Klaus Mattis

Curriculum Vitae

Research Interests

Motivic Homotopy Theory
Higher Categories
Algebraic K-Theory

Education

2023– **PhD in Mathematics**, *JGU Mainz*, Mainz, Germany
Advisor: Tom Bachmann

2022 **MSc in Mathematics (Grade: 1.0)**, *LMU Munich*, Thesis: *Isomotives of Dimension at most 1*
Advisor: Fabien Morel

2021 **BSc in Mathematics**, *LMU Munich*, Thesis: *Examples of étale (φ, Γ)-modules*
Advisor: Werner Bley

2017–2022 **Studies in Mathematics**, *LMU Munich*

2017 **Abitur**, *Gymnasium Oberhaching*

Preprints

2024 **The derived ∞-category of Cartier Modules**, *(with Timo Weiß)*, preprint, arXiv:2410.1710

2024 **Unstable arithmetic fracture squares in ∞-topoi**, preprint, arXiv:2404.18618

2024 **The pro-Nisnevich topology**, preprint, arXiv:2404.17314

2024 **Unstable p-completion in motivic homotopy theory**, preprint, arXiv:2401.17848

Talks

February 2024 *Unstable p-completion in motivic homotopy theory*, YoungHom Seminar (online)

June 2024 *Proof of the Hopkins-Morel-Hoyois theorem*, International Workshop on Algebraic Topology (Shanghai)

Academic Service

March 2024 Co-organizer, *Winter school on unstable motivic homotopy theory*, JGU Mainz

January 2025 Organizer, *GAUS Junior AG on "Maps between spherical group rings"*, JGU Mainz

Teaching Experience

ST 25 **Organizer**, *PhD-Seminar*, JGU Mainz

WT 24/25 **Teaching Assistant**, *Math for Computer Science 1*, JGU Mainz

WT 24/25	**Organizer**, *PhD-Seminar*, JGU Mainz
ST 24	**Organizer**, *PhD-Seminar*, JGU Mainz
ST 24	**Lecturer (1/3 of the course)**, *Algebraic Topology I*, JGU Mainz
WT 23/24	**Teaching Assistant**, *Math for Computer Science 2b*, JGU Mainz
WT 23/24	**Organizer**, *PhD-Seminar*, JGU Mainz
ST 23	**Teaching Assistant**, *Elementary Differential Geometry*, JGU Mainz
ST 21	**Tutor**, *Commutative Algebra*, LMU Munich
WT 20/21	**Tutor**, *Algebra*, LMU Munich
ST 20	**Organizer**, *Reading Class on Category Theory*, LMU Munich
ST 20	**Tutor**, *Linear Algebra 2*, LMU Munich
WT 19/20	**Tutor**, *Linear Algebra 1*, LMU Munich

Non-academic Service

2016–present	**Volunteer**, *Red Cross, KV München*
2016–2023	**Software Developer**, *Microstep AG*
2019–2020	**Volunteer Author**, *Serlo Hochschulmathematik*, Open-source platform supporting struggling students