Matthew C. Feickert

Curriculum Vitae, August 2014

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Education

August 2014 to 2019 (expected): Southern Methodist University, Dallas, TX

Ph.D., Physics

Thesis Area: Experimental high energy physics

August 2012 to December 2013: University of Virginia, Charlottesville, VA

M.A., Physics

August 2007 to May 2012: University of Illinois at Urbana-Champaign, Urbana, IL

B.S., Engineering Physics; Mathematics Minor

January 2009 to May 2009: University College Cork, Cork, Ireland

Study Abroad Spring Semester 2009

August 2003 to May 2007: Champaign Central High School, Champaign, IL

Valedictorian

Research Interests

My research interests are in experimental high energy physics. I have studied the $H \to WW \to \ell\nu qq$ decay channel as part of the Higgs search. In general, I am interested in electroweak symmetry breaking, top physics, technological advancements in hardware upgrades for the LHC detectors, and advancement of the LHC Computing Grid.

Research Experience

August 2012 to December 2013: Graduate Research Assistant, High Energy Physics Group

Advising Professor: Bob Hirosky, Department of Physics

University of Virginia, Charlottesville, VA

Analysis software development for single photon detection with gallium indium arsenide detectors

June 2009 to August 2012: Undergraduate Research Assistant, High Energy Physics Group

Advising Professor: Mark S. Neubauer, Department of Physics

University of Illinois at Urbana-Champaign, Urbana, IL

ATLAS hardware tracker for trigger upgrade (FTK);

Search for Higgs Boson using the $H o WW o \ell \nu qq$ Decay Channel

May 2010 to August 2010: URA Visiting Scholar at Fermilab, CDF Experiment; Higgs to WW Group

Fermilab Sponsor: Eric James, Fermi National Accelerator Laboratory

A Search for WZ and WW Resonances (including Higgs) in the $\ell\nu qq$ Final State

physics.illinois.edu/news/story.asp?id=1019

July 2005 to August 2007: Laboratory Assistant, Jacobi Research Group

Advising Professor: Anthony M. Jacobi, Department of Mechanical Engineering

University of Illinois at Urbana-Champaign, Urbana, IL

Condensate retention of heat exchangers; Heat transfer in two-phase flow

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Professional Activities

2009 to 2012: Physics Society, University of Illinois at Urbana-Champaign, PhySoc Wiki

May 2011 to May 2012: President

August 2007 to May 2012: Engineers Without Borders UIUC Chapter

University of Illinois at Urbana-Champaign

Teaching Experience

August 2014 to present: Graduate Teaching Assistant

Southern Methodist University, Department of Physics

August 2014 to December 2014: PHYS 1303 - Introductory Mechanics

PHYS 1304 - Introductory Electricity and Magnetism

August 2012 to December 2013: Graduate Teaching Assistant

University of Virginia, Department of Physics

August 2013 to December 2013: PHYS 2630 - Elementary Laboratory I

Rated 4.51/5.00 by students

January 2013 to May 2013: PHYS 1620 - Introductory Physics II

Rated 4.51/5.00 by students

August 2012 to December 2012: PHYS 2030 - Basic Physics Laboratory I

Rated 4.18/5.00 by students

August 2011 to May 2012: Undergraduate Teaching Assistant

University of Illinois at Urbana-Champaign, Department of Physics

January 2012 to May 2012: Two lab sections of PHYS 211 - University Physics: Mechanics

Teachers Ranked as Excellent By Their Students list.

August 2011 to December 2011: Two lab sections of PHYS 211 - University Physics: Mechanics

Teachers Ranked as Excellent By Their Students list.

Publications and Letters

Study of c-jet Tagging in the $H \to WW \to \ell \nu qq$ Decay Channel at the ATLAS Detector, Matthew Feickert, Undergraduate Senior Thesis, Department of Physics, University of Illinois at Urbana-Champaign, Urbana, IL (2011). Unpublished.

Invited Talks and Presentations

Matthew Feickert, "Study of c-jet Tagging in the $H \to WW \to \ell\nu qq$ Decay Channel at the ATLAS Detector," 5th Annual Campus Undergraduate Research Symposium, University of Illinois at Urbana-Champaign, Urbana, IL, April 11, 2012.

Matthew Feickert, "Study of c-jet Tagging in the $H \to WW \to \ell\nu qq$ Decay Channel at the ATLAS Detector," 11th Annual Undergraduate Research Symposium, Department of Physics, University of Illinois at Urbana-Champaign, Urbana, IL, January 27, 2012.

Matthew Feickert, "Neutrino Physics & Phenomena," Physics Society Talk on Neutrino Physics, Undergraduate Physics Society, University of Illinois at Urbana-Champaign, Urbana, IL, February 23, 2011.

Matthew Feickert, "The Tevatron's and LHC's Higgs Search," Physics Society Talk on High Energy Physics, Undergraduate Physics Society, University of Illinois at Urbana-Champaign, Urbana, IL, October 13, 2010.

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Awards & Scholarships

| 2013 | National Science Foundation Graduate Research Fellowship Program Honorable Mention |
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| 2012 | Robert E. Hetrick Outstanding Senior Thesis Award |
| 2011 | University of Illinois College of Engineering Dean's List for academic excellence |
| 2011 | UIUC Undergraduate Research Colloquy Best Poster Award, 2nd Place |
| 2011 | Illinois General Assembly Legislative Scholarship |
| 2010 | Universities Research Association Visiting Scholar at Fermilab |
| 2009 | International Programs in Engineering International Engineering Fellowship |
| 2007 to 2012 | University of Illinois College of Engineering Calvin Barnes Niccolls Memorial Scholarship |

Technical Skills

Technical Programs Mathematica, Sage C++, Python

Web Technologies HTML5, JavaScript, CSS

OS and Environments Linux (Scientific Linux, Ubuntu), Unix, Mac OS X, Windows, ROOT

Outreach

July 17th, 2012 *iFEX Summer Scholars* guest lecturer

September 2011 to May 2012 Student mentor to undergraduate physics majors

July 27th, 2011 Discover Engineering demonstrator

June 28th, 2011 Illini Summer Physics Academy guest lecturer

June 14th & June 15th, 2011 EnLiST Physics Summer Institute teaching assistant, enlistapplication.com/site/

Languages

Native speaker of English, working knowledge of German

Professional LaTeX Typsetting

2012 Advanced Solid State Physics (Second Edition), Dr. P. Phillips; Assistant typsetter to Cambridge University Press Publishing