

Brooks D. Thomas

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Positions Held

- Associate Professor, Department of Physics, Lafayette College, Jul. 2023 - present.
- Assistant Professor, Department of Physics, Lafayette College, Jul. 2016 - Jul. 2023.
- Visiting Assistant Professor, Department of Physics, Colorado College, Aug. 2015 - Jul. 2016.
- Visiting Assistant Professor, Department of Physics, Reed College, Aug. 2014 - Aug. 2015.
- Visiting Lecturer, Department of Physics, Colorado College, Oct. - Nov. 2013, one “block” (see below).
- Postdoctoral Fellow, Department of Physics, Carleton University, Aug. 2013 - Aug. 2014.
- Postdoctoral Fellow, Department of Physics, University of Hawaii, Aug. 2010 - Aug. 2013.
- Postdoctoral Fellow, Department of Physics, University of Arizona, Aug. 2007 - Aug. 2010.
- Graduate Research Assistant, Department of Physics, University of Michigan, Sept. 2002 - Aug. 2007.

Education

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

Major Grants

- Principal Investigator on a three-year, \$135,000 grant (2014104) from the National Science Foundation in support of the project “RUI: New Directions in Dark Matter and Cosmology,” Aug. 2020 - Aug. 2023.
- Principal Investigator on a three-year, \$120,000 grant (1720430) from the National Science Foundation in support of the project “RUI: Implications of Non-Minimal Dark Sectors,” Aug. 2017 - Aug. 2020.

Other Honors and Awards

- Marquis Distinguished Teaching Award, May 2022.
- KITP Scholar Award conferred by the Kavli Institute for Theoretical Physics (KITP), which provides funding support for up to six weeks of travel to the KITP over a three-year period, 2019 - 2021.
- Featured in an article entitled “Does Dark Matter Ever Die?” on the PBS Nova Next website, May 2018.
- Internal grant from Colorado College to fund the development of the Teaching Activities for Physics Inclusion Resource (TAPIR) project to promote diversity in physics, 2016.
- Co-author of a research article (#38 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 at Lafayette

- Courses Taught:
 - Physics 111-L, General Physics — Mechanics and Thermodynamics Laboratory, Fall 2017 and Fall 2022: Algebra-based lab course on Newtonian mechanics and basic thermodynamics for life-science majors.
 - Physics 130, Relativity, Spacetime, and Contemporary Physics, Fall 2017 and Fall 2018: Introductory course for physics majors which provides a qualitative introduction to particle physics and contemporary developments in physics, as well as a rigorous, quantitative introduction to special relativity.
 - Physics 131, Physics I: Mechanics, Spring 2017, Spring 2018, Spring 2019, and Spring 2023: Core introductory calculus-based course on Newtonian mechanics for physics and engineering majors.
 - Physics 131-L, Physics I: Mechanics Laboratory, Spring 2018 (two sections), Spring 2019 (one section), Spring 2021 (three sections), and Spring 2023 (one section): Calculus-based lab course on Newtonian mechanics for physics and engineering majors.
 - Physics 133, Physics II: Electricity, Magnetism and Waves, Fall 2016: Core introductory calculus-based course on electricity, magnetism, and optics for physics and engineering majors.
 - Physics 133-L, Physics II: Electricity, Magnetism and Waves, Fall 2018 (three sections), Fall 2020 (one section), and Fall 2020 (two sections): Calculus-based lab course on electricity, magnetism, and optics for physics and engineering majors.
 - Physics 218, Oscillatory and Wave Phenomena, Spring 2017, Spring 2018, Spring 2019, Spring 2021, Spring 2022, and Spring 2023: Core physics course for second-year physics majors on oscillations and wave phenomena, with extra material enabling it to serve a dual purpose as a mathematical-methods course.
 - Physics 351, Quantum Theory, Fall 2016, Fall 2017, Fall 2020, Fall 2021, and Fall 2022: Course on quantum mechanics for upper-level physics majors.
 - Physics 451, Applications of Quantum Theory, Spring 2022: Advanced topics course on quantum mechanics for upper-level physics majors, taught as an introduction to quantum field theory.
 - First-Year Seminar 068, Mobilizing Science, Fall 2020, Fall 2021, and Fall 2022: Discussion-based seminar course specifically for first-year students (of any intended major) on the way in which societies mobilize scientific activity in response to crisis.
- Mentoring of Research Students:
 - Excel research mentor: Anna Paulsen '24, May 2023 - present.
 - Excel research mentor: Dan Hoover '24, May 2022 - May 2023.
 - Excel research mentor: Jordan Wilhelm '24, May 2021 - August 2021.
 - Excel research mentor: Kevin Manogue '22, May 2020 - February 2021.
 - Excel research mentor: Tara Leininger '22, May 2019 - May 2022.
 - Excel research mentor: Bobby Luo '21, May 2019 - August 2020.
 - Excel research mentor: Aditi Desai '20, May - August 2018.
 - Excel research mentor: Ethan Garvey '19, May 2017 - August 2018.
 - Senior-thesis supervisor: Tara Leininger '22, September 2021 - Present.
 - External senior thesis committee member: Kevin Manogue '22 (Math), Dylan Drescher '22 (Mech. Engineering), Sage Herz '21 (Mech. Engineering), Samantha Miller-Brown '18 (Math), Andrew Eickemeyer '17 (Math).

Teaching Experience Prior to Lafayette

- Visiting Assistant Professor, Department of Physics, Colorado College:

