

Jefferson Lab (preferred)

Office 12/F-340, Suite 6
12000 Jefferson Avenue
Newport News, VA 23606
Phone: (757) 269-5743

Massachusetts Institute of Technology

Laboratory for Nuclear Science
77 Massachusetts Avenue
Cambridge, MA 02139
Phone: (617) 253-4288

Education

Ph.D. in Physics, April 2008 (Professor Wolfgang Lorenzon)
“The Search for Exotic Baryons at the HERMES Experiment”
University of Michigan, Ann Arbor, Michigan

M.S. in Engineering Physics, with great distinction, July 2003 (Professor Dirk Aeyels)
University of Gent, Belgium

Appointments

Massachusetts Institute of Technology
Postdoctoral Associate
Professors Aron Bernstein and Stanley Kowalski
Responsible for the design and construction of a photon detector for the Compton polarimeter in Hall C at Jefferson Lab. Coordinator of the track reconstruction and simulation efforts in parity-violating elastic electron scattering on a hydrogen target to determine the weak charge of the proton in the Q_{Weak} experiment at Jefferson Lab. Spokesperson on a proposed measurement of neutral pion photoproduction asymmetries in the threshold region at the A2 experiment in Mainz, Germany.

Jefferson Lab, Virginia
June 2008–present

Deutsche Elektronen Synchrotron (DESY)
Research Fellow
Professor Wolf-Dieter Nowak
Development of a magnetic field tracking framework for secondary baryons with displaced vertices. Preparation of a publication with results on exotic baryons in data collected at the HERMES experiment.

HERMES, DESY, Germany
January–May 2008

University of Michigan, Physics
Research Assistant
Professor Wolfgang Lorenzon
Analysis of exotic baryons in data collected at the HERMES experiment. Responsible for the operation of the longitudinal Compton polarimeter of the HERA lepton accelerator.

HERMES, DESY, Germany
July 2003–December 2007

University of Gent, Engineering
Master’s Project
Professor Dirk Aeyels
Investigation of the use of optimal control in the design of moon and Mars missions by concatenation of trajectories on invariant energy manifolds.

EESA, Gent, Belgium
October 2002–May 2003

Awards and Fellowships

Margaret and Herman Sokol International Research Fellowship in the Sciences, 2005
Rackham Graduate School, University of Michigan

Wirt and Mary Cornwell Award, 2005
Physics Department, University of Michigan

Distinguished Dissertation Award (honorable mention), 2008
Rackham Graduate School, University of Michigan

Fellowship in Experimental Particle Physics, 2008
Deutsches Elektronen-Synchrotron (DESY), Germany

Competitive Applications

Hampton University Graduate School Summer School 2004
Hampton University and Jefferson Lab, Virginia

National Nuclear Physics Summer School 2006
Indiana University, Bloomington, Indiana

National Nuclear Physics Summer School 2008
George Washington University, Washington, D.C.

Presentations

Conferences

- “Search for Exotic Baryons at HERMES,” American Physical Society, April Meeting 2004, Denver, Colorado
- “Search for Exotic Baryons at HERMES,” American Physical Society, April Meeting 2005, Tampa, Florida
- “Search for Exotic Baryons at HERMES,” Quarks and Nuclear Physics, June 2006, Madrid, Spain
- “Hybrid Electron-Compton Polarimeter with Online Self-Calibration,” Precision Electron Beam Polarimetry for the Electron Ion Collider, August 2007, Ann Arbor, Michigan
- “Experimental Techniques in Hadron Spectroscopy,” Gordon Research Conference on Photonuclear Reactions, August 2008, Tilton, New Hampshire
- “Precision Compton Polarimetry for the Qweak Experiment at Jefferson Lab,” 4th International Workshop “From Parity Violation to Hadronic Structure and more...” (PAVI), June 2009, Bar Harbor, Maine

Seminars

- “Search for Exotic Baryons at HERMES,” Hampton University Graduate School Summer School 2004, Jefferson Lab, Virginia, June 2004
- “Analysis of Exotic Baryons at HERMES,” Spin Physics Seminar, University of Michigan, November 2004
- “Exotic Baryons at HERMES,” Graduate Student Seminar, DESY, Germany, July 2005

- “Exotic Baryons at HERMES,” Graduate Student Mini-Colloquium, University of Michigan, December 2005
- “Search for Exotic Baryons at HERMES,” National Nuclear Physics Summer School, Indiana University, Bloomington, Indiana, July 2006
- “Pentaquarks: Fact or Myth?” Nuclear Physics Seminar, University of Gent, Belgium, November 2006
- “Pentaquarks: Exotic Species Almost Extinct?” Graduate Student Mini-Colloquium, University of Michigan, January 2007
- “Pentaquarks: Much Ado About Nothing?” Nuclear Physics Seminar, University of Virginia, Charlottesville, Virginia, October 2007
- “Pentaquarks: Much Ado About Nothing?” Laboratory for Nuclear Science Seminar, Massachusetts Institute of Technology, Cambridge, Massachusetts, December 2007
- “The Q_{Weak} Experiment: A Search for Physics at the TeV Scale,” Laboratory for Nuclear Science Seminar, Massachusetts Institute of Technology, Cambridge, Massachusetts, November 2009