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EDUCATION AND EMPLOYMENT

2008 - Assistant Professor, Department of Physics and Astronomy, Northwestern University
2004-8 Kavli Institute for Cosmological Physics Postdoctoral Fellow, University of Chicago
2005 Ph.D. Physics, Harvard University
1995 B.S. Physics with Honors, Stanford University

AWARDS AND HONORS

2009 Young Investigator award (YIP), Air Force Office of Scientific Research
2009 Packard Fellow, David and Lucile Packard Foundation
2009 CAREER Award, National Science Foundation
2008 Kavli Fellow, National Academy of Sciences
2006 Arthur H. Compton Lecturer, Enrico Fermi Institute, University of Chicago
2006 Thesis Award, Division of Atomic, Molecular Optical Physics (DAMOP), APS
2004 Kavli Institute Fellowship, University of Chicago

INVITED PRESENTATIONS

2008 Japanese-American Frontiers of Science Symposium, National Academy of Sciences, Irvine, CA
2008 Ulm University. AMO Seminar. Ulm, Germany
2008 University of Provence. AMO Seminar. Marseille, France
2008 University of California, Santa Barbara. HEP Seminar. Santa Barbara, CA
2008 University of California, Berkeley. AMO Seminar. Berkeley, CA
2008 Massachusetts Institute of Technology. Nuclear and Particle Colloquium. Boston, MA
2008 University of Michigan. CM/AMO Seminar. Ann Arbor, MI
2008 New York University. Physics Colloquium. New York, NY
2008 New York University. CCPP Seminar. New York, NY
2008 University of Chicago. James Franck Institute Seminar. Chicago, IL
2007 Stanford Linear Accelerator Center. Experimental Seminar. Menlo Park, CA
2006 Argonne National Laboratory. Medium Energy Physics Seminar. Argonne, IL
2006 Yale University. Weak Interactions Seminar. New Haven, CT
2006 University of Maryland. Combined Nuclear/HEP Seminar. College Park, MD
2006 Northwestern University. Physics Colloquium. Evanston, IL
2006 Division of Nuclear Physics. Dark Matter Mini-Symposium. Nashville, TN
2006 Arthur H. Compton Lecturer. Enrico Fermi Institute. University of Chicago, IL
<http://kicp.uchicago.edu/~odom/compton>
2006 6th International Workshop on The Identification of Dark Matter. Rhodes, Greece
2006 APS Division of Atomic Molecular Physics, Thesis Prize presentation. Knoxville, TN

- 2005 SNOLAB 2005 Workshop. Lively, Canada
- 2005 Northwestern University. HEP seminar. Evanston, IL
- 2004 University of Chicago. Kavli Institute seminar. Chicago, IL
- 2004 Argonne National Laboratory. AMO seminar. Argonne, IL
- 2004 Third Meeting on CPT and Lorentz Symmetry. Bloomington, IN
- 2003 University of Chicago. HEP seminar. Chicago, IL
- 2002 Fermi National Accelerator Laboratory. Special seminar. Batavia, IL
- 1999 Smithsonian Institute for Astrophysics. AMO seminar. Cambridge, MA

CONTRIBUTED PRESENTATIONS

- 2007 IEEE Nuclear Science Symposium. Honolulu, HI
- 2007 Topics in Underground and Particle Physics (TAUP). Sendai, Japan
- 2006 Neutrino 2006. Santa Fe, NM
- 2005 IEEE Nuclear Science Symposium. Fajardo, Puerto Rico
- 2005 Topics in Underground and Particle Physics (TAUP). Zaragoza, Spain

