Matthew C. Feickert

Curriculum Vitae, August 2014

Southern Methodist University
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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 $H \rightarrow WW \rightarrow \ell\nu qq$ 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 $H \rightarrow WW \rightarrow \ell\nu qq$ 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

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 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.

Awards & Scholarships

2013	National Science Foundation Graduate Research Fellowship Program Honorable Mention
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
Languages	C++, Python
Web Technologies	HTML5, JavaScript, CSS
OS and Environments	Linux (Scientific Linux, Ubuntu), Unix, Mac OS X, Windows, ROOT
Other	LaTeX 2_ε (including beamer class), Vim, SQL

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