

Curriculum Vitae  
**Toyoko J. Orimoto**

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**Education**

- Dec 2006: Ph.D., Physics, University of California, Berkeley; Thesis Title: “Study of rare B-meson decays related to the CP observable  $\sin(2\beta + \gamma)$  at the BaBar experiment”
- May 2002: M.A., Physics, University of California, Berkeley
- May 2000: B.A., Physics, University of California, Berkeley

**Employment**

- Oct 2012 - present: Assistant Professor, Northeastern University, Boston, MA
- Oct 2009 - Sep 2012: CERN Fellow, CERN, Geneva, Switzerland
- Sep 2006 - Sep 2009: Robert A. Millikan Postdoctoral Fellow, California Institute of Technology, Pasadena, CA
- May 2001 - Aug 2006: Graduate Student Researcher, University of California, Berkeley & Lawrence Berkeley National Laboratory, Berkeley, CA

**Awards & Fellowships**

- 2013-present: US Department of Energy Early Career Award
- 2009-2012: CERN COFUND Fellowship
- 2009: CMS Achievement Award for decisive leadership in ECAL prompt feedback
- 2006-2009: Robert A. Millikan Postdoctoral Fellowship in Experimental Physics
- 2000-2002 & 2005: UC Berkeley Chancellor’s Opportunity Graduate Fellowship
- 2000: National Science Foundation Graduate Fellowship (Honorable Mention)
- 1996 - 2000: UC Berkeley Chancellor’s Undergraduate Scholarship
- 1996 - 2002 & 2005: Japanese American Women Alumnae of UC Berkeley Scholarship

## Current Research Areas

- Experimental Particle Physics
- Exploring the high energy frontier with the Compact Muon Solenoid (CMS) Experiment at the CERN Large Hadron Collider (LHC)
- Discovering or constraining new beyond-the-standard-model (BSM) physics
- Utilizing the newly discovered Higgs boson as a potential portal to further discoveries
- Collaborating with theorists to develop optimal strategies for discovering new physics
- Operating the CMS electromagnetic calorimeter (ECAL) and maintaining its excellent performance
- Upgrading the CMS ECAL Barrel for the High-Luminosity LHC

## Research Leadership Roles

- **CMS Management:**
  - 2014-present: Deputy Representative to the CMS Collaboration Board
  - 2018-present: Member of CMS Diversity Office
- **CMS Physics:**
  - 2017-present: Leader of CMS Exotic Higgs search for  $h \rightarrow aa \rightarrow 4\gamma$  decays
  - 2017-present: Member of CMS SUSY Publications Committee
  - 2017: Member of US CMS Phase II Upgrade Advisor Board
  - 2012-2013: Dataset Definition Team contact for CMS Higgs Physics Group
  - 2011-2012: Contact for CMS SUSY Razor diphoton search
  - 2009-2012: Leader of CMS Exotica high-mass diphoton resonance search
  - 2010-2011: CMS Physics Dataset Working Group member
  - 2011: Photon contact for CMS Exotica Physics Analysis Group
  - 2011: Contact for CMS  $e\text{-}\gamma$  Physics Object Group  $\gamma$  misidentification measurement
  - 2010: Contact for CMS QCD Photons working group data-MC validation task
  - 2010: ECAL contact for CMS QCD Photons working group
  - 2010: Coordinator for CMS ECAL/ $e\text{-}\gamma$  supercluster commissioning
  - 2008-2009: Co-convener of the CMS QCD Photons working group
  - Editor of CMS PAS: EXO-09-009, EGM-10-001, EXO-10-019, EXO-11-037
  - Member of CMS Analysis Review Committees: CMS-EXO-12-028, CMS-EXO-12-047, CMS-SUS-16-012, CMS-EXO-16-053

- **CMS Electromagnetic Calorimeter (ECAL):**

- 2013-present: CMS ECAL Editorial Board Chair
- 2012-present: CMS ECAL Institution Board Member
- 2013-2014: CMS ECAL Documentation Coordinator
- 2012-2013: CMS ECAL Editorial Board Member
- 2009-2010: ECAL representative for CMS Physics Validation Team
- 2008-2010: Coordinator for the CMS ECAL Prompt Analysis Group
- 2006-2009: ECAL laser monitoring expert