- Physics 241, Physics for the Physical Sciences I, Fall 2015 (one section) and Spring 2016 (two sections): Core introductory calculus-based course on Newtonian mechanics and basic thermodynamics for first-year physics majors.
- Physics 242, Physics for the Physical Sciences II, Fall 2015: Core introductory calculus-based course on electricity, magnetism, and modern physics for first-year physics majors.
- Physics 251, Modern Physics, Fall 2015: Core course on modern physics for second-year physics majors. Topics included special relativity, quantum mechanics, nuclear physics, and particle physics.
- Physics 320, Symmetries in Nature, Spring 2016: Topics course for upper-level physics majors which I proposed and developed. This course will focused on symmetry principles and their applications in solving problems in physics. Topics covered include groups and representations, conservation laws, and Noether's theorem.
- Visiting Assistant Professor, Department of Physics, Reed College:
 - Physics 201, Oscillations & Waves, Fall 2014: Core physics course for second-year physics majors on oscillations and wave phenomena, with extra material enabling it to serve a dual purpose as a mathematical-methods course.
 - Physics 201-L, Introduction to Electronics, Fall 2014: Lab course on basic electronics and circuits for second-year physics majors.
 - Physics 470, Supervised Thesis Research, Fall 2014 - Spring 2015: Advisor to three undergraduate students working on different senior thesis projects in dark-matter physics. Details about specific research projects are discussed in my research statement. Thesis research at Reed spans the full academic year.
 - Physics 366, Elementary Particles, Spring 2015: Course on particle physics for upper-level physics majors. Topics included special relativity, symmetries of high-energy physics, particle interactions and decays, colliders and other experimental probes of new physics, and the recent discovery of the Higgs particle.
 - Physics 202-L, Modern Physics Lab, Spring 2015: Lab course focusing on experimental tests of the principles of modern physics (quantum mechanics, special relativity, properties of elementary particles) for second-year physics majors.
- Visiting Lecturer, Department of Physics, Colorado College:
 - Physics 142, Introductory Physics II, Fall 2013: Planned and taught a full introductory algebra-based electricity, magnetism, and modern-physics course — what would normally be delivered as a full one-semester course in a traditional teaching format, but condensed into a one-month “block.” Duties included complete responsibility for classroom instruction, exam preparation, curriculum design, course administration, *etc.*
- Instructor, Akamai Internship Short Course, Spring 2011, Spring 2012, and Spring 2013.
 - Designed and team-taught a week-long intensive course on fundamental topics in physics and astronomy at UH Maui College (2011 and 2012) and UH Hilo (2013) for a group of roughly 30 undergraduates each year. The course is a component of an NSF-funded internship program designed to prepare students at Hawaiian institutions (and especially students from underrepresented groups) for careers in science and engineering.
- 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, 2004 - 2005: Introductory mechanics lab course for undergraduate non-physics majors; conducted two sessions of 20 students each.

- Physics 128, Electricity and Light Lab, 2005: Introductory electricity and magnetism lab course for undergraduate non-physics majors; enrollment of 20 students.
- Physics 241, Elementary Laboratory II, 2006: Introductory electricity and magnetism lab course for undergraduate physics majors; enrollment of 20 students.
- Teaching Assistant, Department of Chemistry, Macalester College:
 - Chemistry 211-212, Organic Chemistry Laboratory, 1998 - 1999: Assisted, as an upper-level undergraduate, in supervising and teaching two semester-long undergraduate organic-chemistry labs of 20-30 students each.

Other Teaching Experience

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

Service to Lafayette College and to the Physics Department

- Served on the Faculty Compensation Committee at Lafayette College, September 2021 - Present.
- Served as an external member on a search committee for a tenure-track positions in the Mathematics Department, December 2020 - February 2021.
- Career-Center Liaison for the Lafayette College Physics Department, August 2020 - Present.
- Bulletin-Board Coordinator for the Lafayette College Physics Department August 2020 - Present.
- Panelist for a faculty panel discussion and question-and-answer session on grant proposals and awards hosted by the Sponsored Research Office, March 2018.
- Library Liaison for the Lafayette College Physics Department, August 2017 - August 2019.
- Served on the Information Technology and Library Advisory Committee at Lafayette College, August 2018 - May 2019.
- Served on the Faculty and Academic Planning Committee at Lafayette College August 2017 - May 2018.
- Served on a search committee for two tenure-track positions in the Physics Department, August 2017 - January 2018. The search concluded successfully in January 2018.

Service to the Particle-Physics Community while at Lafayette

- Reviewer for book proposals for CRC Press.
- Reviewer for grant proposals in particle physics the UK Research and Innovation Science and Technology Facilities Council (STFC).
- Reviewer for grant proposals in particle physics the National Science Foundation (NSF).
- Referee for manuscripts submitted to the Journal of High Energy Physics (JHEP).
- Referee for manuscripts submitted to Physical Review Letters (PRL).
- Referee for manuscripts submitted to Physical Review D.
- Referee for manuscripts submitted to Monthly Notices of the Royal Astronomical Society (MNRAS).

- Panelist for a panel discussion and question-and-answer session at the CETUP* 2016 Dark Matter, Neutrino Physics, and Unification Workshop, Lead, South Dakota entitled “Dark-Matter Research at a Primarily Undergraduate Institution,” July 2016. In this session, faculty members from different types of primarily undergraduate institution (PUI) engaged in active research in dark-matter theory discussed their career path with junior members of the particle-physics community (graduate students and postdocs).

Service to the Particle-Physics Community Prior to Lafayette

- Referee for manuscripts submitted to the American Journal of Physics (AJP).
- Co-organizer of PITT-PACC Rapid-Response Workshop: “Probing Non-Minimal Dark Sectors,” University of Pittsburgh, June 2014. PITT-PACC workshops are aimed at promoting cross-disciplinary studies of problems in particle physics, astrophysics, and cosmology.
- Referee on a scholarly article submitted to the Journal of Cosmology and Astroparticle Physics (JCAP).
- Served as an external member on the undergraduate senior thesis committee for Macalester College student Allison Kennedy, May 2011.

Other Activities

- Organizer of the Lehigh Valley Physical Sciences Teaching Workshop (LVPSTW). Developed this day-long professional-development workshop for high-school physics teachers in conjunction with the Landis Center, Summer 2020 and Summer 2021. The workshop itself has been repeatedly postponed until 2022 due to the COVID-19 pandemic. The website for the workshop, which contains a library of resources for online teaching and learning, was made available to the public in Summer 2020 and has been updated annually.
- Participant in the AAPT Workshop for New Astronomy and Physics Faculty, College Park, Maryland, November 2017. This teaching-focused workshop for junior faculty provided an overview of resources and pedagogical strategies for teaching physics and astronomy at the undergraduate level.
- Founder and co-PI (with Barbara Whitten of Colorado College) of the ongoing Teaching Activities for Physics Inclusion Resource (TAPIR) project. The TAPIR project develops and maintains an online database of resources designed to present physics concepts in non-traditional contexts in order to engage a broader undergraduate audience, and especially to students from historically underrepresented groups within the physics community. The TAPIR project was founded in 2016, with the support of an internal grant from Colorado College, and has had significant student involvement even within its first year.
- Selected to serve as Design-Team Leader in the ISEE Professional Development Program for future instructors of undergraduates in science and engineering fields, Spring 2013. Served as leader for a group of program participants in a semester-long process of designing curriculum for the Akamai Internship Short Course and served as an official mentor for two first-year graduate students (Sarah Beganskas and Ian Cunyngham) participating in the program.
- Participant in the ISEE Professional Development Program for future instructors of undergraduates in science and engineering fields, Spring 2011, Spring 2012, and Spring 2013. Participation each year included a series of workshops on teaching methodology, as well as an active teaching component.
- 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, Apr. 2008.
- Co-founder and Organizer, Student Journal Group, Michigan Center for Theoretical Physics, University of Michigan, 2002 - 2007.

