

# Peter Nicholas Krämer

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📅 January 30, 2019

## RESEARCH INTERESTS

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Uncertainty quantification, Bayesian computations, probabilistic numerics

## EDUCATION

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### MSc Mathematics Oct 2016 – Present

*University of Bonn*

Thesis: Gaussian Processes and Uncertainty Quantification

Thesis supervisor: Priv.-Doz. Dr. Christian Rieger

Expected graduation: May 2019

### BSc Mathematics in Business and Economics Sep 2013 – Jun 2016

*University of Mannheim*

Thesis: Numerisches Lösen von Eigenwertproblemen (German; English title: Numerical Solution of Eigenvalue Problems)

Thesis supervisor: Prof. Dr. Oliver Kolb

### Higher Education Entrance Qualification Sep 2004 – Jun 2013

*Carl-Fuhlrott-Gymnasium Wuppertal*

Advanced courses: Mathematics, Social science, Spanish, English

## RESEARCH AND TEACHING EXPERIENCE

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### Part-time research assistant Sep 2017 – Present

*Institute for Numerical Simulation, University of Bonn*

Area: scattered data approximation, programming

Supervisor: Priv.-Doz. Dr. Christian Rieger

### Tutor for Analysis for Computer Scientists Mar 2017 – Sep 2017

*University of Bonn*

Exercise classes and marking of ~25 exercise sheets (weekly), marking of the final exams

### Tutor for Linear Algebra II Jan 2016 – May 2016

*University of Mannheim*

Exercise classes and marking of ~25 exercise sheets (weekly)

### Tutor for Linear Algebra I Sep 2015 – Jan 2016

*University of Mannheim*

Exercise classes and marking of ~25 exercise sheets (weekly)

## INTERNSHIPS

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### Management Consultancy Jun 2016 – Aug 2016

*avantum consult AG*

*Düsseldorf, Germany*

Performance Improvement & Transformation

### Accountancy/Consultancy Jun 2015 – Jul 2015

*RINKE Treuhand GmbH Wirtschaftsprüfungsgesellschaft Steuerberatungsgesellschaft*

*Wuppertal, Germany*

Financial Reporting and Planning

## SKILLS

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### Programming

Python, MATLAB, C/C++

*Good knowledge*

R, Visual Basic for Applications (VBA), Latex, Git, ssh, bash, makefiles, html, css

*Basic knowledge*

### Languages

German, English

*Proficient*

Spanish

*Basic knowledge*

## GRADUATE COURSES

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### Numerical Mathematics

Scientific Computing I

Numerical Algorithms

Numerical Simulation: Optimal Control and Reinforcement Learning

Practical Lab in Computational Finance

Numerical Methods in Uncertainty

Quantification

Optimisation (in Mannheim)

### Analysis

Functional Analysis and Partial Differential Equations

Nonlinear Partial Differential Equations II

Global Analysis

Dynamical Systems (in Mannheim)

Functional Analysis (in Mannheim)

### Probability

Introduction to Stochastic Analysis

Stochastic Simulation (in Mannheim)

Financial Mathematics (in Mannheim)

### Graduate Seminars

Numerical Methods in Statistical Simulation and Machine Learning

Shape Spaces and Shape Representations

High-Dimensional Approximation and

Uncertainty Quantification

## ATTENDED EVENTS

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### Winter school on hierarchical matrices

*Kiel University*

**Feb 2018 – Mar 2018**

*Kiel, Germany*

### Minicourse on the Navier-Stokes equations

*Institute of Mathematics of the Czech Academy of Sciences*

**Feb 2018**

*Prague, Czech Republic*

### Summer school on mathematical modeling in the life sciences

*Centro De Giorgi*

**Sep 2017**

*Pisa, Italy*

## SELECTED TALKS

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### Gaussian process approximations in Bayesian inverse problems

*Institute for Numerical Simulation, University of Bonn*

Post-graduate seminar

**Dec 2018**

### H2Lib – A short introduction

*Institute for Numerical Simulation, University of Bonn*

Post-graduate seminar

**May 2018**

## MEMBERSHIPS

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### Society for Industrial and Applied Mathematics (SIAM)

**Mar 2017 – Present**

## ACADEMIC REFERENCES

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### Priv.-Doz. Dr. Christian Rieger

Institute for Numerical Simulation

University of Bonn

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53115 Bonn

Email: [riege@ins.uni-bonn.de](mailto:riege@ins.uni-bonn.de)

### Prof. Thomas Hangelbroek

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