### Professional Service

- 2018: Session convener for 2018 Conference on the Interactions of Particle and Nuclear Physics (CIPANP2018), Palm Springs, CA
- 2017-present: APS Forum for International Physics Executive Committee Member (Elected)
- 2015-present: US LHC Users Association Executive Committee Member (Elected)
- 2014: National Science Foundation proposal reviewer
- 2015: Organizer for 2015 USLUA Annual Meeting at Fermilab
- 2015: Session convener for Detector R&D session at the APS Division of Particles and Fields Meeting (DPF2015), Ann Arbor, MI
- 2014: Observer member to the US LHC Users Association Executive Committee
- 2012: Session convener for Standard Model and Higgs Physics at the 36th International Conference on High Energy Physics (ICHEP12), Melbourne, Australia
- 2012: Instructor at CMS Data Analysis School, Pisa, Italy
- 2010: Session convener at 12th Topical Seminar on Innovative Particle and Radiation Detectors (IPRD10), Siena, Italy
- 2009: Member of CMS ECAL Award Committee

### Research Advising

- Postdoctoral Researchers:
  - Andrea Massironi (2013-2017), now permanent staff at INFN Milano-Bicocca
- PhD students:
  - Rafael Teixeira De Lima (Physics 2017), "Shedding Light: Beyond the Standard Model Higgs Physics with Photons at CMS"; now postdoctoral researcher with SLAC ATLAS group

- Tanvi Wamorkar
- Abraham Tishelman-Charny
- MSc students: Martin Franke (2014, exchange student from Germany)
- Undergraduate coop students: Alexander Coda (Physics 2017), Marko Lazarevic (Physics 2019), William Benoit (Physics 2019), Kathryn Larkin (Physics 2019), Kelsey Yee (Physics 2018), Michael Plesser (Physics 2019)

## Conference Presentations, Colloquia, and Seminars

1. *Exploring the High Energy Frontier with Precision Electromagnetic Calorimetry: CMS ECAL & the Search for di-Higgs Production.*  
Colloquium presented at Florida State University Physics Department, April 2018.
2. *Results from CMS.*  
Invited talk presented at the Miami Conference, Fort Lauderdale FL, Dec 2017.
3. *High precision electromagnetic calorimetry with 40 MHz readout: the CMS crystal ECAL for the High-Luminosity LHC.*  
Parallel talk presented at the IEEE Nuclear Science Symposium and Medical Imaging Conference, Atlanta, GA, Oct 2017.
4. *Design studies for the Phase II upgrade of the CMS Barrel Electromagnetic Calorimeter.*  
Parallel talk presented at the IEEE Nuclear Science Symposium and Medical Imaging Conference, Atlanta, GA, Oct 2018.
5. *Recent Run 2 Results from the CMS Collaboration.*  
Invited talk presented at the US LHC Users Association (USLUA) Annual Meeting, Berkeley, CA, Nov 2016.
6. *Design studies for the Phase II upgrade of the CMS Barrel Electromagnetic Calorimeter.*  
Parallel talk presented at the International Conference for High Energy Physics (ICHEP), Chicago, IL, Aug 2016.
7. *Search for New Physics in the Low MET Monophoton Channel with the CMS Detector.*  
Invited seminar presented at the University of Massachusetts, Amherst, MA, Oct 2015.
8. *Search for New Physics in the Low MET Monophoton Channel with the CMS Detector.*  
Parallel talk presented at the APS Division of Particles and Fields Meeting 2015, Ann Arbor, MI, Aug 2015.
9. *Search for New Physics in the Low MET Monophoton Channel with the CMS Detector.*  
Invited seminar presented at the University of Chicago, Chicago, IL, Mar 2015.
10. *Search for New Physics in the Low MET Monophoton Channel with the CMS Detector.*  
Parallel talk presented at the Phenomenology Symposium 2015, Pittsburgh, PA, May 2015.
11. *Mono- and Di-photon Searches at the LHC.*  
Invited parallel talk presented at Astroparticle Physics 2014, Amsterdam, NL, June 2014.

