

Niklas Reinhardt

Curriculum Vitae

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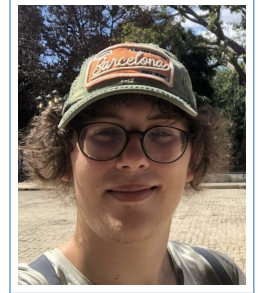
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📄 NiklasReinhardt99

Date of birth: 19.10.1999

Place of birth: Nagold

Nationality: German citizen



Education

- 01/2024– **PhD**, *Heidelberg University*, Topic: Statistical Learning in Infinite Dimensions, Supervisors: Jakob Zech (Heidelberg University), Sven Wang (EPFL).
- 03/2021–10/2023 **M. Sc. Mathematics**, *Heidelberg University*, Final grade: 1.0
- 03/2021–06/2023 **M. Sc. Physics**, *Heidelberg University*, Final grade: 1.0
- 04/2018–02/2021 **B. Sc. Mathematics**, *KIT*, Karlsruhe, Final grade: 1.1
- 10/2017–02/2021 **B. Sc. Physics**, *KIT*, Karlsruhe, Final grade: 1.1
- 10/2015–07/2017 **Gymnasium**, *Otto-Hahn-Gymnasium*, Nagold, Final grade: 1.0

Projects

- 03/2026– **PhD Project**, *Expressivity of Bayesian Neural Networks*, Analyzing approximation properties of Bayesian Neural Networks in function space.
- 01/2025– **PhD Project**, *Bayesian Operator Learning*, Development of a Bayesian operator learning framework with Python implementation for learning parameter-dependent PDEs.
- 01/2024–12/2024 **PhD Project**, *Statistical Learning Theory for Operator Learning*, Theoretical analysis of sample complexity for neural operator architectures.
- 12/2022–10/2023 **Master's Thesis**, *Open-loop stable solutions of a two-legged robot around the standing position*, Solution of multi-phase optimal control problems and stability optimization for a robot model.
- 02/2022–06/2023 **Master's Thesis**, *Implementation of Modified Gravity Theories with Screening Effects into KFT*, Development and implementation of numerical methods in Python/C++ to evaluate power spectra of modified gravity theories with screening effects.

Teaching and Mentorship

- 2024– **Head Tutor**, Teaching assistant for master's-level courses “Theory of Deep Learning” (WS 2024/25) and “High-Dimensional Numerics” (WS 2025/26).
- 2024– **Student Mentoring**, Supervision of several Bachelor's and Master's theses.

Publications and Preprints

- 06/2025 **Kinetic field theory: effects of modified gravity theories with screening mechanisms on non-linear cosmic density fluctuations**, *JCAP*.
- 12/2024 **Statistical learning theory for neural operators**, *Accepted by JMLR*, awaiting publication.