Outreach

- Public presentation on dark matter presented remotely via Skype to the the Kalamazoo Astronomical Society (KAS), Kalamazoo, Michigan, June 2019.
- Public presentation on dark matter presented at the the Lehigh Valley Amateur Astronomical Society (LVAAS), Allentown, Pennsylvania, October 2017.
- Outreach talk and question-and-answer session on applications of vector calculus in physics and astronomy presented to students in vector calculus at Eden Prairie High School, Eden Prairie, Minnesota, January 2017.
- Public presentation on dark matter presented at Indian University of North America (IUNA), Crazy Horse, South Dakota, July 2016.
- Public presentation on dark matter presented at Indian University of North America (IUNA), Crazy Horse, South Dakota, June 2015.
- Regular public science question-and-answer segment on the internet-radio program “Take It With You,” Mar. 2014 - present.
- Invited speaker for a panel presentation on dark matter for the general public at the Ranger/Night-Sky Program at Badlands National Park, Interior, South Dakota, July 2013.
- Invited panelist on an outreach discussion panel on careers in science for students in the Summer University Program at the Indian University of North America (IUNA), Crazy Horse, South Dakota, July 2012.
- Served as a mentor for Mililani High-School student Viola Mocz on a particle-physics-related project which took first prize in the Hawaii State Science and Engineering Fair (HSSEF), Spring 2012.
- Invited panelist on a public discussion panel on science and science policy at Chaminade University, Honolulu, Hawaii, Sept. 2011.
- Public presentation on dark matter presented at Chaminade University, Honolulu, Hawaii, Sept. 2011.
- Outreach talk and question-and-answer session on dark matter presented to students in advanced-placement physics at Eden Prairie High School, Eden Prairie, Minnesota, May 2011.

Journal Publications

Note: In high-energy physics, author lists are always strictly alphabetical.

1. “Extending the discovery potential for inelastic-dipole dark matter with FASER,” K. R. Dienes, J. L. Feng, M. Fieg, F. Huang, S. J. Lee and B. Thomas, *Phys. Rev. D* **107**, no. 11, 115006 (2023) [arXiv:2301.05252].
2. “Primordial Black Holes Place the Universe in Stasis,” K. R. Dienes, L. Heurtier, F. Huang, D. Kim, T. M. P. Tait, and B. Thomas, [arXiv:2212.01369].
3. “Evaluating Lyman- α Constraints for General Dark-Matter Velocity Distributions: Multiple Scales and Cautionary Tales,” K. R. Dienes, F. Huang, J. Kost, B. Thomas, and H.-B. Yu, *Phys. Rev. D* **106**, no. 12, 123521 (2022) [arXiv:2112.09105].
4. “Stasis in an Expanding Universe: A Recipe for Stable Mixed-Component Cosmological Eras,” K. R. Dienes, L. Heurtier, F. Huang, D. Kim, T. M. P. Tait, and B. Thomas, *Phys. Rev. D* **105**, no. 2, 023530 (2022) [arXiv:2111.04753].
5. “Sequential Displaced Vertices: A Novel Collider Signature for Long-Lived Particles,” K. R. Dienes, D. Kim, T. Leininger, and B. Thomas, *Phys. Rev. D* **106**, no. 9, 095012 (2022) [arXiv:2108.02204].

6. “Extracting Dark-Matter Velocities from Halo Masses: A Reconstruction Conjecture,” K. R. Dienes, F. Huang, J. Kost, K. Manogue, and B. Thomas, *Phys. Rev. D* **106**, no. 8, 083506 (2022) [arXiv:2101.10337].
7. “Deciphering the Archaeological Record: Cosmological Imprints of Non-Minimal Dark Sectors,” K. R. Dienes, F. Huang, J. Kost, S. Su, and B. Thomas, *Phys. Rev. D* **101**, no. 12, 123511 (2020) [arXiv:2001.02193].
8. “Partially Composite Dynamical Dark Matter,” Y. Buyukdag, K. R. Dienes, T. Gherghetta, and B. Thomas, *Phys. Rev. D* **101**, no. 7, 075054 (2020) [arXiv:1912.10588].
9. “Non-Minimal Dark Sectors: Mediator-Induced Decay Chains and Multi-Jet Collider Signatures,” K. R. Dienes, D. Kim, H. Song, S. Su, B. Thomas, and D. Yaylali, *Phys. Rev. D* **101**, no. 7, 075024 (2020) [arXiv:1910.01129].
10. “Constraining Dark-Matter Ensembles with Supernova Data,” A. Desai, K. R. Dienes, and B. Thomas, *Phys. Rev. D* **101**, no. 3, 035031 (2020) [arXiv:1909.07981].
11. “Enlarging the Space of Viable Inflation Models: A Slingshot Mechanism,” K. R. Dienes, J. Kost, and B. Thomas, *Phys. Rev. D* **100**, no. 8, 083516 (2019) [arXiv:1907.10074].
12. “Cosmological Constraints on Unstable Particles: Numerical Bounds and Analytic Approximations,” K. R. Dienes, J. Kumar, P. Stengel, and B. Thomas, *Phys. Rev. D* **99**, no. 4, 043513 (2019) [arXiv:1810.10587].
13. “Dynamical Dark Matter, MATHUSLA, and the Lifetime Frontier,” D. Curtin, K. R. Dienes, and B. Thomas, *Phys. Rev. D* **98**, no. 11, 115005 (2018) [arXiv:1809.11021].
14. “Dynamical Dark Matter from Thermal Freeze-Out,” K. R. Dienes, J. Fennick, J. Kumar and B. Thomas, *Phys. Rev. D* **97**, no. 6, 063522 (2018) [arXiv:1712.09919].
15. “Off-diagonal dark-matter phenomenology: Exploring Enhanced Complementarity Relations in Non-Minimal Dark Sectors,” K. R. Dienes, J. Kumar, B. Thomas, and D. Yaylali, *Phys. Rev. D* **96**, no. 11, 115009 (2017) [arXiv:1708.09698].
16. “Kaluza-Klein Towers in the Early Universe: Phase Transitions, Relic Abundances, and Applications to Axion Cosmology,” K. R. Dienes, J. Kost and B. Thomas, *Phys. Rev. D* **95**, no. 12, 123539 (2017) [arXiv:1612.08950].
17. “Boxes, Boosts, and Energy Duality: Understanding the Galactic-Center Gamma-Ray Excess through Dynamical Dark Matter,” K. K. Boddy, K. R. Dienes, D. Kim, J. Kumar, J. C. Park and B. Thomas, *Phys. Rev. D* **95**, no. 5, 055024 (2017) [arXiv:1609.09104].
18. “Dynamical Dark Matter from Strongly-Coupled Dark Sectors,” K. R. Dienes, F. Huang, S. Su and B. Thomas, *Phys. Rev. D* **95**, no. 4, 043526 (2017) [arXiv:1610.04112].
19. “Lines and Boxes: Unmasking Dynamical Dark Matter through Correlations in the MeV Gamma-Ray Spectrum,” K. K. Boddy, K. R. Dienes, D. Kim, J. Kumar, J. C. Park and B. Thomas, *Phys. Rev. D* **94**, no. 9, 095027 (2016) [arXiv:1606.07440].
20. “Randomness in the Dark Sector: Emergent Mass Spectra and Dynamical Dark Matter Ensembles,” K. R. Dienes, J. Fennick, J. Kumar and B. Thomas, *Phys. Rev. D* **93**, no. 8, 083506 (2016) [arXiv:1601.05094].
21. “A Tale of Two Timescales: Mixing, Mass Generation, and Phase Transitions in the Early Universe,” K. R. Dienes, J. Kost and B. Thomas, *Phys. Rev. D* **93**, no. 4, 043540 (2016) [arXiv:1509.00470].
22. “Strategies for Probing Non-Minimal Dark Sectors at Colliders: The Interplay Between Cuts and Kinematic Distributions,” K. R. Dienes, S. Su and B. Thomas, *Phys. Rev. D* **91**, no. 5, 054002 (2015) [arXiv:1407.2606].
23. “Dark-Matter Decay as a Complementary Probe of Multicomponent Dark Sectors,” K. R. Dienes, J. Kumar, B. Thomas and D. Yaylali, *Phys. Rev. Lett.* **114**, no. 5, 051301 (2015) [arXiv:1406.4868].

