Curriculum Vitae

Carsten Rott

Personal Information

Date of Birth: May 16th, 1974
Place of Birth: Hannover, Germany
Nationality: German

Purdue University
Fermilab, CDF, MS 318
P.O. Box 500
Batavia, IL 60510, USA
Tel: (+1) 630 840-8411
Fax: (+1) 630 840-2968
e–mail: carott@fnal.gov

Education

1998 – 2004 :   Purdue University, Indiana, USA
                Ph.D in Experimental Particle Physics (expected graduation date: Dec. 2004)
                Thesis : "Search for Scalar Bottom Quarks from Gluino Decays" performed at CDF
                Thesis Advisor : Prof D. Bortoletto
                M.Sc in Physics (September 1999)
1995 – 1998 :   Universität Hannover, Hannover, Germany
                "Vordiplom Physik" (German Pre-Master Certificate) (September 1997)

Honors and Awards

2004   :   George W. Tautfest Award, Purdue University
                  Sigma Xi Poster Award, Honorable Mention, Purdue University
1998 – 1999 :   Purdue University direct exchange fellowship

Research Experience

- Fermilab/CDF Experiment; (2000-present)
  - Leadership
    Convener of Purdue Group meetings at CDF
    Purdue CAF (Central Analysis Farm) data disk coordinator
  - Physics Analysis and Software
    "Search for Bottom Squarks from Gluino Decays" (Ph.D Thesis) (to be submitted to PRL)
    Search for Z associated Higgs production at Tevatron
    Development of a MC visualization tool for CDF's Event Display
    Leading role in development and optimization of secondary vertex tagging algorithm used for
    Top physics and exotic searches
    Understanding of missing energy and development of standard clean up cuts for the CDF
    collaboration
    Comparison of primary vertex finding algorithms
  - Hardware and Service Work for the Experiment
    CDF Run IIa shift crew (Data acquisition and detector monitoring)
    Testing of silicon microstrip detectors

- CERN/CMS Experiment; (2000-2003)
  - Development and testing of silicon pixel sensors
  - Irradiation studies and probstation operations
  - Beam test at CERN (June - August 2000) with silicon and diamond pixel detector and data
    analysis (published in **Nucl.Instrum.Meth.A488:271-281,2002**)

- Fermilab/Muon Collider Experiment; (Summer 1999)
  - Muon beam simulation and stochastic cooling

- Student Research Projects; (1997-2000)
  - Optics / Quantum Optics
    Building and operation of ND:YAG Laser (at Laser Zentrum Hannover) , Absorption spectroscopy , One atom maser , Detection of gravitational waves (GEO 600 experiment) , Laser-fluorescence-spectroscopy , Laser gyroscopes
  - Solid State Physics
    Testing of superconductors and operation of cryogenic systems
  - Astrophysics / Astronomy
    Telescope operation , Solar and Deep Sky observation, Neutron stars
  - Nuclear / High Energy Physics
    Proton beam studies, Development of a prebuncher simulation, Detection, identification and classification of radioactive materials

Employment Summary

2000 – present	Research Assistant, Department of Physics, Purdue University, USA
1999	Summer Research Assistant, Fermi National Accelerator Laboratory, USA
1999	Graduate Instructor, Department of Physics , Purdue University, USA
1997	Teaching Assistant and Grader, Institut für Theoretische Physik, Hannover, Germany
1996, 1997	During CEBIT computer fair assistant for Novell Networks and AWI, Hannover, Germany
1994 – 1995	Zivildienst (Community service as mobile nurse as alternative to German military service)

Conference Talks and Seminars

- *"Search for Gluino decaying into Sbottom and Bottom "*,
  CDF Week, July 26-30, 2004, Batavia, IL, USA
- *"Searches for the Supersymmetric Partner of the Bottom Quark"*,
  SUSY 2004, June 17-23, Tsukuba, Japan *(awarded travel support)*
- *"CDF Run 2 Searches for Physics Beyond the Standard Model Using Heavy Flavor Jets and Missing Transverse Energy"*, APS April Meeting 2004, May 1-4, Denver, CO, USA *(NSF travel support)*
- *"Search for Gluino into Sbottom and Bottom"*,
  CDF Collaboration Meeting, September 18, 2003, Batavia, IL, USA
- *"Search for the Supersymmetric Partner of the Bottom Quark using the CDF Detector at the Tevatron"* (Poster), LP 2003, August 11-16, Batavia, Il, USA
- *"Search for Top and Bottom Squarks"*,
  EPS 2003, July 17-23, Aachen, Germany
- *"Optimization of the SecVtx Tagging Algorithm "*,
  CDF Collaboration Meeting, January 23-24, 2003, Batavia, IL, USA
- *"Test Beam Results for the CMS Forward Pixel Detector"*,
  New Perspectives 2001 , June 13, Fermilab, Batavia, IL, USA
- *"Test Beam Results for the CMS Forward Pixel Detector"*,
  APS April Meeting 2001, April 28 - May 1, Washington, DC, USA

Schools and Conferences

- LHC2003, April 29 - May 2 2003 Batavia, IL, USA
- CTEQ2002, June 2-10, 2002, Madison, WI, USA
- Mini-Workshop of the FNAL Advanced Analysis Methods Group, May 31 - June 1, 2002, Batavia, IL, USA
- The 2001 European School of High-Energy Physics, August 26 - September 8, Beatenberg, Switzerland (presented Poster *"CMS Forward Pixel Detector"*)
- VERTEX 2000, September 10-15, Sleeping Bear Dunes National Lakeshore, MI, USA (scientific secretary)

Outreach

- Several public talks and guiding tours and observations at the Volkssternwarte Hannover (Public observatory), Germany

Personal Interest/Skills

Programming Languages:	C++, Java, Basic, Pascal, HTML, Shell scripts
Software:	Root, PAW, Maple, Labview, MS Office, Web design and Internet applications
Operating Systems:	Windows 95/98/2000/NT4.0/XP, MS-DOS, Linux
Languages:	German, English, elementary French, Japanese and Korean
Hobbies:	Travel, Astronomy, Music, Arts, Cocktail mixing, News, Stock trading
Favorite Sports:	Skiing, Inline skating, Softball, Squash, Tennis

Referees

1. **Prof. Daniela Bortoletto**
   Purdue University
   Department of Physics
   525 Northwester Avenue
   West Lafayette, IN 47907, USA

   Phone:(+1) 765-494-5197
   Fax: (+1) 765-494-0706
   daniela@physics.purdue.edu

2. **Dr. Douglas A. Glenzinski**
   Fermilab
   P.O.Box 500
   MS 318
   Batavia, IL 60510, USA

   Phone:(+1) 630-840-8095
   Fax:(+1) 630-840-2968
   douglasg@fnal.gov

3. **Dr. Stephan Lammel**
   Fermilab
   P.O.Box 500
   MS 318
   Batavia, IL 60510, USA

   Phone:(+1) 630-840-8408
   Fax:(+1) 630-840-2968
   lammel@fnal.gov