12. *Search for Higgs Boson Decays to Z+gamma with the CMS Detector.*  
Seminar presented at Boston University, Boston, MA, USA, Nov 2013.
13. *Hunting for the Higgs with the CMS Detector.*  
Invited colloquium presented at Drexel University, Philadelphia, PA, USA, Mar 2013.
14. *Diphotons with the CMS Detector: Probes for Discovery at the LHC.*  
Invited seminar presented at the University of Texas, Austin, USA, Mar 2011.
15. *The Search for the Higgs in the Two Photon Decay Channel with the CMS Detector.*  
Invited colloquium presented at the University of Texas, Austin, USA, Mar 2011.
16. *Diphotons with the CMS Detector: Probes for Discovery at the LHC.*  
Invited colloquium presented at the University of Texas, Dallas, USA, Mar 2011.
17. *Photons with the CMS Detector: A Probe for Discovery at the LHC.*  
Invited seminar presented at the University of Oregon, Eugene, OR, USA, Mar 2011.
18. *The Search for the Higgs in the Diphoton Channel with the CMS Detector.*  
Invited colloquium presented at the University of Oregon, Eugene, OR, USA, Mar 2011.
19. *Photons with the CMS Detector: A Probe for Discovery at the LHC.*  
Invited seminar presented at the Massachusetts Institute of Technology, Cambridge, MA, USA, Mar 2011.
20. *Photons with the CMS Detector: A Probe for Discovery at the LHC.*  
Invited colloquium presented at Northeastern University, Boston, MA, USA, Mar 2011.
21. *Other Exotic Signatures.*  
Talk presented for the CMS Collaboration at the Implications of LHC results for TeV-scale physics: WG3 meeting, CERN, Geneva, Switzerland, Dec 2011.
22. *High Mass Resonance Searches with the CMS Experiment.*  
Talk presented for the CMS Collaboration at the Hadron Collider Physics Symposium 2011, Paris, France, Nov 2011.
23. *Extra Dimensions at the LHC: Searches with Diphotons with the CMS Detector.*  
Invited colloquium presented at University of Alabama, Tuscaloosa, AL, USA, Mar 2011.
24. *Diphotons with the CMS Detector: Early Searches with 7 TeV LHC Data.*  
Invited seminar presented at University of California, Davis, CA, USA, Mar 2011.
25. *Diphotons with the CMS Detector: Early Searches with 7 TeV LHC Data.*  
Invited seminar presented at New York University, New York, NY, USA, Mar 2011.
26. *Diphotons with the CMS Detector: Early Searches with 7 TeV LHC Data.*  
Invited seminar presented at Northwestern University, Evanston, IL, USA, Mar 2011.
27. *Status of the CMS Experiment.*  
Talk presented for the CMS Collaboration at Symmetries and Spin 2010 (SPIN-Praha-2010), Prague, Czech Republic, July 2010.

28. *Commissioning of the CMS Electromagnetic Calorimeter with First Collisions.*  
Talk presented for the CMS Collaboration at the 12th Topical Seminar on Innovative Particle and Radiation Detectors (IPRD10), Siena, Italy, June 2010.
29. *The CMS Experiment: First Collisions and Plans for Early Data.*  
Invited Research Progress Meeting seminar at Lawrence Berkeley National Laboratory, Berkeley, CA, USA, Feb 2010.
30. *The CMS Electromagnetic Calorimeter: Construction, Commissioning and Calibration.*  
Talk presented for the CMS ECAL Group at the 2009 Europhysics Conference on High Energy Physics (EPS-HEP), Krakow, Poland, July 2009.
31. *Photon Physics with the CMS Detector.*  
Invited seminar at the University of Minnesota, Minneapolis, MN, USA, Feb 2009.
32. *First beam at LHC as seen by CMS.*  
Talk presented for the CMS Collaboration at the Lake Louise Winter Institute, Lake Louise, Canada, Feb 2009.
33. *The Commissioning of the CMS Electromagnetic Calorimeter Light Monitoring System.*  
Poster presented for the CMS ECAL Group at the IEEE Nuclear Science Symposium and Medical Imaging Conference, Dresden, Germany, Oct 2008.
34. *The CMS ECAL Laser Monitoring System.*  
Poster presented for the CMS ECAL Group at the 10th ICATPP Conference on Astroparticle, Particle, Space Physics, Detectors and Medical Physics Applications, Villa Olmo, Como, Italy, Oct 2007.
35. *Nanometer Resolution Beam Position Monitors for the ILC.*  
Talk presented for the NanoBPM Collaboration at the American Physics Society Division of Particles and Fields Joint Meeting of Pacific Region Particle Physics Community, Honolulu, Hawaii, Oct 2006.
36. *New Measurements of the Angle  $\gamma$  from the Babar Experiment.*  
Invited talk presented for the Babar Collaboration at the International Workshop on Discoveries in Flavour Physics at  $e^+e^-$  Colliders, Frascati, Italy, Feb 2006.
37. *The NanoBPM Project: Nanometer resolution beam position monitors for the International Linear Collider.*  
Invited seminar at the California Institute of Technology, Pasadena, CA, USA, Jan 2006.
38. *Study of the Decay  $B^0 \rightarrow D_s^+ \rho^-$  at the Babar Detector.*  
Talk presented for the Babar Collaboration at the April Meeting of American Physics Society, Tampa, FL, April 2005.
39. *Study of the Decays  $B^0 \rightarrow D_s^{(*)+} \pi^-$ .*  
Talk presented for the Babar Collaboration at *DPF2002*, the Meeting of the Division of Particles and Fields of the American Physics Society, Williamsburg, VA, May 2002.

