

# Anne PEIN

## PERSONAL DATA

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PLACE AND DATE OF BIRTH: Achim, Germany | 14 March 1989  
NATIONALITY: German  
ADDRESS: Vossberg 31, 27749, Delmenhorst, Germany  
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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

2013-15 Studies in PHYSICS, **Georg-August-Universität**, Göttingen, Germany

SEP 2012 B.Sc. in MATHEMATICS, **Westfälische Wilhelms-Universität**, Münster  
Final Grade: 1.3 (with distinction)  
Thesis: “Global and local hierarchical model reduction for the Poisson problem” | Advisor: Prof. Mario OHLBERGER

2009-12 Studies in MATHEMATICS, PHYSICS and MEDICINE, **Westfälische Wilhelms-Universität**, Münster, Germany

2008-09 Studies in PHYSICS, **Universität Bremen**, Bremen, Germany

JUN 2008 German 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*  
Work on  $\alpha$ -shearlets with Dr. Felix VOIGTLAENDER

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 <i>Institut Langevin</i> , Paris, France Topic: Compressed Sensing for Ultrasonic Imaging
MAY-AUG 2014	STUDENT ASSISTANT <i>Georg-August-Universität</i> , Göttingen, Germany Teaching: Laboratory course for first year students
AUG 2013	INTERNSHIP <i>German Cancer Research Center</i> , Heidelberg, Germany Topic: Medical Physics in Radiology

## CONFERENCES, SCHOLARSHIPS AND AWARDS

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

## RESEARCH INTERESTS

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Dynamical Systems, PDEs  
Stochastic  
Functional/Harmonic Analysis  
Numerical Analysis

## 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).

## COMPUTER SKILLS

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Basic Knowledge: R, C++, Python, HTML, Origin, QGIS  
Advanced Knowledge: Matlab,  $\LaTeX$ , Gnuplot, Inkscape, MS Office

## REFERENCES

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Prof. Tim SALDITT (supervisor Master's thesis): tsaldit@gwdg.de  
Prof. Mario OHLBERGER (supervisor Bachelor's thesis): ohlberger@uni-muenster.de  
Prof. Laurent DAUDET (supervisor at Institut Langevin): laurent.daudet@espci.fr

## LANGUAGES

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GERMAN: Mother tongue  
ENGLISH: Fluent  
FRENCH: Intermediate (B2)  
SPANISH: Intermediate (B1)

## INTERESTS AND ACTIVITIES

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Reading, Traveling, Languages, Cooking, Guitar, Photography, Card & Board Games, Hiking, Swimming, Nature and Conservation