Peter B. Denton

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Education

Ph.D. Physics, Vanderbilt University (in progress).

B.S. Physics, Rice University, 2010.

B.A. Mathematics, Rice University, 2010.

Honors and Awards

Vanderbilt Dissertation Enhancement Grant of $2,000 to attend the Theoretical Advanced Study Institute: Amplitudes For Colliders in June 2014, awarded April 2014.

Subsidy of $1,600 to attend the Theoretical Advanced Study Institute: Amplitudes For Colliders in June 2014, awarded April 2014.

Division of Particles & Fields travel grant of $120 to the APS April 2013 meeting, awarded March 2013.

The Robert T. Lagemann Award of $1,000 for highest academic achievement by a first-year graduate student, awarded April 2011.

"Topping-up" McMinn Fellowship of $5,000 a year of five years, awarded March 2010.

Employment

DOE funded research assistant with Thomas J. Weiler at Vanderbilt University, Spring 2011–Present.

Teaching assistant at Vanderbilt University, Fall 2010–Fall 2012.

Research assistant with Sokrates Pantelides at Vanderbilt University, Summer–Fall 2010.

Lee Teng Internship at Fermilab with Tanaji Sen, Summer 2009.

Teaching assistant for the Physics Department at Rice University, Fall 2009.

Bonner Labs at Rice University with Bill Llope, Summer 2008.

Writing consultant at Rice University, 2007–2010.

Selected Research Topics

High energy astroparticle physics.

Neutrino anisotropy at the highest energies as seen by IceCube.

Cosmic ray anisotropy at the highest energies as seen through Pierre Auger Observatory, Telescope Array, and EUSO.

Beyond the standard model contribution to integral dispersion integrals for pp scattering at LHC energies.

The possibility of cosmic rays producing black holes in the atmosphere.

Matching Weinberg's Higgs portal to N_{eff} measurements.

Language Skills

LaTeX, beamer, python, matplotlib, C++, ROOT, MATHEMATICA, MATLAB, FORTRAN, gnuplot, java, html, and javascript.

Teaching

Teaching assistant for various freshman physics labs, 2010-Present.

Tutoring English, math, and physics at middle school, high school, undergraduate, and graduate school levels, 2005-Present.

Professional Societies

Member, American Physical Society