

# Anne PEIN

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## EDUCATION

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- AUG 2015 M.Sc. in PHYSICS, **Georg-August-Universität**, Göttingen, Germany  
Final Grade: 1.1 (with distinction)  
Thesis: "Sparsity Constraint for Phase Retrieval in X-Ray Propagation Imaging" | Advisor: Prof. Tim SALDITT
- SEP 2012 B.Sc. in MATHEMATICS, **Westfälische Wilhelms-Universität**, Münster, Germany  
Final Grade: 1.3 (with distinction)  
Thesis: "Global and local hierarchical model reduction for the Poisson problem" | Advisor: Prof. Mario OHLBERGER
- JUN 2008 Abitur, **Max-Planck-Gymnasium**, Delmenhorst, Germany  
Final Grade: 1.1 [best=1.0, worst=6.0]

## PRACTICAL EXPERIENCE

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- JAN 2017- RESEARCH ASSISTANT  
*Research Group on Multiscale and Stochastic Dynamics, Technische Universität München, Munich, Germany*  
PhD student under the supervision of Prof. Christian KUEHN
- JUN-DEC 2016 RESEARCH ASSISTANT  
*Institute for Applied Functional Analysis, Technische Universität Berlin, Berlin, Germany*
- NOV-DEC 2015 VOLUNTARY WORK  
*Huinay Scientific Field Station, Huinay, Chile*  
Marine biology research station focusing on marine environment and ecosystem studies of the chilean fjords
- SEP-OCT 2015 RESEARCH ASSISTANT  
*Institute for X-Ray Physics, Georg-August-Universität, Göttingen, Germany*
- JUN-JUL 2015 RESEARCH INTERNSHIP  
*Institut Langevin, Paris, France*  
Topic: Compressed Sensing for Ultrasonic Imaging | Advisor: Prof. Laurent DAUDET
- AUG 2013 INTERNSHIP  
*German Cancer Research Center, Heidelberg, Germany*  
Topic: Medical Physics in Radiology

## RESEARCH INTERESTS

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Stochastic Analysis, SPDEs | Probability/Measure Theory | Dynamical Systems, PDEs

## CONFERENCES, SCHOOLS & AWARDS

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- JUL 2017 **Summer School: Applied Harmonic Analysis** at the University of Genoa, in Genoa, Italy
- DEC 2016 Workshop: **Young Women in Harmonic Analysis and PDE** in Bonn, Germany
- NOV 2016 **Fall School on PDEs and Probability** at the **African Institute for Mathematical Sciences (AIMS)** in Mbour, Senegal; with travel grant from the **German Academic Exchange Service (DAAD)**
- JUL 2016 **Summer School: Mathematical and Numerical Methods in Image Processing** organized by the **Berlin Mathematical School (BMS)** in Berlin, Germany
- DEC 2015 Award from the **Dr. Berliner-Dr. Ungewitter-Foundation** for an outstanding Master's thesis
- MAR 2015 Poster at the **German Physical Society (DPG)** conference in Berlin, Germany; with travel grant from the **Wilhelm and Else Heraeus Foundation**
- 2013 Scholarship from the **Lower Saxony Ministry of Science and Culture**
- JUN 2008 Award from the **German Physical Society (DPG)** for excellent results during the Abitur

## PUBLICATIONS

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F. Voigtlaender and A. Pein, "Analysis vs. synthesis sparsity for  $\alpha$ -shearlets," arXiv:1702.03559v1 [math.FA] (2017).

A. Pein, S. Loock, G. Plonka, and T. Salditt, "Using Sparsity Information for Iterative Phase Retrieval in X-Ray Propagation Imaging," *Opt. Express* 24, 8332-8343 (2016).

## TEACHING

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- Winter term 2017 Teaching assistant for *Introduction to Nonlinear Dynamics*.  
Summer term 2017 Teaching assistant for *Dynamical Systems*.  
Summer term 2014 *Laboratory course* for first year physics students.

## LANGUAGES

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GERMAN: Native | ENGLISH: Fluent | FRENCH: Intermediate | SPANISH: Intermediate

## MEMBERSHIP

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European Women in Mathematics

## OTHER INTERESTS

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Hiking, Travelling, Literature, Languages, Photography, Card & Board Games, Swimming, Bouldering, Nature and Conservation