

Roger Alexandre Wendell

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Education

Ph. D. Physics	University of North Carolina – Chapel Hill, August 2008
Thesis	<i>Three Flavor Oscillation Analysis of Atmospheric Neutrinos in Super-Kamiokande</i> , under K. Scholberg (Duke U.) and H. Karwowski (UNC)
M.S. Physics	University of North Carolina – Chapel Hill, May 2004
B.S. Physics	Louisiana State University, May 2002
B.A. Mathematics	Louisiana State University, May 2002

Appointments

July 2008 – Present Postdoctoral Associate in the Department of Physics, Duke University

Research Experience

- Super-Kamiokande Collaboration, under K. Scholberg 2005 - Present
- KamLAND Collaboration, under H. Karwowski 2003 – 2004
- Studies of dissipative atomic systems under A.R.P. Rau, 2001
- LSU Surface Science Group under R. Kurtz and R. Stockbauer 1999 – 2002, developed DAQ software for synchrotron radiation induced photoelectron spectroscopy
- NIST Summer Undergraduate Research Fellow 2001, developed NMR system for measuring the polarization of polarized ^3He

Presentations

- Annual meeting of the DNP of the APS, “Three-flavor neutrino oscillation analysis of atmospheric neutrinos in Super-Kamiokande,” Oct. 25-28th 2006
- SESAPS meeting “Three-flavor neutrino oscillation analysis of atmospheric neutrinos in Super-Kamiokande,” November 9-11th 2006

Invited Talks

- Virginia Polytechnic Institute and State University, HEP Seminar, April 9th 2008

Skills

- Programming Languages – Fortran, C, C++ , Perl, LabView
- Linux/Unix, shell scripting
- Software Packages for High Energy Physics – Paw, ROOT, GEANT
- Japanese Language – JLPT Level 2/ 日本語能力試験 2級 , February 2007
- Advanced German Language – International Baccalaureate SL exam 6/7, May 1998

Primary Publications

- J. Hosaka *et al.* , “Three flavor neutrino oscillation analysis of atmospheric neutrinos in Super-Kamiokande,” Phys.Rev. **D74** (2006) 032002 [arXiv:hep-ex/0604011].

- A.R.P. Rau and R.A. Wendell, “Embedding dissipation and decoherence in unitary evolution schemes,” *Phys. Rev. Lett.* **89**, 220405 (2002) [arXiv:quant-ph/0205113].

Other Publications

- Y. Takenaga *et al.* “Search for neutral Q-balls in super-Kamiokande II,” *Phys. Lett. B* **647** (2007) 18 [arXiv: hep-ex/060805].
- K. Abe *et al.* “A Measurement of atmospheric neutrino flux consistent with tau neutrino appearance,” *Phys. Rev. Lett.* **97** (2006) 171801 [arXiv:hep-ex/0607059].
- K. Abe *et al.* “High energy neutrino astronomy using upward-going muons in Super-Kamiokande-I,” *Astrophys. J.* **652** (2006) 198 [arXiv: astro-ph/0606413].
- M.E.C. Swanson *et al.* “Search for Diffuse Astrophysical Neutrino Flux Using Ultrahigh Energy Upward-Going Muons in Super-Kamiokande I,” *Astrophys.J.* **652** (2006):206 [arXiv: astro-ph/0606126].
- T. Araki *et al.* “Search for the invisible decay of neutrons with KamLAND,” *Phys. Rev. Lett.* **96** (2006) 101802 [arXiv: hep-ex/0512059].
- T. Araki *et al.* “Experimental investigation of geologically produced antineutrinos with KamLAND,” *Nature* **436** (2005) 499.
- T. Araki *et al.* “Measurement of neutrino oscillation with KamLAND: Evidence of spectral distortion,” *Phys. Rev. Lett.* **94** (2005) 081801 [arXiv: hep-ex/0406035]

Awards

- UNC Board of Governors Fellowship, 2002-2003

Teaching Experience

- Digital Electronics Lab, spring 2003, 2004
- Introductory Physics Recitation, spring 2005