

Brooks D. Thomas

Department of Physics
University of Hawaii
2025 Correa Rd., Honolulu, HI 96822
Office: (808) 956-2969
Cell: (520) 904-3527
Email: thomasbd@phys.hawaii.edu
Birthdate: March 19, 1978
U.S. Citizen

Positions Held

- Postdoctoral Fellow, Department of Physics, University of Hawaii, August 2010 - present.
- Postdoctoral Fellow, Department of Physics, University of Arizona, August 2007 - August 2010.
- Graduate Research Assistant, Department of Physics, University of Michigan, September 2002 - August 2007.

Education

- Ph.D., Physics, University of Michigan, Ann Arbor, Michigan, August 2007
Advisor: James D. Wells
Thesis Title: Theory and Phenomenology of Dirac Leptogenesis.
- M.S., Physics, University of Michigan, Ann Arbor, Michigan, August 2005.
- B.A. *cum laude*, Macalester College, St. Paul, Minnesota, June 2000.
Triple major in Physics, Chemistry, and Classics.

Honors and Awards

- Co-author of a research article (#?? on my Publication List) selected to be featured on the American Physical Society's website *Physics: Spotlighting Exceptional Research*.
- Regents' Fellowship, University of Michigan, 2002-2004.

Teaching Experience

- Instructor, Akamai Internship Short Course, Spring 2011 and Spring 2012.
- Guest Lecturer, Department of Physics, University of Arizona:
Physics 141, Introductory Mechanics (undergraduate), Spring 2008.
- Teaching Assistant, Department of Physics, University of Michigan:
Physics 127, Mechanics and Sound Lab (undergraduate), 2004-2005.
Physics 128, Electricity and Light Lab (undergraduate), 2005.
Physics 241, Elementary Laboratory II (undergraduate), 2006.
- Teaching Assistant, Department of Chemistry, Macalester College:
Chemistry 211-212, Organic Chemistry Laboratory (undergraduate), 1998-1999.

Other Teaching Experience

- Instructor, The British Council School, Rabat, Morocco, 2000-2001:
Complete responsibility for semester-long classes of 20-30 students in pre-intermediate through advanced English, business English, and English for young learners. Duties included classroom instruction, exam preparation, curriculum design, course administration, etc.

Other Activities

- Participant in the ISEE Professional Development Program for future instructors of undergraduates in science and engineering fields, Spring 2011 and Spring 2012.
- Served as an external member on the undergraduate senior thesis committee for Macalester College student Allison Kennedy, May 2011.
- Organizer for Particle/Nuclear Theory Seminar Series, Department of Physics, University of Arizona, 2007-2010.
- Assisted with Local Organization of the 2008 String Vacuum Project Kickoff Meeting, University of Arizona, April 2008.
- Co-founder and Organizer, Student Journal Group, Michigan Center for Theoretical Physics, University of Michigan, 2002-2007.

Conferences, Workshops, and Schools Attended

- Nanjing Karlstad Theory Workshop, Nanjing, China, August 2012 (invited speaker and participant, session chair).
- SUSY12: The 20th International Conference on Supersymmetry and the Unification of Fundamental Interactions, Beijing, China, August 2012 (speaker, session chair).
- CETUP* 2012 Dark Matter, Neutrino Physics, and Unification Workshop, Lead, South Dakota, July 2012 (invited speaker and participant).
- The 36th International Conference on High Energy Physics (ICHEP), Melbourne, Australia, July 2012 (speaker).
- LHC Theory Workshop, Melbourne, Australia, July 2012 (invited speaker and participant).
- 2012 Anacapa Society Meeting, Hamline University, St. Paul, Minnesota, May 2012 (speaker).
- Pheno 2012 Phenomenology Symposium (PHENO), University of Pittsburgh, May 2012 (speaker, session chair).
- String Phenomenology and Cosmology Workshop, Kavli Institute for Theoretical Physics in China (KITP-C), October - November 2011 (invited participant and speaker).
- Dark Matter and New Physics Workshop, Kavli Institute for Theoretical Physics in China (KITP-C), October - November 2011 (invited participant and speaker).
- SUSY11: The 19th International Conference on Supersymmetry and the Unification of Fundamental Interactions, Fermilab, August - September 2011 (speaker).
- String Phenomenology 2011, UW Madison, August 2011 (speaker, session chair).
- Pheno 2011 Phenomenology Symposium (PHENO), UW Madison, May 2011 (speaker, session chair).
- NPAC Implications of EWSB Workshop, UW Madison, May 2011 (speaker).
- Topologies for Early LHC Searches Workshop, SLAC, September 2010 (invited participant).
- Santa Fe 2010 Summer Workshop, Santa Fe, New Mexico, July 2010 (participant and speaker).
- Advances in Theoretical and Observational Cosmology Workshop, University of Maryland, May 2010 (participant).
- The 34th Johns Hopkins Workshop on Current Problems in Particle Theory, Johns Hopkins University, May 2010 (participant).
- MCTP Spring Symposium on Higgs Boson Physics, University of Michigan, May 2010 (participant).

