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CURRICULUM VITAE

Dr. Isabelle Philippa Staude

Research Interests: Nanophotonics, Metamaterials, Nanoantennas, Quantum Emitters

Professional Experience

- 10/2016– present **Emmy Noether Research Group Leader**, Institute of Applied Physics, Abbe Center of Photonics, Faculty of Physics and Astronomy, Friedrich Schiller University Jena (FSU), Germany
- 07/2015– 09/2016 **Junior Research Group Leader**, Institute of Applied Physics, Abbe Center of Photonics, Faculty of Physics and Astronomy, Friedrich Schiller University Jena (FSU), Germany
- 10/2013 – 05/2015 **Deputy Project Leader**, Nanoplasmonics Project, ARC Centre of Excellence for Centre for Ultrahigh bandwidth Devices for Optical Systems (CUDOS), Australia
- 01/2013 – 05/2015 **Research Fellow (Level B)**: Nonlinear Physics Centre, Research School of Physics and Engineering, Australian National University (ANU), Australia
05/2013 – 07/2013 Guest scientist (“User”) at the Centre for Integrated Nanotechnologies (CINT), Sandia National Laboratories, Albuquerque, NM, USA
- 10/2011 – 01/2013 **Postdoctoral Fellow (Level A)**: Nonlinear Physics Centre, Research School of Physics and Engineering, Australian National University (ANU), Australia
10/2012 – 11/2012 Guest scientist (“User”) at the Centre for Integrated Nanotechnologies (CINT), Sandia National Laboratories, Albuquerque, NM, USA
- 11/2007 – 09/2011 **Research Assistant**: Institute of Applied Physics, Department of Physics, Karlsruhe Institute of Technology (KIT), Germany
- 07/2005 – 08/2005 **Internship**: Korean Advanced Institute of Science and Technology (KAIST), Deajeon, South Korea
- 01/2002 – 04/2003 **Scientific Coworker**: University of Constance, Germany
- 08/2002 – 09/2002 **Internship**: Institute of Nuclear Physics, Research Centre Jülich, Germany

Education

- 06/2016 – present Habilitation candidate (ongoing)
- 11/2007 – 02/2011 **Dr. rer. nat.** (German Ph.D. equivalent) in Physics:
Institute of Applied Physics, Karlsruhe Institute of Technology (KIT), Germany
Thesis Referees: Prof. Dr. Martin Wegener, Prof. Dr. Kurt Busch
Thesis Title: *“Functional Elements in Three-Dimensional Photonic Bandgap Materials”*
- 07/2008 – 02/2011 **Ph.D. Program in Optics and Photonics** at the Karlsruhe School of Optics and Photonics (KSOP)
- 10/2001 – 09/2007 **Diplom** (German M.Sc. equivalent) in Physics, University of Constance, Germany
Thesis Referees: Prof. Dr. Thomas Dekorsy, Prof. Dr. Georg Maret
Thesis Title: *“Fabrication and characterization of defect cavities in three-dimensional photonic bandgap materials”*
- 10/2002 – 09/2009 **Diplom** (German M.Sc. equivalent) in Business Administration

Fern University Hagen, Germany

Thesis Referees: Prof. Dr. Michael Finus, Prof. Dr. Alfred Endres

10/2003 – 06/2004 **Studies abroad in physics**

University of Pavia, Italy

05/2001

Abitur:

Claus-von-Stauffenberg School, Rodgau, Germany

Publication Summary

Total Number of Publications	160	
	Published/accepted journal articles	45
	Conference talks (only own presentations)	47
	-of which plenary/prize talks	3
	-of which keynote talks	1
	-of which invited conference talks	16
	-of which postdeadline talks	1
	-of which invited full-length lectures	3
	Published conference proceedings/abstracts	35
	Invited seminar/colloquium talks	25
	Other	8
Total Number of Citations	2341 (<i>Google Scholar</i> 10/2017)	
h-index	23 (<i>Google Scholar</i> 10/2017)	

Up-to date citation metrics are available under my Google Scholar profile and Thomson Reuters Researcher ID:

<http://scholar.google.de/citations?user=HPqyVz8AAAAJ&hl=de>

www.researcherid.com/rid/N-4270-2015

Awards

2017	Hertha-Sponer Prize 2017 of the German Physical Society (DPG)
09/2016	Early career women in photonics special recognition by the European Optical Society (EOS)

Successful Grants & Proposals

01/2017	Project (57318347) " <i>High NA lenses with dielectric Huygens metasurfaces</i> " within the India-Germany Joint Research Cooperation Scheme (PPP Indien DST) 2017 of the German Academic Exchange Service (DAAD), Project Manager.
12/2016	Accepted User Proposal (#2016BC0077: <i>High-efficiency Mie-resonant nanostructures for visible frequencies</i>) for CINT, Sandia National Laboratories, USA
11/2016	Project (57318571) " <i>Nonlinear and tunable dielectric metasurfaces</i> " within the Australia-Germany Joint Research Cooperation Scheme (PPP Australien) 2017 of the German Academic Exchange Service (DAAD), Project Manager.
11/2016	Discovery Project " <i>Nonlinear near-field nanophotonics</i> ", funded by the Australian Research Council (ARC), Partner investigator.
08/2016	Coordinator of the research association " <i>Nano-Film</i> " within the funding program " Photonik Plus " of the German Federal Ministry for Education and Research (BMBF) and leader of the associated subproject " <i>Nano-Aktiv</i> "

