

Sabine A. Fuchs

The College of William and Mary, Department of Physics, P.O. Box 8795
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Objective

Contributing to research as a Laboratory Technician at The College of William and Mary to support experiments conducted at the Thomas Jefferson National Accelerator Facility using polarized Helium-3.

Professional Experience

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| The College of William & Mary
Laboratory Technician in the Polarized Helium-3 Target Laboratory | Williamsburg, Virginia
March 2005 - present |
| <ul style="list-style-type: none">▪ Responsible for day-to-day operation of the Polarized Helium-3 Target Laboratory▪ Using laser and nuclear magnetic resonance systems for extracting the polarization of Helium-3▪ Maintaining vacuum systems▪ Applying glassblowing techniques for preparing and filling glass cells▪ Collecting and analyzing data | |
| Thomas Jefferson National Accelerator
Parity violating electron scattering experiments Happex-H and Happex-He at the Thomas Jefferson National Accelerator Facility in Newport News, Virginia | Newport News, Virginia
Fall 2005 |
| <ul style="list-style-type: none">▪ Participation in data taking | |
| The College of William & Mary
Experiment G_{Ep}/G_{Mp} to $Q^2 = 9 \text{ GeV}^2$ via Recoil Polarization at the Thomas Jefferson National Accelerator Facility in Newport News, Virginia | Williamsburg, Virginia
May – December 2004 |
| <ul style="list-style-type: none">▪ Characterizing scintillator response using cosmics▪ Setting up a test stand for horizontal drift chambers▪ Participation in data taking during test run | |
| Johannes Gutenberg Universität
Tagged photon experiments at the electron accelerator ‘MAMI’ in Mainz, Germany | Mainz, Germany
Summer 2001 |
| <ul style="list-style-type: none">▪ Testing, grading and repairing scintillator panels for neutron detection | |

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Education

Master of Science in Physics
GPA: 3.73/4.00

The College of
William and Mary

Williamsburg, Virginia
December 2004

Vordiplom in Physik
(comparable to the Bachelor of
Science in Physics)

Johannes Gutenberg
Universität

Mainz, Germany
August 2000

Teaching

The College of William & Mary

Teaching Assistant for undergraduate courses

Williamsburg, Virginia

Fall 2003 – Spring 2004

- Teaching introductory physics laboratory sections, grading laboratory reports
- Grading homework problems of the course Introductory Electrodynamics
- Grading homework problems of the course Introductory Thermodynamics and Statistical Mechanics

Professional Skills

- Experienced with MS office programs like Word, Excel and Corel Draw
- Experience in using Maple and Mathematica
- Experience in building websites
- Experience in technical drawing using Solidworks
- Experience with the program LabVIEW
- Experience in scientific glassblowing
- Experience in using vacuum systems
- Experience in handling cryogenics
- Experience in filling glass cells with Helium-3, Nitrogen and Alkali metals
- Experience in handling and using lasers and optical systems
- Experience in polarizing Helium-3 cells
- Experience in collecting and analyzing data of Nuclear Magnetic Resonance systems
- Experience in collecting and analyzing data of Electron Paramagnetic Resonance systems
- Machine shop training such as drilling, turning and milling. Experience in manufacturing custom parts using the student machine shop