24. “Overcoming Velocity Suppression in Dark-Matter Direct-Detection Experiments,” K. R. Dienes, J. Kumar, B. Thomas, and D. Yaylali, *Phys. Rev. D* **90**, 015012 (2014) [arXiv:1312.7772].
25. “Dynamical Dark Matter and the Positron Excess in Light of AMS Results,” K. R. Dienes, J. Kumar, and B. Thomas, *Phys. Rev. D* **88**, 103509 (2013) [arXiv:1306.2959].
26. “Direct Detection of Dynamical Dark Matter,” K. R. Dienes, J. Kumar, and B. Thomas, *Phys. Rev. D* **86**, 055016 (2012) [arXiv:1208.0336].
27. “Distinguishing Dynamical Dark Matter at the LHC,” K. R. Dienes, S. Su, and B. Thomas, *Phys. Rev. D* **86**, 054008 (2012) [arXiv:1204.4183].
28. “Phenomenological Constraints on Axion Models of Dynamical Dark Matter,” K. R. Dienes and B. Thomas, *Phys. Rev. D* **86**, 055013 (2012) [arXiv:1203.1923].
29. “Large Jet Multiplicities and New Physics at the LHC,” J. Bramante, J. Kumar, and B. Thomas, *Phys. Rev. D* **86**, 015014 (2012) [arXiv:1109.6014].
30. “Higher Representations and Multi-Jet Resonances at the LHC,” J. Kumar, A. Rajaraman, and B. Thomas, *Phys. Rev. D* **84**, 115005 (2011) [arXiv:1108.3333].
31. “Dynamical Dark Matter: II. An Explicit Model,” K. R. Dienes and B. Thomas, *Phys. Rev. D* **85**, 083524 (2012) [arXiv:1107.0721].
32. “Dynamical Dark Matter: I. Theoretical Overview,” K. R. Dienes and B. Thomas, *Phys. Rev. D* **85**, 083523 (2012) [arXiv:1106.4546].
33. “Isospectral But Physically Distinct: Modular Symmetries and their Implications for Carbon Nanotori,” K. R. Dienes and B. Thomas, *Phys. Rev. B* **84**, 085444 (2011) [arXiv:1005.4413].
34. “Trilepton Signals in the Inert Doublet Model,” E. Dolle, X. Miao, S. Su, and B. Thomas, *Phys. Rev. D* **82**, 035009 (2010) [arXiv:1005.0090].
35. “On the Inconsistency of Fayet-Iliopoulos Terms in Supergravity Theories,” K. R. Dienes and B. Thomas, *Phys. Rev. D* **81**, 065023 (2010) [arXiv:0911.0677].
36. “Dilepton Signals in the Inert Doublet Model,” E. Dolle, X. Miao, S. Su, and B. Thomas, *Phys. Rev. D* **81**, 035003 (2010) [arXiv:0909.3094].
37. “The LHC Discovery Potential of a Leptophilic Higgs Boson,” S. Su and B. Thomas, *Phys. Rev. D* **79**, 095014 (2009) [arXiv:0903.0667].
38. “Cascades and Collapses, Great Walls and Forbidden Cities: Infinite Towers of Metastable Vacua in Supersymmetric Field Theories,” K. R. Dienes and B. Thomas, *Phys. Rev. D* **79**, 045001 (2009) [arXiv:0811.3335] (featured on the American Physical Society’s website *Physics: Spotlighting Exceptional Research*, <http://physics.aps.org>, Feb. 2009).
39. “Building a Nest at Tree Level: Classical Metastability and Non-Trivial Vacuum Structure in Supersymmetric Field Theories,” K. R. Dienes and B. Thomas, *Phys. Rev. D* **78**, 106011 (2008) [arXiv:0806.3364].
40. “ $h \rightarrow \mu\mu$ via $t\bar{t}h$ Production at the LHC,” S. Su and B. Thomas, *Phys. Lett. B* **677**, 296 (2009) [arXiv:0812.1798].
41. “Model-Independent Description and Large Hadron Collider Implications of Suppressed Two-Photon Decay of a Light Higgs Boson,” D. Phalen, B. Thomas and J. D. Wells, *Phys. Rev. D* **75**, 117702 (2007) [hep-ph/0612219].
42. “Lepton Flavor Violation and Supersymmetric Dirac Leptogenesis,” B. Thomas and M. Toharia, *Phys. Rev. D* **75**, 013013 (2007) [hep-ph/0607285].
43. “Phenomenology of Dirac Leptogenesis in Split Supersymmetry,” B. Thomas and M. Toharia, *Phys. Rev. D* **73**, 063512 (2006) [hep-ph/0511206].