## Select Publications & Reports

Articles with significant contributions from the Orimoto group are listed below. For a full list of publications, please see: [http://inspirehep.net/search?ln=en&p=find+a+orimoto&of=hb&action\\_search=Search](http://inspirehep.net/search?ln=en&p=find+a+orimoto&of=hb&action_search=Search)

### Refereed Articles

- [1] V. Khachatryan *et al.* [CMS Collaboration], “Search for exotic decays of a Higgs boson into undetectable particles and one or more photons,” *Phys. Lett. B* **753**, 363 (2016) doi:10.1016/j.physletb.2015.12.017.
- [2] T. Adams *et al.*, “Beam test evaluation of electromagnetic calorimeter modules made from proton-damaged PbWO<sub>4</sub> crystals,” *JINST* **11**, no. 04, P04012 (2016). doi:10.1088/1748-0221/11/04/P04012
- [3] V. Khachatryan *et al.* [CMS Collaboration], “Measurement of the W<sup>+</sup>W<sup>-</sup> cross section in pp collisions at  $\sqrt{s} = 8$  TeV and limits on anomalous gauge couplings,” *Eur. Phys. J. C* **76**, no. 7, 401 (2016) doi:10.1140/epjc/s10052-016-4219-1 [arXiv:1507.03268 [hep-ex]].
- [4] V. Khachatryan *et al.* [CMS Collaboration], “Search for supersymmetry with photons in pp collisions at  $\sqrt{s}=8$  TeV,” *Phys. Rev. D* **92**, no. 7, 072006 (2015) [arXiv:1507.02898 [hep-ex]].
- [5] V. Khachatryan *et al.* [CMS Collaboration], “Search for exotic decays of a Higgs boson into undetectable particles and one or more photons,” *Phys. Lett. B* **753**, 363 (2016) [arXiv:1507.00359 [hep-ex]].
- [6] V. Khachatryan *et al.* [CMS Collaboration], “Search for a Higgs Boson in the Mass Range from 145 to 1000 GeV Decaying to a Pair of W or Z Bosons,” *JHEP* **1510**, 144 (2015) doi:10.1007/JHEP10(2015)144 [arXiv:1504.00936 [hep-ex]].
- [7] V. Khachatryan *et al.* [CMS Collaboration], “Performance of Photon Reconstruction and Identification with the CMS Detector in Proton-Proton Collisions at  $\sqrt{s} = 8$  TeV,” *JINST* **10**, no. 08, P08010 (2015) [arXiv:1502.02702 [physics.ins-det]].
- [8] V. Khachatryan *et al.* [CMS Collaboration], “Performance of Electron Reconstruction and Selection with the CMS Detector in Proton-Proton Collisions at  $\sqrt{s} = 8$  TeV,” *JINST* **10**, no. 06, P06005 (2015) [arXiv:1502.02701 [physics.ins-det]].
- [9] V. Khachatryan *et al.* [CMS Collaboration], “Precise determination of the mass of the Higgs boson and tests of compatibility of its couplings with the standard model predictions using proton collisions at 7 and 8 TeV,” *Eur. Phys. J. C* **75**, no. 5, 212 (2015) doi:10.1140/epjc/s10052-015-3351-7 [arXiv:1412.8662 [hep-ex]].
- [10] S. Chatrchyan *et al.* [CMS Collaboration], “Energy Calibration and Resolution of the CMS Electromagnetic Calorimeter in *pp* Collisions at  $\sqrt{s} = 7$  TeV,” *JINST* **8**, P09009 (2013) [*JINST* **8**, 9009 (2013)] [arXiv:1306.2016 [hep-ex]].
- [11] S. Chatrchyan *et al.* [CMS Collaboration], “Observation of a new boson with mass near 125 GeV in pp collisions at  $\sqrt{s} = 7$  and 8 TeV,” *JHEP* **1306**, 081 (2013) [arXiv:1303.4571 [hep-ex]].

