Maximilian Bernkopf

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Austria
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Education

09.2017– current **PhD candidate**, TU Wien.
- Supervisor: Prof. Jens Markus Melenk, PhD

11.2015– 06.2016 **Dipl.-Ing.(equivalent MSc) in Financial and Actuarial Mathematics**, TU Wien.
- Master thesis: "Analysis of the alpha-hypergeometric stochastic volatility model"
- Supervisor: Prof. Dr. Stefan Gerhold

07.2011– 11.2015 **BSc in Financial and Actuarial Mathematics**, TU Wien.

10.2002– 06.2010 **Matura (High school graduation equivalent)**, Schottengymnasium, Vienna, Austria.

Employment

09.2016– 09.2017 **Data Scientist**, IntraBase, Vienna, Austria.
Focus on Statistical Learning

08.2016– 06.2017 **Data Scientist**, Mantigma, Vienna, Austria.
Focus on Time Series Analysis

10.2015– 06.2016 **Research Assistant**, Research Unit of Financial and Actuarial Mathematics, TU Wien.
Focus on Credit Risk Models

09.2013– 12.2013 **Internship**, FMA Finanzmarktaufsicht Österreich, Vienna, Austria.
Focus on Solvency II

12.2010– 08.2011 **Community Service**, Arbeiter-Samariter-Bund, Vienna, Austria.

Publications

2021 Bernkopf, M., T. Chaumont-Frelet, and J. M. Melenk (2021). *Wavenumber-explicit stability and convergence analysis of hp Finite Element discretizations of Helmholtz problems in piecewise smooth media, in preparation*.

2021 Bernkopf, M. and J. M. Melenk (2021). *Optimal convergence rates in L^2 for a first order system least squares finite element method. Part II: inhomogeneous boundary conditions, in preparation*.

2020 Bernkopf, M. and J. M. Melenk (2020). *Optimal convergence rates in L^2 for a first order system least squares finite element method. Part I: homogeneous boundary conditions, submitted*. arXiv e-prints arXiv:2012.12919. URL: `https://arxiv.org/pdf/2012.12919`.

2019 Bernkopf, M. and J. M. Melenk (2019). "Analysis of the hp-Version of a First Order System Least Squares Method for the Helmholtz Equation". In: *Advanced Finite Element Methods with Applications: Selected Papers from the 30th Chemnitz Finite Element Symposium 2017*. Ed. by Thomas Apel et al. Cham: Springer International Publishing, pp. 57–84. ISBN: 978-3-030-14244-5. DOI: 10.1007/978-3-030-14244-5_4.

Teaching

03.2021–current **Tutor**, Institute of Analysis and Scientific Computing, TU Wien.
Analysis 1

10.2018–02.2019 **Seminar Instructor**, Institute of Analysis and Scientific Computing, TU Wien.
Seminar on uncertainty quantification and approximation theory of neural networks

10.2018–02.2018 **Seminar Instructor**, Institute of Analysis and Scientific Computing, TU Wien.
Seminar on inverse problems

10.2017–02.2018 **Tutor**, Institute of Analysis and Scientific Computing, TU Wien.
Analysis 1 - 3

03.2016–07.2016 **Tutor**, Institute of Analysis and Scientific Computing, TU Wien.
Computer Mathematics

03.2015–07.2015 **Tutor**, Institute of Analysis and Scientific Computing, TU Wien.
Computer Mathematics