

Anne Harth

academic curriculum vitae

Name: Anne Harth

Email: anne.harth@mpi-hd.mpg.de

Research Experience:

(2017 – now) Post doctoral research at MPIK, Heidelberg, Germany

In the division of Thomas Pfeifer

Research activities:

- Study of angular resolved photo-ionization;
- Simulation of dipole-transitions in the continuum;

(2013 – 2017) Post doctoral research at Lund University, Sweden

In the group of Anne L'Huillier

Research activities:

- Efficient generation of high-order harmonic radiation at high-repetition rates;
- CEP of pulses in a short attosecond pulse train;
- Photo-electron wave packet dynamics after auto-ionization;

(2008 – 2013) Research associate at Leibniz University of Hanover, Germany

In the group of Uwe Morgner

Research activities:

- Amplification of single-cycle pulses in the visible spectral range;
- CEP sensitive sub-cycle response of atomic bound states;
- Direct frequency comb spectroscopy with cold Rb atoms;

Teaching Experience:

2017	Tutorials on quantum mechanics and atomic physics, Heidelberg
2013 – 2016	Different lab teachings for students, Lund
2015	Supervision of one Bachelor student, Lund
2007 – 2013	Supervision of 3 Master students, Hanover
2007 – 2013	Different lab teaching for students, and teaching exercises for experimental and theoretical lectures in physics, Hanover

Education:

2013	Dr. rer. nat. (awarded with excellence) at Leibniz University of Hanover, Germany. Title of PhD thesis: “Parametric amplification of single-cycle pulses and their coherent interaction with a two-level system”
2007	Diploma (Master) degree (awarded with excellence) in Physics at Leibniz University of Hanover, Germany. Title of diploma thesis: “Measurement and stabilization of the carrier envelope phase of laser systems”
2004	Intermediate diploma (secondary subject: mathematics) at Leibniz University of Hanover, Germany
2002	Abitur , the German certificate of general qualification for university entrance, at the school “Gymnasium Ernestinum” in Celle, Germany

Additional Skills and Interests:

Research Interests:

Light-matter interaction, bound-bound and bound-free and free-free dipole transition, auto-ionization, ultra-short pulse generation, (carrier-wave) nonlinear optics, high-order harmonic generation, photo-ionization time delays, control of attosecond pulse trains, optical parametric amplification

Languages:

German (native language), English (fluent), Swedish (good)

Professional societies:

Member of the German Physical Society (DPG), Optical Society of America (OSA)

Publications:

- 18 published articles, including two as first author
- 1 articles in preparation, one as first author
- 3 invited talks
- 8 contribution in international conferences

Selected publications:

- David Busto et al., “Time-frequency representation of autoionization dynamics in helium ,” JOURNAL OF PHYSICS B 51, 044002 (2018)
- Chen Guo*, Anne Harth* et al., “Phase control of attosecond pulses in a train ,” JOURNAL OF PHYSICS B 51, 034006 (2018) (*shared first authorship)
- Anne Harth*, Chen Guo et al., “Compact 200 kHz HHG source driven by a few-cycle OPCPA ,” JOURNAL OF OPTICS 20,014007 (2018) (*shared first authorship)
- Marcus Isinger et al., “Photoionization in the time and frequency domain,” SCIENCE 358, 893 (2017)
- Piotr Rudawski*, Anne Harth* et al., “Carrier-envelope phase dependent high-order harmonic generation with a high-repetition rate OPCPA-system,” EUROPEAN PHYSICAL JOURNAL D 69, 70 (2015) (*shared first authorship)
- Tino Lang et al., “Impact of temporal, spatial and cascaded effects on the pulse formation in ultra-broadband parametric amplifiers,” OE 21, 949 (2013)
- Anne Harth et al., “Two-color pumped OPCPA system emitting spectra spanning 1.5 octaves from VIS to NIR,” OE 20, 3076 (2012)
- Tino Lang et al., “High power ultra-widely tunable femtosecond pulses from a non-collinear optical parametric oscillator (NOPO),” OE 20, 912 (2012)
- Stefan Rausch et al., “Few-cycle femtosecond field synthesizer,” OE 16, 17410 (2008)