

YIMING ZHONG

590 Commonwealth Avenue, Boston, Massachusetts 02215, USA

Email: ymzhong@bu.edu, Phone: +1 (631) 880-0363

PROFESSIONAL EXPERIENCE

Postdoctoral Associate 2016–
Boston University, USA
Research on theoretical particle physics: Dark Matter, Collider phenomenology, Higgs boson physics,
Astrophysics, and Cosmology

EDUCATION

PhD Physics 2010-2016
C.N. Yang Institute for Theoretical Physics, Stony Brook University, USA
“[Searching for Dark Sectors](#)” Thesis advisor: Rouven Essig

MS Physics 2009-2010
Perimeter Institute for Theoretical Physics, Canada

BS Physics 2005-2009
Nankai University, China

PUBLICATIONS IN REFEREED JOURNALS

- L. Marsicano, M. Battaglieri, A. Celentano, R. De Vita, and Yi-Ming Zhong, “[Probing Leptophilic Dark Sectors at Electron Beam Dump Facilities](#)”, *Phys. Rev. D* 98, 115022 (2018).
- Martin Schmaltz and Yi-Ming Zhong, “[The Leptoquark Hunter’s Guide: Large coupling](#)”, *J. High Energy Phys.* 01, 132 (2019).
- Rouven Essig, Samuel McDermott, Hai-Bo Yu, and Yi-Ming Zhong, “[Constraining Dissipative Dark Matter Self-Interactions](#)”, submitted to *Phys. Rev. Lett.*, arXiv:1809.01144.
- Chien-Yi Chen, Jonathan Kozaczuk, and Yi-Ming Zhong, “[Exploring leptophilic dark matter with NA64- \$\mu\$](#) ”, *J. High Energy Phys.* 10, 154 (2018).
- Rouven Essig, Patrick Meade, Harikrishnan Ramani, and Yi-Ming Zhong, “[Higgs-Precision Constraints on Colored Naturalness](#)”, *J. High Energy Phys.* 09, 085 (2017).
- Bastian Diaz, Martin Schmaltz, and Yi-Ming Zhong, “[The leptoquark Hunter’s guide: Pair production](#)”, *J. High Energy Phys.* 10, 11 (2017).
- Chien-Yi Chen, Maxim Pospelov, and Yi-Ming Zhong, “[Muon Beam Experiments to Probe the Dark Sector](#)”, *Phys. Rev. D* 95, 115005 (2017).

- Chien-Yi Chen, Michel Lefebvre, Maxim Pospelov, and Yi-Ming Zhong, “[Diphoton Excess through Dark Mediators](#)”, *J. High Energy Phys.* 07, 063 (2016).
- Chien-Yi Chen, Qi-Shu Yan, Xiaoran Zhao, Zhijie Zhao, and Yi-Ming Zhong, “[Probing Triple-Higgs Productions via \$4b2\gamma\$ at a 100 TeV Hadron Collider](#)”, *Phys. Rev. D* 93, 013007 (2015).
- David Curtin, Rouven Essig, and Yi-Ming Zhong, “[Uncovering Light Scalars with Exotic Higgs Decays to \$b\bar{b}\mu^+\mu^-\$](#) ”, *J. High Energy Phys.* 06, 025 (2015).
- Bertrand Echenard, Rouven Essig, and Yi-Ming Zhong, “[Projections for Dark Photon Searches at Mu3e](#)”, *J. High Energy Phys.* 01, 113 (2014).
- David Curtin, Rouven Essig, Stefania Gori, Prerit Jaiswal, Andrey Katz, Tao Liu, Zhen Liu, David McKeen, Jessie Shelton, Matthew Strassler Ze’ev Surujon, Brock Tweedie, and Yi-Ming Zhong, “[Exotic Decays of the 125 GeV Higgs Boson](#)”, *Phys. Rev. D* 90, 075004 (2014).
- Rouven Essig, Jeremy Mardon, Michele Papucci, Tomer Volansky, and Yi-Ming Zhong, “[Constraining light dark matter with low-energy \$e^+e^-\$ colliders](#)”, *J. High Energy Phys.* 11, 167 (2013).

CONFERENCE PROCEEDINGS

- Roberto Contino *et al*, “[US Cosmic Visions: New Ideas in Dark Matter 2017: Community Report](#)”, arXiv:1707.04591.
- J. Alexander *et al*, “[Dark Sectors 2016 Workshop: Community Report](#)”, arXiv:1608.08632.
- Roberto Contino *et al*, “[Physics at a 100 TeV pp collider: Higgs and EW symmetry breaking studies](#)”, arXiv:1606.09408.