44. “Requirements to Detect the Monoenergetic Photon Signature of Thermal Cold Dark Matter in PeV-Scale Split Supersymmetry,” B. Thomas, *Phys. Rev. D* **72**, 023519 (2005) [hep-ph/0503248].

Conference Proceedings

1. “Dynamics of Kaluza-Klein Towers in the Early Universe,” K. R. Dienes, J. Kost, and B. Thomas, *PoS ICHEP* **2018**, 140 (2019).
2. K. R. Dienes, F. Huang, S. Su, and B. Thomas, “Dark Hadrons as Dynamical Dark Matter,” *PoS Confinement* **2018**, 008 (2018).
3. “Regge Trajectories and Hagedorn Behavior: Hadronic Realizations of Dynamical Dark Matter,” K. R. Dienes, F. Huang, S. Su and B. Thomas, *AIP Conf. Proc.* **1900**, no. 1, 040003 (2017).
4. “Beyond the bump-hunt: A Game Plan for Discovering Dynamical Dark Matter at the LHC,” K. R. Dienes, S. Su and B. Thomas, *AIP Conf. Proc.* **1743**, 020013 (2016).
5. “A New Approach to the Cosmological Moduli Problem,” K. R. Dienes, J. Kost and B. Thomas, *AIP Conf. Proc.* **1743**, 020003 (2016).
6. “The Positron Excess as a Smoking Gun for Dynamical Dark Matter?,” K. R. Dienes, J. Kumar and B. Thomas, *AIP Conf. Proc.* **1604**, 22 (2014).
7. “Phenomenology of Dynamical Dark Matter,” K. R. Dienes and B. Thomas, *Proceedings of 36th International Conference on High Energy Physics (ICHEP2012)*, *PoS ICHEP* **2012**, 460 (2013).
8. “Dynamical Dark Matter: Introduction, Equation of State, and Cosmological Implications,” K. R. Dienes and B. Thomas, *Proceedings of 36th International Conference on High Energy Physics (ICHEP2012)*, *PoS ICHEP* **2012**, 452 (2013).
9. “Dynamical Dark Matter: A New Framework for Dark-Matter Physics,” K. R. Dienes and B. Thomas, *Proceedings of the CETUP* 2012 Workshop on Dark Matter, Unification and Neutrino Physics*, *AIP Conf. Proc.* **1534**, 57 (2012).
10. “Classical Metastable Supersymmetry Breaking with D -Terms: Tree-Level Nests and Vacuum Towers,” K. R. Dienes and B. Thomas, *Proceedings of the 17th International Conference on Supersymmetry and the Unification of Fundamental Interactions*, *AIP Conf. Proc.* **1200**, 185 (2010).
11. “New Non-Trivial Vacuum Structures in Supersymmetric Field Theories,” K. R. Dienes and B. Thomas, *Proceedings of the XIII Mexican School of Particles and Fields*, *AIP Conf. Proc.* **1116**, 391 (2009) [arXiv:0812.3423].

Community White Papers

1. “Towards a Muon Collider,” C. Accettura *et al.*, [arXiv:2303.08533].
2. “Report of the Topical Group on Physics Beyond the Standard Model at Energy Frontier for Snowmass 2021,” T. Bose *et al.*, [arXiv:2209.13128].
3. “Report of the Topical Group on Cosmic Probes of Fundamental Physics for Snowmass 2021,” R. X. Adhikari *et al.*, [arXiv:2209.11726].
4. “Snowmass Theory Frontier: Astrophysics and Cosmology,” D. Green *et al.*, [arXiv:2209.06854].
5. “More is Different: Non-Minimal Dark Sectors and their Implications for Particle Physics, Astrophysics, and Cosmology,” K. R. Dienes and B. Thomas, [arXiv:2203.17258].
6. “Recent Progress and Next Steps for the MATHUSLA LLP Detector,” C. Alpigiani *et al.* [arXiv:2203.08126].
7. “The physics case of a 3 TeV Muon Collider Stage,” J. De Blas *et al.* [arXiv:2203.07261].
8. “Muon Collider Physics Summary,” C. Aimè *et al.* [arXiv:2203.07256].

9. “Cosmology Intertwined: A Review of the Particle Physics, Astrophysics, and Cosmology Associated with the Cosmological Tensions and Anomalies,” E. Abdalla *et al.*, *JHEAp* **34**, 49-211 (2022) [arXiv:2203.06142].
10. “The Forward Physics Facility at the High-Luminosity LHC,” J. L. Feng *et al.*, *J. Phys. G* **50**, no. 3, 030501 (2023) [arXiv:2203.05090].
11. “An Update to the Letter of Intent for MATHUSLA: Search for Long-Lived Particles at the HL-LHC,” C. Alpigiani *et al.*, [arXiv:2009.01693].
12. “Searching for Long-Lived Particles Beyond the Standard Model at the Large Hadron Collider,” J. Alimena, J. Beacham, M. Borsato, Y. Cheng, X. Cid Vidal, G. Cottin, A. De Roeck, N. Desai, D. Curtin and J. A. Evans, *et al.* *J. Phys. G* **47**, no. 9, 090501 (2020) [arXiv:1903.04497].
13. “Long-Lived Particles at the Energy Frontier: The MATHUSLA Physics Case,” D. Curtin *et al.*, [arXiv:1806.07396].
14. “US Cosmic Visions: New Ideas in Dark Matter 2017: Community Report,” M. Battaglieri *et al.*, [arXiv:1707.04591].
15. “Working Group Report: New Particles, Forces, and Dimensions,” Y. Gershtein *et al.*, Snowmass 2013 Proceedings [arXiv:1311.0299].
16. “Simplified Models for LHC New Physics Searches,” D. Alves *et al.* [LHC New Physics Working Group Collaboration], *J. Phys. G* **39**, 105005 (2012) [arXiv:1105.2838].

