# Anne Pein

#### PERSONAL DATA

PLACE AND DATE OF BIRTH: Achim, Germany | 14 March 1989

NATIONALITY: German

ADDRESS: Vossberg 31, 27749, Delmenhorst, Germany

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#### **EDUCATION**

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

JAN 2017- RESEARCH ASSISTANT

Research Group on Multiscale and Stochastic Dynamics, Technische Univer-

sität 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

## CONFERENCES, SCHOLARSHIPS AND AWARDS

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 <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 Lower Saxony Ministry of Science and Culture
Jun 2008	Award from the <b>German Physical Society (DPG)</b> for excellent results during the Abitur

#### **RESEARCH INTERESTS**

Dynamical Systems, PDEs Stochastic Analysis, SPDEs Measure Theory Functional/Harmonic Analysis

#### **PUBLICATIONS**

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**

Summer term 2017 Exercise classes for Dynamical Systems.

Summer term 2014 Laboratory course for first year physics students.

#### COMPUTER SKILLS

Basic Knowledge: R, C++, Python, HTML, Origin, QGIS

Advanced Knowledge: Matlab, LTEX, Gnuplot, Inkscape, MS Office

## **LANGUAGES**

GERMAN: Mother tongue

ENGLISH: Fluent

FRENCH: Intermediate (B2)
SPANISH: Intermediate (B1)

## **MEMBERSHIP**

European Women in Mathematics

## **INTERESTS AND ACTIVITIES**

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