OTHER PUBLICATIONS

- Michelangelo Mangano *et al*, “[Future Circular Collider Conceptual Design Report, Vol. 1: Physics opportunities](#)”, Dec 2018.
- Michelangelo Mangano *et al*, “[Future Circular Collider Conceptual Design Report, Vol. 3: The Hadron Collider \(FCC-hh\)](#)”, Dec 2018.
- The CEPC Study Group, “[CEPC Conceptual Design Report, Vol. 2 – Physics & Detector](#)”, Oct 2018.
- SeaQuest Collaboration, “Letter of Intent for a Direct Search for Dark Photon and Dark Higgs Particles with the SeaQuest Spectrometer in Beam Dump Mode”, submitted to *Fermi National Accelerator Laboratory*, May 2015.

SEMINARS AND COLLOQUIA

- Johns Hopkins University, MD, USA, Nov 2018
- University of Maryland, MD, USA, Nov 2018
- Lawrence Berkeley National Laboratory, CA, USA, Oct 2018
- University of California at Davis, CA, USA, Oct 2018
- Harvard University, MA, USA, Sep 2018
- University of Massachusetts at Amherst, MA, USA, Feb 2018
- T.D. Lee Institute, Shanghai Jiaotong University, Shanghai, China, Jan 2018
- Tsinghua University, Beijing, China, Dec 2017
- Institute of High Energy Physics, Beijing, China, Dec 2017
- Massachusetts Institute of Technology, MA, USA, Mar 2017
- University of California at Riverside, CA, USA, June 2016
- SLAC National Accelerator Laboratory, CA, USA, June 2016
- Boston University, MA, USA, Apr 2016
- Perimeter Institute for Theoretical Physics, ON, Canada, Nov 2015

INVITED TALKS AT INTERNATIONAL CONFERENCES

- Implication Workshop 2018, CERN, Geneva, Switzerland, Oct 2018 (declined)
- The 2018 International Workshop on Future Linear Colliders, Arlington, TX, USA, Oct 2018 (declined)
- 10th International Workshop on The CKM Unitarity Triangle, Heidelberg, Germany, Sep 2018
- The Flavor of New Physics in Collisions, Aspen Center for Physics, CO, USA, Aug 2018
- The Small-scale Structure of Cold(?) Dark Matter, Kavli Institute for Theoretical Physics, CA, USA, May 2018
- 2nd Future Circular Collider Workshop, CERN, Geneva, Switzerland, Jan 2018
- High Energy Program 2018, Hong Kong University of Science and Technology, Hong Kong, China, Jan 2018
- U.S. Cosmic Visions: New Ideas in Dark Matter, University of Maryland, MD, USA, Mar 2017
- Belle II Theory Interface Platform Workshop, University of Pittsburgh, PA, USA, May 2016

- Dark Sector Workshop, SLAC National Accelerator Laboratory, CA, USA, Apr 2016
- LHC Higgs Cross Section Working Group 3 (WG3): Exotic Higgs Decays Kick-off Meeting, CERN, Geneva, Switzerland, Mar 2015

OTHER TALKS AT INTERNATIONAL CONFERENCES

- DESY Theory Workshop: Particle Physics Challenges, Hamburg, Germany, Sep 2018
- Beyond WIMPs: from Theory to Detection, Simons Center for Geometry and Physics, NY, USA, Mar 2017
- Brookhaven Forum 2015, Brookhaven National Laboratory, NY, USA, Aug 2015
- Phenomenology 2015 Symposium, University of Pittsburgh, PA, USA, May 2015
- American Physical Society April Meeting 2015, Baltimore, MD, USA, Apr 2015
- Action at a Distance, Perimeter Institute for Theoretical Physics, ON, Canada, June 2014
- Phenomenology 2014 Symposium, University of Pittsburgh, PA, USA, May 2014
- Dark Matter Paradigm, Princeton Center for Theoretical Science, NJ, USA, Oct 2013
- Brookhaven Forum 2013, Brookhaven National Laboratory, NY, USA, May 2013

SELECTED AWARDS AND HONORS

- 2016 Max Dresden Prize, Stony Brook University
- 2015 Rosaline and Milton Sterman Award, Stony Brook University
- 2015 PITT PACC Travel Award, University of Pittsburgh
- 2015 Sigma Xi Travel Prize, Stony Brook Chapter of Sigma Xi
- 2014 Di Tian Prize, Stony Brook University
- 2013 Peter B. Kahn Fellowship, Stony Brook University
- 2009 Perimeter Scholars International Award, Perimeter Institute for Theoretical Physics
- 2007 National Scholarship, Ministry of Education of China

PROFESSIONAL SERVICE

- Referee for Physical Review D, Journal of High Energy Physics, Nuclear Physics B, Physics Letter, and European Physical Journal C.
- Organizer for the High Energy Theory seminar of Boston University
- Organizer for the joint lunch meeting of Brown, BU, Harvard, and MIT high energy theory groups
- Member, American Physical Society