

April Herwig

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Education

Technical University Munich (TUM)

PhD. Applied Mathematics

Oct 2025 – current

- **Coursework:** Foundations of Computation in Dynamical Systems

M.Sc. Mathematics

Oct 2022 – Apr 2025

- High distinction
- **Coursework:** Resolvent-based methods for robust spectral analysis of Koopman operators

B.Sc. Mathematics

Oct 2018 – Sep 2022

- **Coursework:** Global Analysis of Invariant Objects in dynamical systems

Talks

International Symposium on Mathematical Theory of Networks and Systems, Toronto

Aug 2026

- Exploiting Nonlinearity in Transfer Operator Approaches to Achieve more Robust Data-Driven Predictors

10th European Congress on Computational Methods in Applied Sciences and Engineering, Munich

Jul 2026

- Koopman and Transfer Operator Spectra from Data: No Pollution, No Invisibility

SIAM Nonlinear Waves and Coherent Structures (NWCS26), Montreal

May 2026

- The Limits and Possibilities of Koopman Operator Learning

Corpus Christi & Clare College, Cambridge

Mar 2026

- Hidden Order: Coherence and Structure in Chaotic Systems

SIAM Applications of Dynamical Systems (DS25), Denver, CO

Mar 2025

- On the Subtle Importance of Function Spaces in Koopman Eigenmode Decompositions

The Hong Kong Polytechnic University

Aug 2024

- Mathematical cancer research; optimal control of PARP inhibitor administration in ovarian cancer

11th International Conference on the Julia Programming Language

Jul 2024

- Fast, elegant, set-oriented numerical analysis using Julia ([recording](#))

Universität Bayreuth

Mar 2024

- Pseudospectra and applications to validated computational dynamics ([slides](#))

SIAM Conference on Dynamical Systems (DS23 - Oregon)

May 2023

- Set-oriented numerical analysis with GAIO.jl

Research Seminar Computational Dynamics, Munich

Mar 2023

- On the Determinants of Trace-class Operators: Lidskii's Theorem and Applications

9th International Conference on Set-Oriented Numerics

Oct 2022

- GAIO - 25 years later

References

Prof. Matthew Colbrook

Cambridge

Prof. Oliver Junge

TUM

Prof. Martin Rasmussen

Imperial College London

Alexander Bogensperger

German Research Institute for Energy Economics (FfE)

Prof. Caroline Lasser

TUM

Prof. Gero Friesecke

TUM