

Jonathan A. Asaadi
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Education

Ph.D., Physics, Texas A&M University, College Station TX

(Awarded 2012)

- Thesis Topic: Search for New Physics in the Exclusive γ +Missing Transverse Energy Channel in $p\bar{p}$ collisions at $\sqrt{s} = 1.96$ TeV
- Advisor: Professor David Toback
- Area of Study: Experimental Particle Physics

M.S., Physics, Texas A&M University, College Station TX

(Awarded 2007)

- Thesis Topic: Supersymmetry, New Physics Prospects, & Grid Computing
- Advisor: Professor David Toback
- Area of Study: Experimental Particle Physics

B.S., Physics, University of Iowa, Iowa City IA

(Awarded 2004)

- Minor in Mathematics

Citizenship USA

Awards

Texas A&M

- Sen. Gramm Doctoral Fellowship Nominee Texas A&M Physics Department (2009)
- American Association of Physics Teachers Outstanding Teaching Assistant (2008)
- Student Research Week 2nd Place Oral Presentation College of Science (2008)
- Whitmore Fellowship for Graduate Studies Texas A&M (2004)

University of Iowa

- College of Science Dean's List (2003)
- Roy J. Carver Scholastic Scholarship University of Iowa (2002)
- Emulation Lodge 255 Iowa Masonic Scholarship Endowment (2001 & 2002)

Physics Research Experience

Post-Doctoral Researcher Syracuse University

MicroBooNE Collaboration

January 2012 to Present

- Neutral Current π^0 Studies in the MicroBooNE detector (In progress)
- Assist in the fabrication, production and assembly of the Y-Plane wires for the Time Projection Chamber (In progress)
- Co-convener of the MicroBooNE Research and Development Working Group (July 2012 - Present)

Project Leader: Prof. Mitch Soderberg

Research Assistant Texas A&M University

Collider Detection at Fermilab (CDF) Collaboration

September 2007 to Present

- Search for delayed photon in exclusive γ + Missing Transverse Energy final state (Completed 2012)
- Assist in maintenance of EMTiming instrument and software for electromagnetic calorimeter with timing (2008 - 2011)
- Assist in maintenance of ObjectMon for Run II online/offline monitoring (2008 - 2011)
- CDF shift crew Data Acquisition Quality expert 'ACE' (April 2009 to August 2009)
- CDF author list (August 2009 to Present)

Project Leader: Prof. David Toback

Compact Muon Solenoid (CMS) Collaboration

June 2008 to June 2010

- Searching for Supersymmetry at high $\tan \beta$ in the Jet+Missing Transverse Energy+ τ final state
- Data Quality Monitoring (DQM) for CMS Remote Operations Center (ROC) at Fermi National Lab during commissioning cosmic ray runs (CRUZET II, CRUZET III, and CRAFT)
- Searching for Supersymmetry using top quarks at the LHC (Phenomenology Project)
- CMS Author List (September 2009 to 2010)

Project Leader: Prof. David Toback, Prof Teruki Kamon

The Academy of Advanced Telecommunications and Learning Technologies

June 2006 to June 2007

- Development of high throughput grid computing for use as a CMS Tier 3 computing station using virtual machines at Texas A&M to allow utilization of unused student computing resources

Project Leader: Prof. David Toback, Prof Guy Almes

Undergraduate Research Assistant University of Iowa

Advanced Laboratory Undergraduate Course Development

August 2002 to December 2002

- Building and testing of Mossbauer experiment and multi-dipole plasma experimental apparatus, develop acquisition software, and help develop lab procedure manual for use in advanced undergraduate course

Project Leader: Prof. Frederic Skiff

**Papers,
Workshop and
Conference Talks**

The Time Projection Chamber for the MicroBooNE experiment at Fermilab
Poster Presentation at Neutrino 2012

(June 2012)

The Search for New Physics in the Exclusive γ +Missing Transverse Energy Final State,

To be submitted to Physics Review Letters , J.Asaadi, A. Aurisano, D. Goldin, J. Nett, D. Toback

(December 2012)

Calibration and Performance of the EMTiming and Central Outer Tracker System for use in Delayed Photon Searches,

Internal Document (CDFNote 10607) , J.Asaadi, A. Aurisano, D. Goldin, J. Nett, D. Toback

(June 2012)

Tevatron Timing and z Collision Distribution for use in Delayed Photon Analysis,

Internal Document (CDFNote 9812), J. Asaadi, R. Moore, D. Toback

(December 2009)

GMSB Search in the Exclusive γ +Missing Transverse Energy Final State,

Presentation at the CDF Collaboration Meeting, Fermilab Batavia, IL

(October 2010 & February 2011)

Using Top Quarks to Determine SUSY Masses at the LHC,

Presentation at Texas A&M Student Research Week, College Station, TX

(March 2008)

Technical Skills

Teaching Applications: Blackboard/Elearning, Calibrated Peer Review Online Tools (CPR), Turnitin.com (Online Plagiarism Detector)

Programming: C, C++, Python, FORTRAN, UNIX shell scripting, HTML

Applications: ROOT, CMSSW, Maple, Condor, VMWare, NVU (HTML Editors) \TeX , \LaTeX , \BIBTeX , Microsoft Office (Word, Excel, Outlook, Powerpoint), and other common productivity packages for Windows, OS X, and Linux platforms

Operating Systems: Microsoft Windows XP/Vista/7, Apple OS X, Scientific and Ubuntu Linux as well as other UNIX variants

**Committees and
Group Service**

Co-Converner MicroBooNE R&D Group

(July 2012 to Present)

Member of Interactions.org online blogging community *Quantum Diaries* sharing professional experiences with general science readers

(October 2009 to Present)

Graduate Student Representative Department of Physics, Texas A&M

(June 2006 to June 2007)

Member Muslim Student Association, Texas A&M Chapter

(August 2004 to 2008)

Member Muslim Student Association, University of Iowa Chapter

(January 2001 to June 2004)

Fraternal Order of Free Masons Emulation Lodge 255, Clinton, Iowa

(August 2001 to Present)

References

Professor Mitch Soderberg

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Professor David Toback

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