

Jan Tauberschmidt

Curriculum Vitae

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[GitHub](#) ■ [Google Scholar](#) ■ [arXiv](#) ■ [OpenReview](#) ■ [LinkedIn](#)



Education

- since 2025 **Ph.D. Student, RPTU Kaiserslautern**
Supervised by Prof. Sebastian J. Vollmer
- 10/2022–12/2024 **M.Sc. Mathematics, RPTU Kaiserslautern**
Specialization Systems and Control, average grade: 1.0
Thesis: A Domain-informed Reinforcement Learning Race Driver Model
- 10/2018–03/2023 **B.Sc. Mathematics, TU Kaiserslautern**
Specialization Industrial Mathematics, average grade: 1.6
Thesis: Model-based torque control of an electric all-wheel driven race car
- 09/2010–06/2018 **High School (Abitur), Erasmus-Widmann-Gymnasium**
Schwäbisch Hall, average grade: 1.0

Practical Experience

- since 11/2024 **Researcher at DFKI**
Department Data Science and its Applications
- 04/2024–10/2024 **Master Thesis Student at Porsche Motorsport**
Application and Evaluation of a Reinforcement Learning Race Driver Model
- 09/2023–03/2024 **Research Assistant at DFKI**
Spatio-temporal anomaly detection, department Data Science and its Applications
- 09/2022–10/2023 **Research Assistant at Fraunhofer ITWM**
Department for system analysis, prediction and control
- 03/2022–09/2022 **Internship at Porsche Motorsport**
Toolchain development for vehicle science (LDMh and Formula-E racing series)
- 10/2018–10/2020 **Felix-Klein Modeling Weeks, Fraunhofer ITWM**
Topics: 10/2018: Quantification of uncertainties in district heating networks; 10/2019: Simulation and parameter analysis in thermal ablation of tumors; 10/2020: Analysis of stitching patterns in the production of nonwovens

Voluntary Work - University

- 09/2020–09/2021 **1. Chairman - KaRaT**
Formula Student project and team leader, financial planning, technical director mechanics
- since 11/2019 **Formula Student Electric Team Member, Kaiserslautern Racing Team - KaRaT e.V., TU Kaiserslautern**

Voluntary Work - School

- 09/2016–06/2018 **Mentor Representative**
Organization of mentorship program, management of school internal tutoring
- 09/2015–09/2017 **Student Representative**
Representation of the student body, member of the school conference, coordination of sub-groups
- 09/2012–06/2018 **Mentor**
Homework assistance, specific support for younger students within the framework of a learning workshop

Awards

- 10/2018–09/2020 **Felix-Klein-Scholarship for Mathematicians**
Fraunhofer ITWM and Department of Mathematics Kaiserslautern
- 06/2018 **Certificate of Outstanding Scholastic Commitment**
Given by Ralph Schröder, school director of Erasmus-Widman-Gymnasium
- 06/2017 & 06/2018 **Awards for Social Behaviour**
For exceptional social contribution in the two final years
- 06/2018 **A-Level Award for Mathematics**
For outstanding performance in the final exam in mathematics
- 06/2018 **Other A-Level Awards**
Awards for year's best performance: German, Physics, Latin, Social Studies, Music

Languages

German	Native
English	Advanced
Spanish	Three years in school
Latin	Seven years in school (<i>großes Latinum</i>)

Publications

- 2026 **Physics-Constrained Fine-Tuning of Flow-Matching Models for Generation and Inverse Problems**
Jan Tauberschmidt, Sophie Fellenz, Sebastian J. Vollmer, and Andrew B. Duncan.
International Conference on Learning Representations (ICLR), 2026.
- 2026 **Heavy-tailed Physics-Informed Neural Networks**
Jephte Abijuru, Mayank Nagda, Phil Ostheimer, Jan Tauberschmidt, Sebastian J. Vollmer, Stephan Mandt, Marius Kloft, and Sophie Fellenz.
International Conference on Machine Learning (ICML), 2026.
- 2026 **Behavior-Constrained Reinforcement Learning with Receding-Horizon Credit Assignment for High-Performance Control**
Siwei Ju, Jan Tauberschmidt, Oleg Arenz, Peter van Vliet, and Jan Peters.
arXiv preprint arXiv:2604.03023, 2026.