# Anna Hambitzer

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## Personal Data

Date of Birth May 12<sup>th</sup>, 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: Oct 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 AG Meschede, Bonn Supervisor: 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. Active phase stabilization is needed, while the transport requires at the same time phase control on  $\mu$ s-scale.

## Bachelor Thesis

Title Frequency Stabilization of a Diode Laser with Frequency Modulation Spectroscopy

Supervision AG Meschede, Bonn Supervisor: 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 **41**<sup>st</sup> **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: Professor Meschede

## Computer Skills

Languages Python, C++, C, Pascal Mathematics Mathematica, Matlab

Graphics Inkscape, GIMP

Others LATEX

OS Windows & Ubuntu Linux

# Languages

German Native

English Fluent

Latin Basic (Kleines Latinuum)

French Basic (School Course)

## Referees

#### Prof. Dieter Meschede

University of Bonn Institute for Applied Physics Wegelerstr. 8 53115 Bonn, Germany

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#### Prof. Artur Widera

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#### Dr. Andrea Alberti

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