08/2016	Accepted Rapid Access Proposal (#RA2016A0014: <i>High-efficiency Mie-resonant nanoresonators for visible frequencies</i>) for CINT, Sandia National Laboratories, USA
04/2016	Award of an Emmy-Noether-Grant (DFG) for establishing an independent research group at Friedrich-Schiller-University Jena (STA 1426/2-1: <i>“High-Permittivity All-Dielectric Nanoparticles: A Novel Low-Loss Platform for Nanophotonics”</i>)
07/2015	ACP Explore grant “Integration of Molybdenum Disulfide Monolayers with Photonic Nanostructures” (funded by the Thuringian State Government within its ProExcellence initiative (APC ²⁰²⁰)).
07/2015	DFG grant for a research project within the priority program “Tailored Disorder” (STA 1426/1-1: <i>“Control of scattering interaction in disordered two-dimensional arrangements of silicon nanoparticles”</i>)
01/2015	Award of funding to establish a junior research group on <i>“Functional Photonic Nanostructures”</i> within the ProExcellence initiative (APC ²⁰²⁰) of the Thuringian State Government.
01/2014	Accepted User Proposal (#C2013B0048: <i>All-Dielectric Nanoantennas and Metasurfaces</i>) for CINT, Sandia National Laboratories, USA
09/2012	ANU VC Travel Grant for recent/junior staff
06/2012	Accepted User Proposal (#U2012A0053: <i>Purcell Enhancement by All-Dielectric and Hybrid Nanoantennas</i>) for CINT, Sandia National Laboratories, USA
03/2012	ANU Major Equipment Grant for purchase of an Infrared Microscope
07/2005	Scholarship: Korea Summer Institute Program
10/2003	Scholarship: Direct exchange program of the Universities of Constance (Germany) and Pavia (Italy)

Supervision and Teaching

Teaching

At FSU:

- **Lecturer** *“Introduction to Nanooptics”* WS 2016/17, 2 SWS lectures + 1 SWS tutorials, taught in the international Master of Photonics Program
- **Lecturer** *“Introduction to Nanooptics”* WS 2015/16, 2 SWS lectures + 1 SWS tutorials, taught in the international Master of Photonics Program
- Supervisor of student seminar talks (Oberseminar Optik, SS 2015, SS 2016)
- Research supervision of undergraduate, M.Sc. and PhD students

At ANU:

- **Expert guest lecturer** for Nanophotonics in the ANU *“Optical Physics”* undergraduate course
- Research supervision of undergraduate and PhD students

At KIT:

- Tutor for Experimental Physics 3 (Optics und Thermodynamics)
- Tutor for Experimental Physics 4 (Atoms and Molecules)
- Tutor for Experimental Physics 5 (Solid State Physics)
- Tutor for Experimental Physics 6 (Nuclei and Particles)
- Tutor for Physics I for Engineers and Scientists
- Supervision of lab courses

Service to the Scientific Community & Society Memberships

- Service**
- **Peer reviewer for scientific journals**, e.g., for *Nat. Photonics*, *Nat. Mater.*, *ACS Nano*, *Adv. Mater.*, *Optica*, *Opt. Lett.*, *Opt. Express*, *Sci. Rep.*, *Appl. Phys. Lett.*, *J. Appl. Phys.*, *ACS Photonics*, *APL Photonics*
>50 review reports since 2012
 - **Reviewer for research proposals**, e.g., for the Humboldt Foundation, *CINT*, *Erasmus Mundus*, *COST*
 - **Session chair** e.g. at SPIE Optics + Photonics San Diego 2017, ICCES Conference 2017 (Funchal), SPIE Photonics West 2017 (San Francisco), ICONO-2016 (Minsk), SPIE Micro & Nano Materials, Devices and Applications 2015 (Sydney), PIERS 2015 (Prague), CLEO/Europe-EQEC 2015 (Munich), SPIE Optics+Photonics 2014 (San Diego), AIP/ACOFOT 2012 (Sydney), the 6th Int. Congress on Advanced Electromagnetic Materials in Microwaves and Optics (St. Petersburg)
 - **Equal opportunities officer** of the Abbe Center of Photonics (since 2015)
 - **KSOP ambassador** for Australia (since 2012)
- Conference Organization**
- Sole **Organizer** of an international workshop on Nanoplasmonic Integrated Photodetectors (CUDOS topical workshop series), Australian National University, Canberra, Australia (2014)
 - **Organizer** of a *focus session* at the PIERS conference 2015 in Prague, Czech Republic (Progress in Electromagnetic Research; focus session title: SC3: Optical Properties of Resonant Dielectric and Plasmonic Nanostructures)
 - **Co-Organizer** (ongoing) of Symposium NM9: Novel Approaches and Material Platforms for Plasmonics and Metamaterials, MRS Spring Meeting 2018, organized by V. Babicheva, A. Boltasseva, J. Caldwell and I. Staude
- Professional Societies/ Networks**
- **Member** of the German Physical Society (DPG)
 - **Member** of AcademiaNet

Additional Qualifications

- Technical Skills** Optical spectroscopy, photoluminescence measurements and -microscopy, time-resolved spectroscopy, scanning near-field optical microscopy, electron-beam lithography and alignment techniques, setup and alignment of optical systems, surface functionalization, 3D direct-laser writing, atomic-layer deposition, chemical-vapor deposition, electron-beam deposition, template replication and inversion techniques, extensive clean-room experience, reactive ion-etching techniques, focused ion-beam milling, atomic-force microscopy, scanning-electron microscopy
- IT Skills** MATLAB, CST Microwave Studio, MIT photonic bands, LabVIEW, C, C++, Java
- Languages**
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| German: | mother tongue | Italian: | intermediate |
| English: | excellent | Latin: | Latinum |