- [12] S. Chatrchyan *et al.* [CMS Collaboration], “Search for the standard model Higgs boson decaying into two photons in  $pp$  collisions at  $\sqrt{s} = 7$  TeV,” *Phys. Lett. B* **710**, 403 (2012) [arXiv:1202.1487 [hep-ex]].
- [13] S. Chatrchyan *et al.* [CMS Collaboration], “Search for signatures of extra dimensions in the diphoton mass spectrum at the Large Hadron Collider,” *Phys. Rev. Lett.* **108**, 111801 (2012) [arXiv:1112.0688 [hep-ex]].
- [14] A. Lyapin *et al.*, “Results from a prototype chicane-based energy spectrometer for a linear collider,” *JINST* **6**, P02002 (2011) [arXiv:1011.0337 [physics.acc-ph]].
- [15] S. Chatrchyan *et al.* [CMS Collaboration], “Performance and Operation of the CMS Electromagnetic Calorimeter,” *JINST* **5**, T03010 (2010) [arXiv:0910.3423 [physics.ins-det]].
- [16] S. Abdullin *et al.* [USCMS and ECAL/HCAL Collaborations], “The CMS barrel calorimeter response to particle beams from 2-GeV/c to 350-GeV/c,” *Eur. Phys. J. C* **60**, 359 (2009) Erratum: [*Eur. Phys. J. C* **61**, 353 (2009)].
- [17] M. Slater *et al.*, “Cavity BPM system tests for the ILC energy spectrometer,” *Nucl. Instrum. Meth. A* **592**, 201 (2008).
- [18] P. Adzic *et al.* [CMS Electromagnetic Calorimeter Group Collaboration], “Intercalibration of the barrel electromagnetic calorimeter of the CMS experiment at start-up,” *JINST* **3**, P10007 (2008).
- [19] S. Chatrchyan *et al.* [CMS Collaboration], “The CMS experiment at the CERN LHC,” *JINST* **3**, S08004 (2008).
- [20] S. Walston *et al.*, “Resolution of a High Performance Cavity Beam Position Monitor System,” *Conf. Proc. C* **070625**, 4090 (2007) [*IEEE Nucl. Sci. Symp. Conf. Rec.* , 4090 (2007)].
- [21] B. Aubert *et al.* [BaBar Collaboration], “Observation of Decays  $B^0 \rightarrow D_s (*) + \pi^-$  and  $B^0 \rightarrow D_s (*) - K^+$ ,” *Phys. Rev. Lett.* **98**, 081801 (2007) [hep-ex/0604012].
- [22] B. Aubert *et al.* [BaBar Collaboration], “A study of the rare decays  $B^0 \rightarrow D_s^{(*)+}\pi^-$  and  $B^0 \rightarrow D_s^{(*)-}K^+$ ,” *Phys. Rev. Lett.* **90**, 181803 (2003) [hep-ex/0211053].

