

Anna Hambitzer

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Personal Data

Date of Birth May 12th, 1988
Place of Birth Bonn, Germany
Citizenship German

Education

since 2011 **Master of Science (Physics)**, *Rheinische Friedrich Wilhelms University Bonn*, Bonn, Germany, Expected Finishing Date: Nov 2012, Expected Grade: 1.2 (GPA: 4.0).
Specialisation Courses in Laser Physics, Quantum Optics and Ultracold Atoms

since 2011 **Member of the Bonn-Cologne Graduate School**, Honors Branch of the Master of Physics Program.

2007–2011 **Bachelor of Science (Physics)**, *Rheinische Friedrich Wilhelms University Bonn*, Bonn, Germany, Grade: 1.9.
Additionally attended course: Algorithmic Thinking and Imperative Coding

2007 **Secondary School Completion and University Qualification**, *Ernst-Moritz Arndt Gymnasium*, Bonn, Grade: 1.7.

Master Thesis

Title **Direct Synthesis for State-Dependent Transport**

Supervision Prof. Meschede, Bonn Dr. Andrea Alberti

Description A new scheme for state-dependent transport of ultracold atoms in optical lattices is investigated. It relies on two independent conveyor belts, each driven by one acousto-optical modulator. This requires active phase stabilization, realized by a phase locked loop. Challenging is the phase control on a μs time scale for the transport, which means that the bandwidth of the phase locked loop has to lie in the order of MHz.

Bachelor Thesis

Title **Frequency Stabilization of a Diode Laser with Frequency Modulation Spectroscopy**

Supervision Prof. Meschede, Bonn Prof. Artur Widera

Description An Electro-Optical Modulator (EOM) for frequency-modulation spectroscopy has been built. A crucial point was to achieve impedance matching of the EOM to the driving RF-source.

Conferences & Schools

- 2012 **DPG Conference**, *Organized by German Physicist Society (DPG)*, Annual Conference of German Physicist Society (DPG) with focus Atomic Physics.
Contribution: Poster on Direct Synthesis of Light Polarization for State-Dependent Transport.
- 2011 **MUARC Summer School**, *Organized by the Universities of Nottingham and Granada*, 'Quantum matter Foundations and new Trends'.
Contribution: Poster on Building of an Electro-Optical Modulator
- 2010 **41st IFF-Spring School**, *Organized by Forschungszentrum Jülich, Germany*, 'Electronic Oxides: Correlation Phenomena, Exotic Phases, and Novel Functionalities'.
No Contribution

Teaching Experience

Summerterm 2012 **Quantum Optics** Lecturer: Dr. Vewinger
Winterterm 2011/12 **Laser Physics** Lecturer: Prof. Meschede

Computer Skills

Languages Python, C++, C, Pascal
Graphics Inkscape, GIMP
Others L^AT_EX
OS Windows & Ubuntu Linux

Languages

German Native
English Fluent
Latin Basic (Kleines Lateinuum)
French Basic (School Course)

Possible Referees

Prof. Dieter Meschede

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Prof. Artur Widera

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