TEACHING

- 2008 Atom Trapping and Applications

PUBLICATIONS

1. "[Improved Spin-Dependent WIMP Limits from a Bubble Chamber](#)," E. Behnke, J.I. Collar, P.S. Cooper, K. Crum, M. Crisler, M. Hu, I. Levine, D. Nakazawa, H. Nguyen, B. Odom, E. Ramberg, J. Rasmussen, N. Riley, A. Sonnenschein, M. Szydagis, and R. Tschirhart. *Science* 319, 933 (2008)
2. "[WIMP identification through a combined measurement of axial and scalar couplings](#)," G. Bertone, D.G. Cerdeno, J.I. Collar, and B. Odom. *Phys. Rev. Lett.* 99, 151301 (2007)
3. "Development of Bubble Chambers With Enhanced Stability and Sensitivity to Low-Energy Nuclear Recoils," W.J. Bolte, J.I. Collar, M. Crisler, J. Hall, D. Holmgren, D. Nakazawa, B. Odom, K. O'Sullivan, R. Plunkett, E. Ramberg, A. Raskin, A. Sonnenschein, and J.D. Vieira. *Nucl. Instrum. Meth. A* 577, 569 (2007)
4. "[New Measurement of the Electron Magnetic Moment Using a One-Electron Quantum Cyclotron](#)," B. Odom, D. Hanneke, B. D'Urso, and G. Gabrielse. *Phys. Rev. Lett.* 97, 030801 (2006)
5. "[New Determination of the Fine Structure Constant from the Electron \$g\$ Value and QED](#)," G. Gabrielse, D. Hanneke, T. Kinoshita, M. Nio, and B. Odom. *Phys. Rev. Lett.* 97 030802 (2006)
6. "A Bubble Chamber for Dark Matter Detection (the COUPP Project Status)," W.J. Bolte, J.I. Collar, M. Crisler, J. Hall, J. Krider, K. Crum, D. Holmgren, C.M. Lei, D. Nakazawa, H. Nguyen, B. Odom, K. O'Sullivan, R. Plunkett, E. Ramberg, A. Raskin, J. Rasmussen, R. Schmit, A. Sonnenschein, M. Szydagis, and J.D. Vieira. *Journal of Physics: Conference Series* 39 126 (2006)
7. "[Single-Particle Self-excited Oscillator](#)," B. D'Urso, R. Van Handel, B. Odom, and G. Gabrielse. *Phys. Rev. Lett.* 94, 113002 (2005)

8. "[Fully Quantum Measurement of the Electron Magnetic Moment](#)," B. Odom. Thesis supervised by Gerald Gabrielse, Harvard University (2004).
9. "COUPP: A Heavy-Liquid Bubble Chamber for WIMP Detection," J. Bolte, J.I. Collar, M. Crisler, D. Holmgren, D. Nakazawa, B. Odom, K. O'Sullivan, R. Plunkett, E. Ramberg, A. Raskin, A. Sonnenschein, J.D. Vieira. *Proceedings from IDM2004*, Edinburgh, Scotland (2004)
10. "[Feedback Cooling of a One-Electron Oscillator](#)," B. D'Urso, B. Odom, and G. Gabrielse. *Phys. Rev. Lett.* 90, 043001 (2003)
11. "One-Electron Cyclotron (and Implications for Cold Antihydrogen)," G. Gabrielse, S. Peil, B. Odom, and B. D'Urso. In *Atomic Physics 17*, Vol. 551, edited by E. Arimondo, P. DeNatale, and M. Inguscio. American Institute of Physics, Melville, New York, pp. 108-120 (2001)
12. "QND Observation of Quantum Jumps between Fock States: a One-Electron Cyclotron Oscillator at 70 mK to 4.2 K," G. Gabrielse, S. Peil, B. Odom, and B. D'Urso. *Proceedings from Quantum Electronics and Laser Science Conference*, Baltimore, MD, USA (1999)
13. "Spectroscopy of Buffer-Gas Cooled Vanadium Monoxide in a Magnetic Trapping Field," J.D. Weinstein, R. deCarvalho, K. Amar, A. Boca, B.C. Odom, B. Friedrich, J.M. Doyle. *J. Chem. Phys.* 109, 2656 (1998)
14. "Quantum Interference in Electron Collision," R. Liu, B. Odom, Y. Yamamoto, and S. Tarucha. *Nature* 391, 6664 (1998)