Conferences, Workshops, and Schools Attended

- XXVIII International Symposium on Particles, Cosmology, and Strings (PASCOS 2023), UC Irvine, June 2023 (speaker).
- CETUP* 2023 Workshop on Dark Matter and Neutrino Physics, Lead, South Dakota, June 2023 (invited speaker and participant).
- Mitchell Conference on Collider, Dark Matter, and Neutrino Physics, Texas A&M University, May 2023 (invited speaker).
- Pheno 2023 Phenomenology Symposium (PHENO), University of Pittsburgh, May 2023 (speaker, session chair).
- Snowmass Community Summer Study Workshop, University of Washington, July 2022 (presenter).
- IX International Conference on Interconnections between Particle Physics and Cosmology (PPC2022), Washington University in St. Louis (hybrid conference, attended virtually), July 2022 (invited speaker).
- Mitchell Conference on Collider, Dark Matter, and Neutrino Physics, Texas A&M University, May 2022 (invited speaker, session chair).
- Pheno 2022 Phenomenology Symposium (PHENO), University of Pittsburgh, May 2022 (speaker, session chair).
- Snowmass Theory Frontier Conference, Kavli Institute for Theoretical Physics (KITP), UC Santa Barbara (virtual conference), Feb. 2022 (participant).
- Light Dark World Forum 2021, University of Pittsburgh (virtual conference), December 2021 (participant).
- MIAPP Novel Hidden Sectors Virtual Pre-Workshop, Munich Institute for Astro- and Particle Physics (virtual conference), August 2021 (participant).

- SUSY21: The 28th International Conference on Supersymmetry and the Unification of Fundamental Interactions, Institute of Theoretical Physics, Chinese Academy of Sciences (virtual conference), August 2021 (speaker).
- XIV International Conference on Interconnections between Particle Physics and Cosmology (PPC2021), University of Oklahoma (virtual conference), May 2021 (speaker, session chair).
- Pheno 2021 Phenomenology Symposium (PHENO), University of Pittsburgh (virtual conference), May 2021 (speaker).
- Virtual Mini Workshop: New Directions in Dark Matter, Ohio State University (virtual conference), May 2020 (speaker).
- Pheno 2020 Phenomenology Symposium (PHENO), University of Pittsburgh (virtual conference), May 2020 (speaker, session chair).
- APS Virtual April Meeting, virtual conference, Apr. 2020 (participant).
- KITP From Inflation to the Hot Big Bang Workshop, Kavli Institute for Theoretical Physics (KITP), UC Santa Barbara, Feb. 2020 (invited speaker and participant).
- KITP Inflationary Reheating Meets Particle Physics Frontier Conference, Kavli Institute for Theoretical Physics (KITP), UC Santa Barbara, California, Feb. 2020 (participant).
- Paris-Saclay AstroParticle Symposium 2019, Institut Pascal, Orsay, France, Oct. - Nov. 2019 (invited speaker and participant).
- Searching for new physics: Leaving No Stone Unturned Workshop, University of Utah, Aug. 2019 (invited speaker and participant).
- Aspen Summer Program: Progress after Impasse: New Frontiers in Dark Matter Workshop, Aspen Center for Physics, May - June 2019 (invited participant).
- SUSY19: The 27th International Conference on Supersymmetry and the Unification of Fundamental Interactions, Corpus Christi, Texas, May 2019 (speaker, session chair).
- Mitchell Workshop on Collider, Dark Matter, and Neutrino Physics, Texas A&M University, May 2019 (invited speaker and participant).
- Pheno 2019 Phenomenology Symposium (PHENO), University of Pittsburgh, May 2019 (speaker).
- Identification of Dark Matter 2018 (IDM), Brown University, July 2018 (invited speaker).
- Mitchell Workshop on Collider, Dark Matter, and Neutrino Physics, Texas A&M University, May 2018 (invited speaker and participant).
- Pheno 2018 Phenomenology Symposium (PHENO), University of Pittsburgh, May 2018 (speaker, session chair).
- Light Dark World Forum 2017, University of Pittsburgh, October 2017 (invited speaker).
- Aspen Summer Program: After Inflation Workshop, Aspen Center for Physics, May - June 2017 (invited participant).
- Olivefest: Astroparticle Physics Looking Forward Workshop, University of Minnesota, May 2017 (invited participant).
- Pheno 2017 Phenomenology Symposium (PHENO), University of Pittsburgh, May 2014 (speaker, session chair).
- U.S. Cosmic Visions: New Ideas In Dark Matter Workshop, University of Maryland, Mar. 2017 (participant).
- American Association of Physics Teachers (AAPT) Summer Meeting, Sacramento, California, July 2016 (presenter and participant).