## Non-refereed Articles

- [1] CMS Collaboration, “Search for Higgs boson pair production in the final state containing two photons and two bottom quarks in proton-proton collisions at  $\sqrt{s} = 13$  TeV,” CMS-PAS-HIG-17-008.
- [2] CMS Collaboration, “The Phase-2 Upgrade of the CMS Barrel Calorimeters Technical Design Report,” CERN-LHCC-2017-011. CMS-TDR-015.
- [3] D. de Florian *et al.* [LHC Higgs Cross Section Working Group], “Handbook of LHC Higgs Cross Sections: 4. Deciphering the Nature of the Higgs Sector,” doi:10.23731/CYRM-2017-002 arXiv:1610.07922 [hep-ph].
- [4] CMS Collaboration, “Higgs to WW measurements with  $15.2 \text{ fb}^{-1}$  of 13 TeV proton-proton collisions,” CMS-PAS-HIG-16-021.



- [5] CMS Collaboration, “Measurements of properties of the Higgs boson decaying to a W boson pair in pp collisions at  $\sqrt{s} = 13$  TeV,” CMS-PAS-HIG-16-042.
- [6] CMS Collaboration, “Search for high mass Higgs to WW with fully leptonic decays using 2015 data,” CMS-PAS-HIG-16-023.
- [7] CMS Collaboration, “First results on Higgs to WW at  $\sqrt{s} = 13$  TeV,” CMS-PAS-HIG-15-003.
- [8] CMS Collaboration, “Measurement of the WW cross section pp collisions at sqrt(s)=13 TeV,” CMS-PAS-SMP-16-006.
- [9] G. Aad *et al.* [ATLAS and CMS Collaborations], “Measurements of the Higgs boson production and decay rates and constraints on its couplings from a combined ATLAS and CMS analysis of the LHC *pp* collision data at  $\sqrt{s} = 7$  and 8 TeV,” arXiv:1606.02266 [hep-ex].
- [10] V. Khachatryan *et al.* [CMS Collaboration], “Measurement of the transverse momentum spectrum of the Higgs boson produced in pp collisions at sqrt(s) = 8 TeV using H to WW decays,” arXiv:1606.01522 [hep-ex].
- [11] V. Khachatryan *et al.* [CMS Collaboration], “Search for Higgs boson off-shell production in proton-proton collisions at 7 and 8 TeV and derivation of constraints on its total decay width,” arXiv:1605.02329 [hep-ex].
- [12] CMS Collaboration, “Search for new physics in final states with low transverse energy photon and missing transverse energy,” CMS-PAS-HIG-14-024.
- [13] CMS Collaboration, “Search for High-Mass Diphoton Resonances in pp Collisions at sqrt(s)=8 TeV with the CMS Detector,” CMS-PAS-EXO-12-045.
- [14] CMS Collaboration, “VH with  $H \rightarrow WW \rightarrow \ell\nu\ell\nu$  and  $V \rightarrow jj$ ,” CMS-PAS-HIG-13-017.

## Conference Proceedings

1. T. Orimoto, on behalf of the CMS Collaboration, “Design studies for the Phase II upgrade of the CMS Barrel Electromagnetic Calorimeter,” PoS **ICHEP2016**, 232 (2016). Prepared for the 2016 International Conference on High Energy Physics (ICHEP), Chicago, IL.
2. T. Orimoto, on behalf of the CMS Collaboration, “Search for new physics in the low MET monophoton channel with the CMS Detector,” arXiv:1511.00337 [hep-ex]. Prepared for the 2015 Meeting of the American Physical Society Division of Particles and Fields, Ann Arbor, MI.
3. T. J. Orimoto, on behalf of the CMS Collaboration, “Searches for high mass resonances with the CMS detector,” EPJ Web Conf. **28**, 09010 (2012). Prepared for Hadron Collider Physics Symposium 2011, Paris, France.
4. T. J. Orimoto [CMS Collaboration], “Commissioning of the CMS electromagnetic calorimeter with first collisions,” Nucl. Phys. Proc. Suppl. **215**, 116 (2011). Prepared for the Innovative Particle and Radiation Detectors 2010, Siena, Italy.

