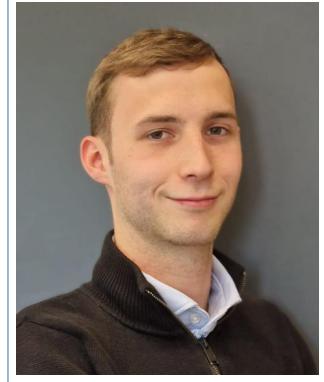


Aaron Kreis

M.Sc. Physics Candidate
Expected 2027

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Experimental Physics · Optical Imaging · Scientific Computing

Research Experience

- 10/2025 **Bachelor Thesis – Light Ray Propagation in Microscopic Imaging of Red Blood Cells, Dynamics of Fluids Group – Prof. Christian Wagner — Saarland University**
- Developed ray tracing simulations to model light propagation in microscopic imaging
 - Simulated optical interactions with rotationally symmetric biological structures
 - Performed quantitative intensity analysis on the detector plane
 - Designed a computational workflow for reproducible microscopy simulations

Awards & Grants

- 2025 – 2026 **Glückauf Scholarship – RAG-Stiftung**
- 03/2025 **Travel Grant – DPG Spring Meeting (SKM) — WE Heraeus-Stiftung**

Technical Skills

- Programming Python, MATLAB
- Engineering CAD, 3D printing
- Tools L^AT_EX, Git, Linux

Education

- 2025 – 2027 **M.Sc. Physics (Double Degree)** — Université Grenoble Alpes
(expected)
- 2021 – 2025 **B.Sc. Physics** — Saarland University
- 2013 – 2021 **AbiBac** — Warndt-Gymnasium

Teaching Experience

- 2023 – 2025 **Instructor (independently taught)** — Saarland University
- Summer School “From Atoms to Zettabytes” for STEM-oriented pre-university students
 - Mathematics Preparatory Course for incoming undergraduate students
- 2022 – 2025 **Teaching Assistant for Undergraduate Physics Courses** — Saarland University
- Led problem-solving sessions accompanying undergraduate lectures
 - Guided students in experimental methods, data analysis, and scientific reporting
 - Supervised laboratory courses and tutorial sessions in mechanics, electromagnetism, and computational physics

Academic Service & Leadership

- 2024 – 2025 **Founding Deputy Chair** — jDPG Regional Group Saarbrücken — German Physical Society
- 2022 – present **Student Representative** — Saarland University
Examination Board (B.Sc./M.Sc. Physics); Appointment Committees; Faculty Council
- 2024 **External Review Panel Member** — B.Sc. Physics Program — University of Luxembourg
- 2025 – present **Vice President for Partnerships** — PhITEM Student Council — Université Grenoble Alpes
- 2023 – present **Member**, German Physical Society (DPG)

Employment

- 2022 – present **Student Assistant – Physics Outreach** — Department of Physics – Saarland University
 - Designed and delivered physics demonstrations for school visits, career fairs, and public events
 - Represented the department in student recruitment initiatives
- 2021 – 2023 **Student Assistant – Process Automation** — DEKRA Automobil GmbH
 - Developed automation workflows to streamline administrative processes across multiple departments
 - Reduced manual workload by optimizing repetitive tasks

Languages

German Native

English B2

French B2