# Lucas M. Fix

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Personal Webpage

### **Employment**

since Nov. 2024 Research Assistant (Chair of Applied Analysis at the University of Augsburg),

working on analytical homogenisation in thin domains with evolving microstructure and the derivation of effective transmission conditions.

Sep. 2024 – Oct. 2024 Research Assistant (Department for Analysis and Mathematical Modelling at Heidelberg University),

assisting the preparation of the lecture Calculus of Variations.

Apr. 2023 – Jul. 2024 **Teaching Assistant** (Department for Analysis and Mathematical Modelling at Heidelberg University),

assisting the lectures Partial Differential Equations and Calculus of Variations 2.

Oct. 2021 – Mar. 2023 **Student Assistant** (Heidelberg University),

leading tutorials for the lectures Analysis 1, Analysis 2, and Higher Analysis.

Oct. 2020 – Mar. 2021 Student Assistant (Heidelberg University), leading tutorials for the lecture *Analysis 1*.

#### **Education**

since Nov. 2024 **Doctoral Candidate** in Mathematics at the University of Augsburg, Supervisor: Prof. Dr. M. A. Peter.

Oct. 2021 – Sep. 2024 M.Sc. in Mathematics, Heidelberg University.

• Thesis title: Elliptic Regularity Theory for the Robin Laplacian on Domains with an Exterior Cusp,

Supervisor: Prof. Dr. H. Knüpfer.

• Specialisations: Applied analysis, especially partial differential equations and calculus of variations.

Oct. 2017 – Sep. 2021 **B.Sc. in Physics, Heidelberg University**.

• Thesis title: Nonlinear Electrodynamics and its Applications in Cosmology,

Supervisor: Prof. Dr. M. Bartelmann.

• Specialisations: Theoretical physics and astrophysics.

Jun. 2017 Abitur, Gymnasium Neuenbürg

#### **Memberships**

Aug. 2023 – Oct. 2024 Member of the Young Researchers Convent, a subgroup of the STRUCTURES Cluster of Excellence.

Jan. 2023 – Oct. 2024 | Participation in the PhD Discussion Group,

a regular meeting of postdocs, PhD and master's students from the applied analysis groups at Heidelberg University to discuss their research.

## **Invited Talks**

Jul. 2024 Technical University Dortmund, Oberseminar Angewandte Analysis
University of Augsburg, Oberseminar Mathematische Modellierung und partielle
Differentialgleichungen

#### Workshops

Nov. 2024	Fluid flow and reactive transport in porous media, workshop at the Math-
	ematical Institute for Machine Learning and Data Science (MIDS) of the KU
	Eichstätt-Ingolstadt.

Jun. 2024 Conference on Calculus of Variations in Lille - 4th edition, workshop at Laboratoire Paul Painlevé, Université de Lille.

Apr. 2023 Compact course "The gradient flow structure of mean curvature flow", given by STRUCTURES guest Prof. Dr. T. Laux at Heidelberg University.