

Masahiro Morii

Harvard University, Department of Physics
17 Oxford Street, Cambridge, MA 02138

masahiro_morii@harvard.edu
(617) 495-3279

Professional Positions

2007–present Professor of Physics, Harvard University
2014–2017 Chair, Department of Physics, Harvard University
2004–2007 John L. Loeb Associate Professor of the Natural Sciences, Harvard University
2000–2004 Assistant Professor of Physics, Harvard University
1996–2000 Research Associate, SLAC
1992–1996 Research Associate, University of Tokyo

Education

1994 Ph.D. in physics, University of Tokyo
1988 M.S. in physics, Kyoto University
1986 B.S. in physics, Kyoto University

Awards

2002–2003 Alfred P. Sloan Research Fellowship

Research Experience

2006–present ATLAS Experiment at the Large Hadron Collider at CERN
2009–2011 LUX Experiment at Sanford Underground Research Facility
1996–2011 BABAR Experiment at the PEP-II e^+e^- storage ring at SLAC
1992–1996 OPAL Experiment at the LEP e^+e^- storage ring at CERN

Selected Publications

- ATLAS Collaboration, *Search for gluinos in events with an isolated lepton, jets and missing transverse momentum at $\sqrt{s} = 13$ TeV with the ATLAS detector*, Eur. Phys. J. C 76 (2016) 565.
- ATLAS Collaboration, *Search for new phenomena in final states with an energetic jet and large missing transverse momentum in pp collisions at $\sqrt{s} = 13$ TeV using the ATLAS detector*, Phys. Rev. D 94 (2016) 032005.
- ATLAS Collaboration, *Search for direct pair production of a chargino and a neutralino decaying to the 125 GeV Higgs boson in $\sqrt{s} = 8$ TeV pp collisions with the ATLAS detector*, Eur. Phys. J. C 75 (2015) 208.
- ATLAS Collaboration, *Search for direct production of charginos, neutralinos and sleptons in final states with two leptons and missing transverse momentum in pp collisions at $\sqrt{s} = 8$ TeV with the ATLAS detector*, JHEP 1405 (2014) 071.
- ATLAS Collaboration, *Search for direct slepton and gaugino production in final states with two leptons and missing transverse momentum with the ATLAS detector in pp collisions at $\sqrt{s} = 7$ TeV*, Phys. Lett. B 718 (2013) 879–901.
- ATLAS Collaboration, *Measurement of WZ production in proton-proton collisions at $\sqrt{s} = 7$ TeV with the ATLAS detector*, Eur. Phys. J. C 72 (2012) 2173.

- ATLAS Collaboration, *Measurement of the WZ production cross section and limits on anomalous triple gauge couplings in proton-proton collisions at $\sqrt{s} = 7$ TeV with the ATLAS detector*, Phys. Lett. B 709 (2012) 341–357.
- ATLAS Collaboration, *Measurement of the transverse momentum distribution of W bosons in pp collisions at $\sqrt{s} = 7$ TeV with the ATLAS detector*, Phys. Rev. D 85 (2012) 012005.
- LUX Collaboration, *First results from the LUX dark matter experiment at the Sanford Underground Research Facility*, Phys. Rev. Lett. 112 (2014) 091303.
- BABAR Collaboration, *Measurement of the $B \rightarrow \pi\ell\nu$ branching fraction and determination of $|V_{ub}|$ with tagged B mesons*, Phys. Rev. Lett. 97 (2006) 211801.

Teaching

Physical Sciences 3, <i>Electromagnetism and Waves</i>	Spring 2007 and 2008
Physics 11b, <i>Electromagnetism</i>	Spring 2005, 2006, and 2012
Physics 15b, <i>Electromagnetism</i>	Spring 2007, 2009, 2010, 2011, and Fall 2010
Physics 15c, <i>Wave Phenomena</i>	Spring 2001, 2002, 2004, and Fall 2009
Physics 95, <i>Topics in Current Research</i>	Fall 2014 and 2016
Physics 123/223, <i>Laboratory Electronics</i>	Fall 2011, 2013, and Spring 2018
Physics 145, <i>Elementary Particle Physics</i>	Spring 2012 and 2014
Physics 151, <i>Mechanics</i>	Fall 2001, 2002, and 2003
Physics 191r/247r, <i>Advanced Laboratory</i>	Fall 2000