5. T. J. Orimoto, on behalf of the CMS Collaboration, “First CMS results with LHC beam,” arXiv:0905.4814 [hep-ex]. Prepared for the 2009 Lake Louise Winter Institute, Lake Louise, Canada.
6. T. J. Orimoto, on behalf of the CMS Electromagnetic Calorimeter Collaboration, “The CMS electromagnetic calorimeter: Construction, commissioning and calibration,” PoS **EPS-HEP2009**, 129 (2009). Prepared for the 2009 Europhysics Conference on High Energy Physics (EPS-HEP), Krakow, Poland.
7. T. J. Orimoto [CMS ECAL Group Collaboration], “The commissioning of the CMS electromagnetic calorimeter light monitoring system,” doi:10.1109/NSSMIC.2008.4774803. Prepared for the 2008 IEEE Nuclear Science Symposium and Medical Imaging Conference, Dresden, Germany.
8. T. Orimoto, on behalf of the CMS ECAL Group, “The CMS ECAL laser monitoring system,” published in *Astroparticle, Particle and Space Physics, Detectors and Medical Physics Applications: Proceedings of the 10th Conference*. Prepared for the 10th ICATPP Conference on Astroparticle, Particle, Space Physics, Detectors and Medical Physics Applications 2007, Villa Olmo, Como, Italy.
9. T. Orimoto, on behalf of Babar Collab., “New measurements of the angle  $\gamma$  from the BaBar experiment,” SLAC-PUB-11783, Frascati Phys. Ser. **41**, 361 (2006). Prepared for the 2006 International Workshop on Discoveries in Flavour Physics at e+e- Colliders, Frascati, Italy.
10. Babar Collaboration, “A search for the rare decay  $B^0 \rightarrow D_s^+ \rho^-$ ,” SLAC-PUB-10602, BABAR-CONF-04-005, hep-ex/0408029. Prepared for the 32nd International Conference on High-Energy Physics 2004, Beijing, China.
11. Babar Collaboration, “A study of the rare decays  $B^0 \rightarrow D_s^{(*)+} \pi^-$  and  $B^0 \rightarrow D_s^{(*)-} K^+$ ,” SLAC-PUB-9302, BABAR-CONF-02-034, hep-ex/0207053. Prepared for the 31st International Conference on High Energy Physics 2002, Amsterdam, The Netherlands.
12. Babar Collaboration, “Evidence for the  $b \rightarrow u$  transition  $B^0 \rightarrow D_s^+ \pi^-$  and a search for  $B^0 \rightarrow D_s^{*+} \pi^-$ ,” SLAC-PUB-9231, BABAR-CONF-02-08, hep-ex/0205102. Prepared for Flavor Physics and CP Violation 2002, Philadelphia, Pennsylvania.

## University & Physics Department Activities

- 2018-present: Informal mentor to NU graduate women in physics
- 2017-present: College of Science Diversity Committee member
- 2015-present: Undergraduate Awards Committee
- 2014-present: Informal advisor to NU undergraduate women in physics
- 2013-present: Undergraduate & Graduate Recruitment
- 2013-present: Advisor to Society of Physics Students
- 2012-present: Colloquium & Seminar Committee

- 2012-present: Executive Committee alternative representative for the HEE group
- 2013-2016: Graduate Committee

## Teaching and Mentoring at Northeastern University

### Courses Taught

- PHYS1161 (Physics 1): Fall 2016
- PHYS1165 (Physics 2): Spring 2014, 2016, 2017, 2018
- PHYS1145 (Physics for Life Sciences 1): Fall 2013 & 2015

### PhD Thesis Committee Member

- Andrew Spisak (Physics 2017): "Probing Coannihilation Regions of Supergravity Unification at the LHC"
- Sujeet Akula (Physics 2014): "Exploring Models of Supergravity Grand Unification with LHC and Dark Matter Phenomenology"
- David Francescone (Physics 2015): "Supergravity Unification, Dark Matter and LHC Signatures Post Higgs Boson Discovery"
- David Nash (Physics 2016), "The Search for Single Production of First and Second Generation Leptoquarks in  $pp$  collisions at the LHC"

### Outreach Activities

- QuarkNet Master Classes, 2015-present.
- The Music of the Higgs Boson guest lecture at Berklee College of Music, Feb 2014.
- Panel member for "Looking Back & Moving Forward - Future of the Women's Movement Panel", 2014.
- Symmetry magazine "Physicist to Follow" on Twitter, Jan 2014.
- Adopt-A-Physicist, Nov 2012.
- Lecture at TEDxUNIGE, "Empowering the Limitless Mind", Geneva, Switzerland, Nov 2012.
- Outreach lectures at the Anderson Middle School, New York, NY, Dec 2010, 2011.