Publication List

Peter B. Denton

Updated: September 29, 2017[1]

Articles

[1] P. B. Denton, D. Marfatia, and T. J. Weiler, "The Galactic Contribution to IceCube's Astrophysical Neutrino Flux," *JCAP* **1708** no. 08, (2017) 033, arXiv:1703.09721 [astro-ph.HE].

[2] P. Coloma, P. B. Denton, M. C. Gonzalez-Garcia, M. Maltoni, and T. Schwetz, "Curtailing the Dark Side in Non-Standard Neutrino Interactions," *JHEP* **04** (2017) 116, arXiv:1701.04828 [hep-ph].

[3] P. B. Denton, H. Minakata, and S. J. Parke, "Compact Perturbative Expressions For Neutrino Oscillations in Matter," *JHEP* **06** (2016) 051, arXiv:1604.08167 [hep-ph].

[4] P. B. Denton and T. J. Weiler, "Sensitivity of full-sky experiments to large scale cosmic ray anisotropies," *JHEAp* **8** (2015) 1–9, arXiv:1505.03922 [astro-ph.HE].

[5] P. B. Denton and T. J. Weiler, "The Fortuitous Latitude of the Pierre Auger Observatory and Telescope Array for Reconstructing the Quadrupole Moment," *Astrophys.J.* **802** no. 1, (2015) 25, arXiv:1409.0883 [astro-ph.HE].

[6] L. A. Anchordoqui, P. B. Denton, H. Goldberg, T. C. Paul, L. H. M. Da Silva, B. J. Vlcek, and T. J. Weiler, "Weinberg's Higgs portal confronting recent LUX and LHC results together with upper limits on B^+ and K^+ decay into invisibles," *Phys. Rev.* **D89** no. 8, (2014) 083513, arXiv:1312.2547 [hep-ph].

[7] P. B. Denton and T. J. Weiler, "Using Integral Dispersion Relations to Extend the LHC Reach for New Physics," *Phys. Rev.* **D89** no. 3, (2014) 035013, arXiv:1311.1248 [hep-ph].

[8] N. Arsene, L. I. Caramete, P. B. Denton, and O. Micu, "Quantum Black Holes Effects on the Shape of Extensive Air Showers," arXiv:1310.2205 [hep-ph].

[1] For the latest version see: peterdenton.github.io

Conference Proceedings

[1] **JEM-EUSO** Collaboration, P. B. Denton, L. A. Anchordoqui, A. A. Berlind, M. Richardson, and T. J. Weiler, "Sensitivity of orbiting JEM-EUSO to large-scale cosmic-ray anisotropies," *J.Phys.Conf.Ser.* **531** (2014) 012004, arXiv:1401.5757 [astro-ph.IM].

Talks

[1] "COHERENT and the LMA-Dark NSI Solution." https://indico.uu.se/event/324/call-for-abstracts/138/. **Invited** talk given at the NUFACT 2017 workshop September 2017 in Uppsala.

[2] "What We Can Tell About the Sources of IceCube's Neutrinos, and What IceCube Can Tell Us About Gamma Ray Bursts." http://astro.fnal.gov/events/event/tbd-35/. Astrophysics theory seminar at Fermilab August 2017 in Batavia, IL.

[3] "The Galactic Contribution to IceCube's Astrophysical Neutrino Flux." https://indico.cern.ch/event/615891/contributions/2608935/. Talk given at TeV Particle Astrophysics at CCAPP in Columbus, OH.

[4] "Finding Anisotropies in Cosmic Rays and Neutrinos." http://nbia.nbi.ku.dk/nbia-seminars/nbia-seminar-peter-denton/. **Invited** seminar at the Niels Bohr International Academy astroparticle seminar April 2017 in Copenhagen.

[5] "Analytic and compact perturbative expressions for neutrino oscillations in matter.". Talk given at the Center of Excellence for Particle Physics at the Terascale at the University of Melbourne December 2016.

[6] "Spherical Harmonics as a Tool for Finding Anisotropies in UHECR and Astrophysical Neutrino Fluxes.". **Invited** talk given at the Danish Astroparticle Physics Meeting October 2016 in Odense.

[7] "The Standard Neutrino Oscillation Parameters and a Surprising Alternative Solution.". **Invited** N-Talk at Niels Bohr International Academy September 2016 in Copenhagen.

[8] "Analytic and compact perturbative expressions for neutrino oscillations in matter." http://indico.cern.ch/event/432527/contributions/1071859/. Talk given at the International Conference of High Energy Physics August 2016 in Chicago, IL.

[9] "Analytic and compact perturbative expressions for neutrino oscillations in matter." http://theory.fnal.gov/seminars/seminars.html. **Invited** talk at the Fermilab theory seminar July 2016 in Batavia, IL.

[10] "Methods for Probing New Physics at High Energies." https://events.vanderbilt.edu/index.php?eID=90084. Successful dissertation defense at Vanderbilt University June 2016 in Nashville, TN.

[11] "Analytic and compact perturbative expressions for neutrino oscillations in matter." http://www.ccsem.infn.it/issp2016/index.html. Talk given at the International School of Subnuclear Physics May 2016 in Erice, Sicily.

[12] "Analytic and compact perturbative expressions for neutrino oscillations in matter." https://indico.cern.ch/event/489180/contributions/2158195/. Talk given at Pheno May 2016 in Pittsburgh, PA.

[13] "Cosmic Ray Anisotropy with Partial Sky Exposure.". **Invited** seminar November 2015 at CCAPP.

[14] "The Effect of a Maximum Lepton Energy on the Stability of Pions and Cosmic Ray Physics." http://meetings.aps.org/link/BAPS.2015.APR.M14.1. Talk given at the APS April meeting 2015 in Baltimore, MD.

[15] "Particle Physics at the Highest Energies.". **Invited** seminar December 2014 at the University of Wisconsin – Madison.

[16] "Sensitivity of orbiting JEM-EUSO to large-scale cosmic-ray anisotropies.". Talk given at the Cosmic Ray Anisotropy Workshop September 2013 in Madison, WI.

[17] "Using dispersion relations to look for new physics in pp elastic scattering at the LHC." http://meetings.aps.org/link/BAPS.2013.APR.H12.8. Talk given at the APS April meeting 2013 in Denver, CO.

Code

[1] P. B. Denton, "`ANA` v1.0.0: Astrophysical Neutrino Anisotropy," Mar., 2017. https://doi.org/10.5281/zenodo.438675. https://github.com/PeterDenton/ANA.

[2] P. B. Denton, "`Nu-Pert` v0.2.2: Analytic and compact perturbative expressions for neutrino oscillations in matter," June, 2016. https://doi.org/10.5281/zenodo.54629. https://github.com/PeterDenton/Nu-Pert.

Thesis

[1] P. B. Denton, *Methods for Probing New Physics at High Energies*. PhD thesis, Vanderbilt U., 2016-12-18. http://etd.library.vanderbilt.edu/available/etd-07052016-131020/.