Mentoring

Harvard graduate students advised: Kris Chaisanguanthum (Ph.D. 2008), Benjamin Smith (Ph.D. 2011), Corry Lee (Ph.D. 2011), Michael Kagan (Ph.D. 2012), Emma Tolley (Ph.D. 2016), Julia Gonski (Ph.D. expected in 2019)

Harvard postdocs supervised: Stephen Bailey (2001–2004), Eunil Won (2002–2004), Jinwei Wu (2005–2006), Corrinne Mills (2007–2013), Michal Wlasenko (2009–2011), Bart Butler (2012–2013), Valerio Ippolito (2013–2017), Stefano Zambito (2015–present), Nedaa Asbah (2018–present)

Conference Presentations

- *Beyond-the-Standard-Model Searches at the LHC*, 46th SLAC Summer Institute (SSI2018), SLAC National Accelerator Laboratory, 30 July–10 August 2018.
- *Dark Matter Searches at the LHC*, Dark Side of the Universe 2015 (DSU2015), Kyoto, 14–18 December 2015.
- *WW, WZ, and ZZ production*, SM@LHC 2013, Freiburg im Breisgau, Germany, 9–12 April 2013.
- *Semileptonic B decays*, invited talk, APS April Meeting 2006, Dallas, Texas, 22–25 April 2006.
- *Inclusive $b \rightarrow u\ell\nu$ and $b \rightarrow s\gamma$ spectra*, SLAC/INT Workshop on Flavor Physics and QCD, University of Washington, 11–14 March 2005.
- *Determination of V_{cb} and related results from BABAR*, 8th International Workshop on Meson Production, Properties and Interaction (MESON2004), Krakow, Poland, 4–8 June 2004.
- *Measurements of $\sin 2\alpha$ from the B factories*, 5th International Conference on Hyperons, Charm and Beauty Hadrons, Vancouver, Canada, 25–29 June 2002.
- *First year of BABAR/PEP-II: Measuring CP violation at an asymmetric B factory*, XXXVth Rencontres de Moriond, QCD and High-Energy Hadronic Interactions, Les Arcs, Savoie, France, 18–25 March 2000.

- *Heavy-quark electroweak measurements using leptons*, 28th International Conference on High Energy Physics, Warsaw, Poland, 25–31 July 1996.
- *New measurements of $\Gamma(Z \rightarrow b\bar{b})/\Gamma(Z \rightarrow \text{hadrons})$ from OPAL*, XXVIIIth Rencontre de Moriond, Electroweak Interactions and Unified Theories, Les Arcs, Savoie, France, 13–20 March 1993.

Colloquia

- *Experimental Searches for Dark Matter*, Dartmouth University, 25 May 2018.
- *Search for Dark Matter*, University of Tokyo, 13 February 2015.
- *LUX: A Liquid Xenon Dark Matter Detector*, Rutgers University, 24 August 2010.
- *Searching for New Physics in CP violation with BABAR*, Harvard University, 13 November 2006.
- *Cracking the Unitarity Triangle*, University of Arizona, 7 October 2005; MIT, 20 October 2005; Northeastern University, 3 November 2005; Tohoku University, 21 November 2005; Nagoya University, 22 November 2005; Boston University, 24 January 2006.
- *B physics beyond CP violation*, MIT Laboratory for Nuclear Science, 8 November 2004.

Seminars

- *LUX: a liquid xenon Dark Matter detector*, KEK, 24 December 2009; Harvard University, 14 April 2010.
- *Semileptonic B decays*, SLAC, 26 September 2006; Fermilab, 29 September 2006.
- *B physics beyond CP violation*, Harvard University, 1 November 2005; Duke University, 9 November 2005; University of Tokyo, 14 November 2005; KEK, 15 November 2005; Tsukuba University, 21 November 2005; Kyoto University, 24 November 2005; Osaka University, 25 November 2005; Carnegie Mellon University, 7 December 2005; University of Pennsylvania, 17 January 2006; Yale University, 27 February 2006; Columbia University, 29 March 2006; University of Illinois, Urbana-Champaign, 3 April 2006.
- *Semileptonic B decays at BABAR*, Brookhaven National Laboratory, 13 January 2005.
- *Cracking the Unitarity Triangle*, Indiana University, 3 October 2003.