph/0609534
150. Limits on the muon flux from neutralino annihilations at the center of the Earth with AMANDA, IceCube collaboration, A. Achterberg, et al., *Astropart. Phys.* **26** 126-139 (2006)
151. Optical properties of deep glacial ice at the South Pole, AMANDA collaboration, M. Ackermann, et al., *J. Geophys. Res.* **111** D13203, DOI:10.1029/2005JD006687 (2006)
152. Limits to the muon flux from neutralino annihilations in the Sun with the AMANDA detector, AMANDA collaboration, M. Ackermann, et al., *Astropart. Phys.* **24** 459-466 (2006) astro-ph/0508518
153. The IceCube prototype string in AMANDA, AMANDA collaboration, M. Ackermann, et al., *Nuclear Instruments and Methods A* **556** 169-181 (2006)
154. Muon flux at the geographical South Pole, (with X. Bai, et al.), *Astroparticle Physics* **25** 6 361-367 (2006); astro-ph/0602381
155. Search for extraterrestrial point sources of high energy Neutrinos with AMANDA-II using data collected in 2000-2002, AMANDA collaboration, M. Ackermann, et al., *Phys. Rev. D* **71**, 077102 (2005)
156. Flux limits on ultra high energy neutrinos with AMANDA-B10, AMANDA collaboration, M. Ackermann, et al., *Astropart. Phys.* **22** 339 (2005)
157. A deep high-resolution optical log of dust, ash and stratigraphy in South Pole glacial ice, IceCube Collaboration, *Geophys. Res. Lett.* **32** L21815 1-4 (2005)
158. Search for neutrino-induced cascades with AMANDA, AMANDA collaboration, M. Ackermann, et al., *Astropart. Phys.* **22** 127 (2004)
159. Search for extraterrestrial point sources of neutrinos with AMANDA-II, AMANDA collaboration, J. Ahrens, et al., *Phys. Rev. Lett.* **92** 071102 (2004)
160. Measurement of the cosmic ray composition at the Knee with the SPASE-2/AMANDA-B10 detectors, AMANDA/SPASE collaborations, J. Ahrens, et al., *Astropart. Phys.* **20** 565 (2004)

161. Calibration and survey of AMANDA with the SPASE detectors, AMANDA/SPASE collaborations, J. Ahrens, et al., Nucl. Instr. Meth. A **522** 347 (2004)
162. Muon track reconstruction and data selection techniques in AMANDA, AMANDA collaboration, J. Ahrens, et al., Nucl. Instr. Meth. A **524** 169 (2004)
163. Sensitivity of the IceCube detector to astrophysical sources of high energy muon neutrinos, IceCube collaboration, J. Ahrens, et al., Astropart. Phys. **20** 507 (2004)
164. Limits on diffuse fluxes of high energy extra-terrestrial neutrinos with the AMANDA-B10 detector, AMANDA collaboration, J. Ahrens, et al., Phys. Rev. Lett. **90** 251101 (2003)
165. Search for point sources of high energy neutrinos with AMANDA, AMANDA collaboration, J. Ahrens, et al., Astrophys. J. **583** 1040 (2003)
166. Search for neutrino-induced cascades with the AMANDA detector, AMANDA collaboration, J. Ahrens, et al., Phys. Rev. D **67** 012003 (2003)
167. Results from AMANDA, AMANDA collaboration, Mod. Phys. Lett. A **17** 2019 (2002)
168. Observation of high energy atmospheric neutrinos with AMANDA, AMANDA collaboration, Phys. Rev. D **66** 012005 (2002)
169. Limits to the muon flux from WIMP annihilation in the center of the Earth with the AMANDA detector, AMANDA collaboration, J. Ahrens, et al., Phys. Rev. D **66** 032006 (2002)
170. Search for supernova neutrino bursts with the AMANDA detector, AMANDA collaboration, J. Ahrens, et al., Astropart. Phys. **16** 345 (2002)
171. Observation of high-energy neutrinos using Cherenkov Detectors embedded deep in Antarctic ice, AMANDA collaboration, E. Andrés, et al., Nature **410** 441 (2001)
172. Fast analog signal transmission for an air Cherenkov photomultiplier camera using optical fibers (with J. Rose, et al.), Nucl. Instr. Meth. Phys. Res. A **442** 113 (2000)
173. The AMANDA neutrino telescope: Principle of operation and first results, AMANDA collaboration, E. Andrés, et al., Astropart. Phys. **13** 1 (2000)
174. In-situ measurements of optical parameters in Lake Baikal with the help of a neutrino telescope (with V. A. Balkanov, et al.), Appl. Optics **33** 6818 (1999)

175. The AMANDA neutrino telescope and the indirect search for dark matter, AMANDA collaboration, *Physics Reports* **307** 243 (1998)
176. Status of the Radio Ice Cherenkov Experiment (RICE) (with C. Allen, et al.), *New Astron. Rev.* **42** 319-329 (1998)
177. UV and optical light transmission properties in deep ice at the South Pole, AMANDA collaboration, P. Askebejar, et al., *Geophys. Res. Lett.* **24** 1355 (1997)
178. Optical properties of deep ice at the South Pole — Absorption, AMANDA collaboration, P. Askebejar, et al., *Appl. Optics* **36** 4168 (1997)
179. The Baikal underwater neutrino telescope: Design, performance and first results, Baikal collaboration, *Astropart. Phys.* **7** 263 (1997)
180. Separation of gamma and hadron initiated air showers with energies between 20 and 500 TeV (with F. Arqueros, et al.), *Astropart. Phys.* **4** 309 (1996)
181. Detection of gamma rays above 1 TeV from the Crab Nebula by the second HEGRA imaging atmospheric Cherenkov telescope at La Palma, HEGRA collaboration, *Astropart. Phys.* **4** 199 (1996)
182. Search for very high energy gamma radiation from the radio bright region DR4 of the SNR G78.2+2.1 (with C. Prosch, et al.), *Astron. Astrophys.* **314** 275 (1996)
183. Methods to determine the angular resolution of the HEGRA extended air shower scintillator array (with M. Merck, et al.), *Astropart. Phys.* **5** 379 (1996)
184. Monte Carlo simulation of the HEGRA cosmic ray detector performance, HEGRA collaboration, *Nucl. Instr. Meth. A* **357** 567 (1995)
185. Design and performance of the angle integrating Cherenkov array AIROBICC (with M. Merck, et al.), *Astropart. Phys.* **3** 321 (1995)
186. A search for gamma radiation above 24 TeV energy from cosmic point sources (with F. Arqueros, et al.), *Astropart. Phys.* **4** 1 (1995)
187. Search for isotropic γ radiation in the cosmological window between 65 and 200 TeV (HEGRA collaboration), *Phys. Lett. B* **347** 161 (1995)
188. A new air Cherenkov counter concept for the observation of extended air showers (with E. Lorenz, et al.), *Nucl. Instr. Meth. A* **315** 236 (1992)
189. A conceptual design of a 10^4 -km² detector for the observation of UHE cosmic rays above 10^{17} eV (with J. Busch, et al.), *Nucl. Phys. Proc. Suppl.* **288** 163 (1992)

190. An angle integrating air Cherenkov counter array for improved gamma/hadron separation in extended air showers (with Bott-Bodenhausen, et al.), MI-PHE-91-01 (1991)