- Pheno 2010 Phenomenology Symposium (PHENO), UW Madison, May 2010 (speaker, session chair).
- String Vacuum Project 2010 Spring Meeting, Kavli Institute for Theoretical Physics (KITP), U.C. Santa Barbara, California, May 2010 (invited speaker, session chair).
- Fermilab Muon Collider Physics Workshop 2009, Fermilab, November 2009 (invited speaker).
- Aspen Summer Program: Workshop on Physics Beyond the Standard Model, Aspen Center for Physics, August-September 2009 (participant).
- SUSY09: The 17th International Conference on Supersymmetry and the Unification of Fundamental Interactions, Northeastern University, June 2009 (speaker, session chair).
- BSM-LHC Workshop, Northeastern University, June 2009 (participant).
- Argonne-IIT Workshop on Collider Physics, Argonne National Labs and The Illinois Institute of Technology, May 2009 (invited speaker).
- Pheno 2009 Phenomenology Symposium (PHENO), UW Madison, May 2009 (speaker, session chair).
- LHC and Dark Matter Workshop 2009, University of Michigan, January 2009 (speaker).
- Division of Particles and Fields Meeting of the Mexican Physical Society, San Carlos, Sonora, Mexico, October 2008 (international speaker).
- LHC Physics Workshop, Kavli Institute for Theoretical Physics in China (KITP-C), September 2008 (invited participant and speaker).
- Physics of the Large Hadron Collider Workshop, Kavli Institute for Theoretical Physics (KITP), U.C. Santa Barbara, California, May 2008 (invited participant and session chair).
- Pheno 2008 Phenomenology Symposium (PHENO), UW Madison, May 2008 (speaker).
- 2008 String Vacuum Project Kickoff Meeting, University of Arizona, April 2008 (member of local organizing committee, speaker, session chair).
- West Coast LHC Meeting, Stanford Linear Accelerator Center (SLAC), January 2008 (participant).
- LHC New Physics Signatures Workshop, University of Michigan, January 2008 (speaker).
- Pheno 2007 Phenomenology Symposium (PHENO), UW Madison, May 2007 (speaker).
- Pheno 2006 Phenomenology Symposium (PHENO), UW Madison, May 2006 (speaker).
- LHC Inverse Workshop, University of Michigan, May 2006 (participant, local coordinator).
- Pheno 2005 Phenomenology Symposium (PHENO), UW Madison, April 2005 (participant).
- MCTP Spring Symposium: The Top Quark, University of Michigan, May 2005 (participant).

- String Phenomenology 2004 International Conference , University of Michigan, August 2004 (participant).

Research Seminars and Presentations

- *Dynamical Dark Matter: A New Framework for Dark-Matter Physics*, presented at the Nanjing Karlstad Theory Workshop, August 2012.
- *Dynamical Dark Matter: A New Framework for Dark-Matter Physics*, presented at Shanghai Jiaotong University, August 2012.
- *Dynamical Dark Matter: Discovery Potential at the LHC and Direct-Detection Experiments*, presented at SUSY 2012, August 2012.
- *Dynamical Dark Matter: An Explicit Model and Direct-Detection Prospects*, presented at CETUP* 2012, July 2012.
- *Dynamical Dark Matter: Collider Signatures and Direct Detection*, presented at ICHEP 2012, July 2012.
- *Dynamical Dark Matter: Collider Signatures and Direct Detection*, presented at the Melbourne LHC Theory Workshop, July 2012.
- *Dynamical Dark Matter: Theoretical Overview*, presented at PHENO 2012, May 2012.
- *Dynamical Dark Matter: An Explicit Model from Extra Dimensions*, presented at PHENO 2012, May 2012.
- *Dynamical Dark Matter: A Concrete Example*, presented at the KITPC Dark Matter and New Physics Workshop, October 2011.
- *Physics Enters the Dark Age*, colloquium presented at Chaminade University, September 2011.
- *Dynamical Dark Matter: A Concrete Example*, presented at SUSY 2011, August 2011.
- *Dynamical Dark Matter: A Concrete Example*, presented at String Phenomenology 2011, August 2011.
- *Dynamical Dark Matter: A New Framework for Dark-Matter Physics*, presented at PHENO 2011, May 2011.
- *Dynamical Dark Matter: A Concrete Example*, presented at the NPAC Implications of EWSB Workshop, May 2011.
- *Physics Enters the Dark Age*, colloquium presented at Macalester College, April 2011.
- *Dark Towers of Invisible Axions*, presented at the joint UC Irvine/University of Hawaii High-Energy Theory Journal Group, February 2011.
- *Semper FI? Supercurrents, R-symmetries and the Status of Fayet-Iliopoulos Terms in Supergravity*, presented at the University of Hawaii, November 2010.
- *Searching for a Scalar WIMP at the LHC*, presented at the University of Hawaii, September 2010.

