

# 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*

Division of Particles & Fields travel grant to the APS April 2013 meeting.

The Robert T. Lagemann Award for highest academic achievement by a first-year graduate student.

“Topping-up” McMinn Fellowship.

## *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 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*

Cosmic ray anisotropy at the highest energies as seen through Pierre Auger Observatory and JEM-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  $N_{\text{eff}}$  measurements.

Characterizing electroweak bremsstrahlung with effective operators to reduce spin suppression.

## *Language Skills*

L<sup>A</sup>T<sub>E</sub>X, 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