- CETUP* 2016 Dark Matter, Neutrino Physics, and Unification Workshop, Lead, South Dakota, July 2016 (invited speaker, discussion leader, and participant).
- Mitchell Workshop on Collider and Dark Matter Physics, Texas A&M University, May 2016 (invited speaker and participant).
- Pheno 2016 Phenomenology Symposium (PHENO), University of Pittsburgh, May 2016 (speaker, session chair).
- Fermilab Dark Matter at a Future Hadron Collider Workshop, Fermilab, Dec. 2015 (invited speaker).
- IX International Conference on Interconnections between Particle Physics and Cosmology (PPC2015), Deadwood, South Dakota, July 2015 (speaker, session chair).
- CETUP* 2015 Dark Matter, Neutrino Physics, and Unification Workshop, Lead, South Dakota, June 2015 (invited speaker, discussion leader, and participant).
- Mitchell Workshop on Collider and Dark Matter Physics, Texas A&M University, May 2015 (invited speaker and participant).
- Pheno 2015 Phenomenology Symposium (PHENO), University of Pittsburgh, May 2015 (speaker, session chair).
- MCTP Hidden Dark Matter Workshop, University of Michigan, Nov. 2014 (invited speaker, session chair).
- PITT-PACC Rapid Response Workshop: Probing Non-Minimal Dark Sectors, University of Pittsburgh, June 2014 (co-organizer, speaker, and participant).
- Mitchell Workshop on Collider and Dark Matter Physics, Texas A&M University, May 2014 (invited speaker and participant).
- Pheno 2014 Phenomenology Symposium (PHENO), University of Pittsburgh, May 2014 (speaker).
- Snowmass on the Mississippi, University of Minnesota, July - Aug. 2013 (participant).
- VII International Conference on Interconnections between Particle Physics and Cosmology (PPC2013), Deadwood, South Dakota, July 2013 (speaker).
- CETUP* 2013 Dark Matter, Neutrino Physics, and Unification Workshop, Lead, South Dakota, July 2012 (invited speaker and participant).
- Beyond the Standard Model After the First Run of the LHC, Galileo Galilei Institute for Theoretical Physics (GGI), Florence, Italy, June 2013 (invited speaker and participant).
- Snowmass on the Pacific, Kavli Institute for Theoretical Physics (KITP), UC Santa Barbara, May 2013 (participant).
- Identifying and Characterizing Dark Matter via Multiple Probes, Kavli Institute for Theoretical Physics (KITP), UC Santa Barbara, May 2013 (participant).
- Hunting for Dark-Matter: Building a Cross-Disciplinary, Multi-Pronged Approach, Kavli Institute for Theoretical Physics (KITP), UC Santa Barbara, May - June 2013 (invited participant).
- Pheno 2013 Phenomenology Symposium (PHENO), University of Pittsburgh, May 2013 (speaker).
- Nanjing Karlstad Theory Workshop, Nanjing, China, Aug. 2012 (invited speaker and participant, session chair).
- SUSY12: The 20th International Conference on Supersymmetry and the Unification of Fundamental Interactions, Beijing, China, Aug. 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), Oct. - Nov. 2011 (invited participant and speaker).
- Dark Matter and New Physics Workshop, Kavli Institute for Theoretical Physics in China (KITP-C), Oct. - Nov. 2011 (invited participant and speaker).
- SUSY11: The 19th International Conference on Supersymmetry and the Unification of Fundamental Interactions, Fermilab, Aug. - Sept. 2011 (speaker).
- String Phenomenology 2011, UW Madison, Aug. 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, Sept. 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), UC Santa Barbara, May 2010 (invited speaker, session chair).
- Fermilab Muon Collider Physics Workshop 2009, Fermilab, Nov. 2009 (invited speaker).
- Aspen Summer Program: Workshop on Physics Beyond the Standard Model, Aspen Center for Physics, Aug. - Sept. 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, Jan. 2009 (speaker).
- Division of Particles and Fields Meeting of the Mexican Physical Society, San Carlos, Sonora, Mexico, Oct. 2008 (international speaker).
- LHC Physics Workshop, Kavli Institute for Theoretical Physics in China (KITP-C), Sept. 2008 (invited participant and speaker).
- Physics of the Large Hadron Collider Workshop, Kavli Institute for Theoretical Physics (KITP), UC Santa Barbara, 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, Apr. 2008 (member of local organizing committee, speaker, session chair).
- West Coast LHC Meeting, Stanford Linear Accelerator Center (SLAC), Jan. 2008 (participant).
- LHC New Physics Signatures Workshop, University of Michigan, Jan. 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, Apr. 2005 (participant).
- MCTP Spring Symposium: The Top Quark, University of Michigan, May 2005 (participant).
- String Phenomenology 2004 International Conference, University of Michigan, Aug. 2004 (participant).

Research Presentations and Seminars Delivered

- Conference talk: PASCOS 2023, Irvine, California, June 2023.
- Conference talk: CETUP* 2023 Workshop, Lead, South Dakota, June 2023.
- Conference talk: Mitchell Conference on Collider, Dark Matter, and Neutrino Physics, College Station, Texas, May 2023.
- Conference talk: PHENO 2023, Pittsburgh, Pennsylvania, May 2023.
- Colloquium: Lehigh University, Bethlehem, Pennsylvania, Oct. 2022.
- Poster presentation: Snowmass Community Summer Study Workshop, Seattle, Washington (virtual presentation), July 2022.
- Conference talk: PPC2022, St. Louis, Missouri (virtual talk), June 2022.
- Conference talk: Mitchell Conference on Collider, Dark Matter, and Neutrino Physics, College Station, Texas, May 2022.
- Conference talk: PHENO 2022, Pittsburgh, Pennsylvania, May 2022.
- Conference talk: SUSY2021, Beijing, China (virtual talk), August 2021.
- Conference talk: PPC2021, Norman, Oklahoma (virtual talk), May 2021.
- Conference talk: PHENO 2021, Pittsburgh, Pennsylvania (virtual talk), May 2021.
- Conference talk: Virtual Mini Workshop: New Directions in Dark Matter, Columbus, Ohio (virtual talk), May 2020.
- Conference talk: PHENO 2020, Pittsburgh, Pennsylvania (virtual talk), May 2020.
- Conference talk: KITP From Inflation to the Hot Big Bang Workshop, Santa Barbara, California, Feb. 2020.
- Conference talk: Paris-Saclay AstroParticle Symposium 2019, Orsay, France, Oct. 2019.
- Conference talk: Searching for new physics: Leaving No Stone Unturned Workshop, Salt Lake City, Utah, Aug. 2019.
- Conference talk: SUSY 2019, Corpus Christi, Texas, May 2019.
- Conference talk: Mitchell Workshop on Collider, Dark Matter, and Neutrino Physics, College Station, Texas, May 2019.
- Conference talk: PHENO 2019, Pittsburgh, Pennsylvania, May 2019.

