

Curriculum Vitae

Andrew Noble

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Education:

- Cornell University, Ph.D. in Physics, August 2008. Lloyd P. Smith Award for promise in theoretical physics.
- The Johns Hopkins University, M.A.T. in Secondary Science, May 2002.
- Carleton College, B.A. in Physics, June 2000. Magna cum laude, Physics department honors, Phi Beta Kappa, Sigma Xi, Ohio state finalist for the Rhodes Scholarship.

Research Experience:

- Postdoctoral Fellow in Ecology, University of Maryland, College Park, August 2009 to present.
- Postdoctoral Fellow in Ecology, University of Texas at Austin, August 2008 to July 2009.
- Research/Teaching Assistant, Theory Group, Laboratory of Elementary Particle Physics, Cornell University, May 2004 to August 2008.

Publications:

- Higgs Self-Coupling as a Probe of Electroweak Phase Transition (with M. Perelstein), hep-ph/0711.3018, *Phys. Rev. D* **78**, 063518 (2008).
- Little Higgs Dark Matter (with A. Birkedal, M. Perelstein and A. Spray), hep-ph/0603077, *Phys. Rev. D* **74**, 035002 (2006). 50+ citations.
- Electroweak Precision Constraints on the Littlest Higgs Model with T Parity (with J. Hubisz, P. Meade and M. Perelstein), hep-ph/0506042, *JHEP* **0601**, 135 (2006). 100+ citations.
- “What causes motion? A lesson plan on Newton’s Second Law.” Purchased by the American Association for the Advancement of Science’s Project 2061 for use in their literature and workshops (2000).

Professional Schools, Conferences, and Talks:

- Complex Systems Summer School, Santa Fe Institute, Santa Fe, NM, June 2009 (seminar speaker).
- Particles, Strings, and Cosmology 2008, Perimeter Institute, Waterloo, Canada, June 2008 (speaker).
- Cornell Theory Seminar, Ithaca, NY, May 2008 (speaker).
- Korean Institute for Advanced Study, Seoul, Korea, July 2007 (invited seminar speaker).
- Monte Carlo Tools for Beyond the Standard Model, Princeton University, Princeton, NJ, March 2007 (speaker).
- Vancouver Linear Collider Workshop, Vancouver, Canada, July 2006 (invited speaker).
- Theoretical Advanced Study Institute, Boulder, CO, June 2006 (student and seminar speaker).
- Phenomenology, Madison, WI, May 2006 (parallel session speaker).
- 5th Syracuse-Cornell Theory Meeting, Syracuse, NY, December 2005 (speaker).
- Cornell Theory Seminar, Ithaca, NY, September 2005 (speaker).
- Princeton Institute for Theoretical Physics, Institute for Advanced Study, Princeton, NJ, July 2005 (student).

Talks for Undergraduates:

- Laboratory for Elementary Particle Physics REU Seminar, Cornell University, Ithaca, NY, June 2008.
- Wednesday Physics Lunch Talk, Cornell University, Ithaca, NY, November 2006.
- Invited Seminar, Carleton College, Northfield, MN, October 2005.

Teaching Experience:

- Particle Physics, Spring 2008. Served as sole TA. Delivered five lectures during the semester. Created a problem set covering details of the Standard Model and Higgs physics.
- Co-advisor of an NSF-REU student, Summer 2007. Supervised Zach Lamberty, a rising senior at Notre Dame, in simulating particle interactions on a lattice of coupled oscillators and the evolution of domain walls in the early universe.
- Physics of Music, a Writing in the Majors (WIM) course, Spring 2007. Served as sole TA with primary responsibility for the intensive writing component. Completed a concurrent course, Writing 701, on effective strategies for teaching writing across the disciplines. Worked with Julia Adolphe, whose term paper won the 2007 Knight Prize.

- Modern Experimental Optics, Fall 2006. Worked closely with the ten students enrolled in this advanced lab course, often with sole responsibility for lab instruction.
- Various introductory courses, Fall 2002 to Fall 2007. Prepared and led two recitation sections of approximately twenty students meeting twice each week as well as a lab section.
- Physics teacher and Teach for America corps member, Southwestern High School, Baltimore, MD, 2000 to 2002. Obtained full certification as a secondary science teacher. Named teacher of the month in January 2001 for guiding technology students in the construction of a school website. Founded a mentorship program in collaboration with undergraduates as well as Professor Richard Henry, chair of the physics department at The Johns Hopkins University. Led a team of students to a second place finish in a field of twenty-seven city and county schools at a local robotics competition. Crafted a lesson plan purchased by the American Association for the Advancement of Science's Project 2061 for use in their literature and workshops.

Volunteer Experience:

- Teach for America recruitment of math and science majors, 2002 to present. Sent on four recruitment visits to Carleton College. Featured in the current brochure for prospective math and science corps members.
- Tutoring Project at the Lansing Juvenile Corrections Facility, 2004 to 2006. Co-director of this physics outreach program. Co-recipient of a 2005 Robinson-Appel Humanitarian Award that provided \$1500 in funding for our science club.