- *Scalar WIMP Dark Matter at the LHC*, presented at the Santa Fe 2010 Summer Workshop, July 2010.
- *String Cosmology, Z' Physics, and Large Numbers of Vacua: Explicit Models of the String-Theory Landscape*, presented at the String Vacuum Project 2010 Spring Meeting, May 2010.
- *Semper FI?: Supercurrents, R-symmetries, and the Status of Fayet-Iliopoulos Terms in Supergravity*, presented at TAMU, April 2010.
- *Semper FI?: Supercurrents, R-symmetries, and the Status of Fayet-Iliopoulos Terms in Supergravity*, presented at Fermilab, January 2010.
- *Identifying the Inert Doublet: A Multi-Signature Strategy for a Multi-Purpose Model*, presented at the University of Chicago, January 2010.
- *Identifying the Inert Doublet: A Multi-Signature Strategy for a Multi-Purpose Model*, presented at the University of Wisconsin, December 2009.
- *Leptophilic Higgs Phenomenology at both Hadron and Muon Colliders*, presented at the Fermilab Muon Collider Physics Workshop 2009, November 2009.
- *Calculable Metastable SUSY-Breaking: a Nest at Tree Level*, presented at SUSY 2009, June 2009.
- *The Metastable Vacuum Cascade: New Nontrivial Vacuum Structures in Supersymmetric Field Theories*, presented at Argonne National Labs, May 2009.
- *Leptophobic Higgs Signatures at the LHC*, presented at Argonne-IIT Workshop on Collider Physics, May 2009.
- $t\bar{t}h$ with $h \rightarrow \mu^+\mu^-$, presented at PHENO 2009, May 2009.
- *The Metastable Vacuum Cascade: New Nontrivial Vacuum Structures in Supersymmetric Field Theories*, presented at The University of Michigan, January 2009.
- *Identifying the Inert Doublet: A Multi-Signature Strategy for a Multi-Purpose Model*, presented at MCTP LHC and Dark Matter Workshop 2009, January 2009.
- *The Metastable Vacuum Cascade: New Nontrivial Vacuum Structures in Supersymmetric Field Theories*, presented at the DPF Meeting of the Mexican Physical Society, October 2008.
- *Metastability is $U(1)$ biquitous: A Study of Metastable Vacua in the String-Theory Landscape*, presented at the String Vacuum Project 2008 Kickoff Meeting, April 2008.
- *Phenomenology of a Lepton-Specific Higgs*, presented at PHENO 2008, April 2008.
- *Dualities in Supersymmetric Non-Abelian Gauge Theories*, presented at the University of Arizona High-Energy Theory Journal Group, March 2008.
- *Dirac Leptogenesis, Dark Matter, and Flavor Physics* presented at the University of Maryland, February 2008

- *Nonstandard Signature Possibilities in Two-Higgs-Doublet Models*, presented at the MCTP LHC New Physics Signatures Workshop, January 2008.
- *Unparticle Sectors, Collider Physics, and Cosmology*, presented at University of Arizona High-Energy Theory Journal Group, November 2007.
- *Dark Matter from Supersymmetric Dirac Leptogenesis*, presented at The University of Arizona, October 2007.
- *Consequences of Suppressed Higgs Decays to Photons at the LHC*, presented at PHENO 2007, May 2007.
- *Technicolor, Compositeness, and Higgs Physics*, presented at MCTP Journal Group, November 2006.
- *Dirac Leptogenesis and Neutrino Phenomenology*, presented at PHENO 2006, May 2006.
- *Gauge-Mediated Supersymmetry Breaking: Theory and Phenomenology*, presented at MCTP Journal Group, January 2006.
- *Sphaleron Interactions and Leptogenesis*, presented at MCTP Journal Group, January 2005.