- Research Seminar: Washington University, St. Louis, Missouri, November 2018.
- Research Seminar: University of California Irvine, Irvine, California, October 2018.
- Research Seminar: Penn State University, State College, Pennsylvania, September 2018.
- Conference talk: IDM 2018, Providence, Rhode Island, July 2018.
- Invited lecture: Series of invited lectures on Dynamical Dark Matter delivered at the Institute for Basic Science, Daejeon, South Korea, June 2018.
- Conference talk: Mitchell Workshop on Collider, Dark Matter, and Neutrino Physics, College Station, Texas, May 2018.
- Conference talk: PHENO 2018, Pittsburgh, Pennsylvania, May 2018.
- Conference talk: Light Dark World Forum 2017, Pittsburgh, Pennsylvania, October 2017.
- Conference talk: PHENO 2017, Pittsburgh, Pennsylvania, May 2017.
- Colloquium: Lehigh University, Bethlehem, Pennsylvania, Nov. 2016.
- Poster presentation: AAPT Summer Meeting Workshop, Sacramento, California, July 2016.
- Conference talk: CETUP* 2016 Workshop, Lead, South Dakota, July 2016.
- Conference talk: Mitchell Workshop on Collider and Dark Matter Physics, College Station, Texas, May 2016.
- Conference talk: PHENO 2016, Pittsburgh, Pennsylvania, May 2016.
- Research seminar: Lafayette College, Easton, Pennsylvania, Mar. 2016.
- Colloquium: Franklin & Marshall College, Lancaster, Pennsylvania, Mar. 2016.
- Research seminar: Skidmore College, Saratoga Springs, New York, Mar. 2016.
- Research seminar: Michigan State University, East Lansing, Michigan, Feb. 2016.
- Research seminar: Reed College, Portland, Oregon, Feb. 2016.
- Research seminar: Haverford College, Haverford, Pennsylvania, Jan. 2016.
- Colloquium: Haverford College, Haverford, Pennsylvania, Jan. 2016.
- Conference talk: Fermilab Dark Matter at a Future Hadron Collider Workshop, Dec. 2015.
- Conference talk: PPC2015, Deadwood, South Dakota, July 2015.
- Conference talk: CETUP* 2015 Workshop, Lead, South Dakota, June 2015.
- Conference talk: Mitchell Workshop on Collider and Dark Matter Physics, College Station, Texas, May 2015.
- Conference talk: PHENO 2015, Pittsburgh, Pennsylvania, May 2015.
- Research seminar: University of Oregon, Eugene, Oregon, Oct. 2014.
- Research seminar: TRIUMF, Vancouver, Canada, May 2014.
- Conference talk: Mitchell Workshop on Collider and Dark Matter Physics, College Station, Texas, May 2014.
- Conference talk: PHENO 2014, Pittsburgh, Pennsylvania, May 2014.
- Colloquium: Carleton University, Ottawa, Canada, Feb. 2014.
- Colloquium: Bowdoin College, Brunswick, Maine, Feb. 2014.
- Colloquium: Smith College, Northampton, Massachusetts, Feb. 2014.
- Colloquium: Hamilton College, Clinton, New York, Feb. 2014.

- Research seminar: Reed College, Portland, Oregon, Feb. 2014.
- Research seminar: McGill University, Montreal, Canada, Sept. 2013.
- Conference talk: PPC2013, Deadwood, South Dakota, July 2013.
- Conference talk: CETUP* 2013, Lead, South Dakota, July 2013.
- Conference talk: GGI Beyond the Standard Model After the First Run of the LHC Workshop, Florence, Italy, June 2013.
- Research seminar: Scuola Normale, Pisa, Italy, June 2013.
- Colloquium: Colorado College, Colorado Springs, Colorado, May 2013.
- Conference talk: PHENO 2013, Pittsburgh, Pennsylvania, May 2013.
- Research seminar: Carleton University, Ottawa, Ontario, May 2013.
- Research seminar: University of Hawaii, Honolulu, Hawaii, Mar. 2013.
- Research colloquium: University of Hawaii, Honolulu, Hawaii, Mar. 2013.
- Research seminar: Nanjing Karlstad Theory Workshop, Nanjing, China, Aug. 2012.
- Research seminar: Shanghai Jiaotong University, Shanghai, China, Aug. 2012.
- Conference talk: SUSY 2012, Beijing, China, Aug. 2012.
- Conference talk: CETUP* 2012, Deadwood, South Dakota, July 2012.
- Conference talk: ICHEP 2012, Melbourne, Australia, July 2012.
- Conference talk: Melbourne LHC Theory Workshop, Melbourne, Australia, July 2012.
- Two conference talks (on different topics): PHENO 2012, Pittsburgh, Pennsylvania, May 2012.
- Conference talk: KITPC Dark Matter and New Physics Workshop, Beijing, China, Oct. 2011.
- Colloquium: Chaminade University, Honolulu, Hawaii, Sept. 2011.
- Conference talk: SUSY 2011, Batavia, Illinois, Aug. 2011.
- Conference talk: String Phenomenology 2011, Madison, Wisconsin, Aug. 2011.
- Conference talk: PHENO 2011, Madison, Wisconsin, May 2011.
- Conference talk: NPAC Implications of EWSB Workshop, Madison, Wisconsin, May 2011.
- Colloquium: Macalester College, St. Paul, Minnesota, Apr. 2011.
- Research seminar: University of Hawaii, Honolulu, Hawaii, Nov. 2010.
- Research seminar: University of Hawaii, Honolulu, Hawaii, Sept. 2010.
- Research seminar: Santa Fe 2010 Summer Workshop, Santa Fe, New Mexico, July 2010.
- Conference talk: String Vacuum Project 2010 Spring Meeting, Santa Barbara, California, May 2010.
- Research seminar: Texas A&M University, College Station, Texas, Apr. 2010.
- Research seminar: Fermilab, Batavia, Illinois, Jan. 2010.
- Research seminar: University of Chicago, Chicago, Illinois, Jan. 2010.
- Research seminar: University of Wisconsin, Madison, Wisconsin, Dec. 2009.
- Conference talk: Fermilab Muon Collider Physics Workshop 2009, Nov. 2009.
- Conference talk: SUSY 2009, Boston, Massachusetts, June 2009.
- Research seminar: Argonne National Labs, Lemont, Illinois, May 2009.
- Conference talk: Argonne-IIT Workshop on Collider Physics, Lemont, Illinois, May 2009.

- Conference talk: PHENO 2009, Madison, Wisconsin, May 2009.
- Research seminar: University of Michigan, Ann Arbor, Michigan, Jan. 2009.
- Conference talk: MCTP LHC and Dark Matter Workshop 2009, Ann Arbor, Michigan, Jan. 2009.
- Conference talk: DPF Meeting of the Mexican Physical Society, San Carlos, Mexico, Oct. 2008.
- Conference talk: String Vacuum Project 2008 Kickoff Meeting, Tucson, Arizona, Apr. 2008.
- Conference talk: PHENO 2008, Madison, Wisconsin, Apr. 2008.
- Research seminar: University of Maryland, College Park, Maryland, Feb. 2008.
- Conference talk: MCTP LHC New Physics Signatures Workshop, Ann Arbor, Michigan, Jan. 2008.
- Research seminar: University of Arizona, Tucson, Arizona, Oct. 2007.
- Conference talk: PHENO 2007, Madison, Wisconsin, May 2007.
- Conference talk: PHENO 2006, Madison, Wisconsin, May 2006.