

# Curriculum Vitae – Christian R. Ast

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Academic Title: Priv.-Doz. Dr. habil.  
Date of birth: March 5, 1976  
Address: Max-Planck-Institut für Festkörperforschung (MPI-FKF)  
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**Current Position:** Group Leader (W2)

## Professional Experience:

2013 – today Senior Scientist (W2 with tenure since 09/2016) and Group Leader in the Department of Prof. Kern at the MPI-FKF in Stuttgart, Germany  
2008 – 2012 Emmy-Noether Research Group Leader at the MPI-FKF in Stuttgart, Germany  
2007 PostDoc in the Department of Prof. Kern at the MPI-FKF in Stuttgart, Germany  
2005 – 2006 Emmy-Noether-Scholarship (Phase I) at the Ecole Polytechnique Fédérale de Lausanne, Switzerland and at the MPI-FKF in Stuttgart, Germany  
2004 Collaborateur Scientifique in the group of Prof. Grioni at the Ecole Polytechnique Fédérale de Lausanne, Switzerland  
2003 Visiting Scientist at the MPI-FKF in Stuttgart, Germany

## Education and Training:

2018 Habilitation in Physics at the University of Stuttgart, Germany; (Mentor: Prof. J. Wrachtrup)  
2003 Ph.D. in Physics at the University of Wisconsin-Madison, USA; (Advisors: Prof. D. L. Huber/Dr. H. Höchst)  
1998 Vordiplom in Physics at the Universität Hamburg, Germany;

## Honors and Awards:

2015 ERC Consolidator Grant 2015  
2007 Emmy-Noether-Research Group  
2004 Emmy-Noether-Scholarship (Phase I)  
2003 Aladdin Lamp Award of the Synchrotron Radiation Center in Stoughton, Wisconsin, USA (best PhD thesis)

## Committees/Positions:

2022 – today Executive Board Member of the Institute of Integrated Quantum Science and Technology (IQ<sup>ST</sup>) Stuttgart-Ulm  
2021 – today Fellow of the Institute of Integrated Quantum Science and Technology (IQ<sup>ST</sup>) Stuttgart-Ulm  
2018 – today Section Representative of the Scientific Staff at the MPI-FKF  
2011 Representative of the Scientific Staff at the MPI-FKF  
2010 Vice-Representative of the Scientific Staff at the MPI-FKF  
2003 – 2004 Student Member of the User Advisory Committee of the Synchrotron Radiation Center

**Research Interests:***Fundamental Phenomena*

quantum limits, magnetism and superconductivity, Josephson effect, quantum electrodynamics, dynamical Coulomb blockade

*Low-Dimensional Systems*

Dirac materials, topological insulators, graphene

*Electronic Structure*

spin-orbit coupling, correlation effects (interactions), disorder

*Experimental Methods*

scanning tunneling microscopy/spectroscopy at lowest temperatures (10 mK), electron spin resonance spectroscopy in combination with scanning tunneling microscopy, angle-resolved and x-ray photoemission spectroscopy