

Name: Kevin Newman

Home University: University of Arizona, College of Optical Sciences and Engineering

Host University: University of Siegen

Field of Study: Experimental Physics

The RISE Program:

The RISE program provides research opportunities for English speaking students in various universities and institutes across Germany. There are so many sponsors with such a wide range of research projects that you are bound to find something suitable for your abilities and interests. Students typically work directly with a PhD student and sometimes with other interns.

The meeting in Heidelberg was a great opportunity to meet other interns and learn about post-graduate opportunities in Germany. Heidelberg is considered of the most beautiful cities in Germany, and students are provided with a five day rail pass which can be used to visit other great cities! Students are introduced to graduate school programs at various universities in Germany, with the possibility of DAAD scholarships to help fund the programs. After my experiences with the RISE program, I am seriously considering graduate school at a German University through the DAAD.

My Internship:

I worked with the Quantum Optics Group at the University of Siegen. As an experimental physics group we researched the properties and applications of Paul ion traps, which are necessary to attain quantum information processing. My specific project was to build up an atomic beam source and a diode laser for the purpose of Barium ionization in a miniaturized surface trap. As a student of optics, the opportunity to construct a laser from start to finish was an exciting opportunity for me. Mostly lab work, I really enjoyed this field of experimental physics and wish I had more time with the group to continue my research. I feel that I have learned an extraordinary amount considering the internship only lasted for three months. An accurate account of my time spent with the RISE program should include the word 'efficient'. Not only did I learn from my project, but I was invited to group seminars and lecture series in which other students presented their research.

Personal Effects:

Although Siegen is a small city (~100,000 population) that many Germans have never heard of, I was actually very happy living here. The people are friendly and lack of German language skills is really not a problem. Of course visiting the major cities is also a lot of fun. If you have any interest in recreational flying I would recommend taking a lesson in a sail plane, there should be an airfield nearby. There is a 'happy family weekend' train ticket that lets you travel on any regional train with up to five people for only forty euro total. This is one fantastic way to see the smaller towns and countryside, as a group of friends can travel cheaply.

I agree that my report and accompanying pictures are used by the DAAD in printed materials, presentations and on the website in order to inform funding organizations, sponsors, and students about the RISE program.

Kevin Newman, University of Arizona, College of Optical Sciences and Engineering