KONRAD WEHKAMP
CURRICULUM VITAE

PROFILE

Master's student in Physics and Technology for Space Applications with a strong focus on propulsion testing, experimental research, and hardware-oriented development in laboratory environments.

LANGUAGE SKILLS

German: native speaker **C2**

English: fluent **C1**

French: basic knowledge **B1**

IT SKILLS

Python: advanced

C++: intermediate

LabVIEW: intermediate

CAD (Inventor): intermediate

MS Office / LaTeX / Origin: advanced

GitHub: github.com/konradweh

INTERESTS

Creative projects (electronics, 3D printing, woodworking)

Field hockey and Bouldering

VOLUNTEER EXPERIENCE

Coach and organizer of an inclusive hockey team for athletes with disabilities since 2021.

C-level coaching license, responsibility for training and team development.

EDUCATION

Justus Liebig University Giessen
M.Sc. Physics and Technology for Space Applications
Focus on spacecraft propulsion, plasma physics, and space systems engineering
04.2025 – present (parallel enrollment)

Justus Liebig University Giessen
B.Sc. Physics and Technology for Space Applications
Final grade: 1.9
Bachelor's thesis: Emittance measurements on reference ion sources for electric propulsion characterization (Ref4EP project)
Hands-on work with ion sources, beam diagnostics, and performance evaluation methods
10.2021 – 04.2026

Karl-Rehbein-Gymnasium Hanau
German university entrance qualification, grade: 1.7
Honors for outstanding achievement in Physics
07.2021

RELEVANT PROJECTS & EXPERIENCE

GSI HELMHOLTZ CENTRE FOR HEAVY ION RESEARCH

Internship
Designed and integrated a cooling solution for analogue electronics used in the SHIPTRAP
Supported the integration and operation of experimental hardware in a high-vacuum and radiation-exposed environment
Performed hands-on assembly, maintenance, and troubleshooting of experimental components, including work on the electron gun at the target area
07.2025 – 10.2025

ION THRUSTER RESEARCH GROUP – JLU GIESSEN

Student Researcher
Conducted plasma measurements and diagnostics in the context of electric propulsion research
Supported experimental investigations using THz time-domain spectroscopy (THz-TDS)
04.2023 – 10.2023

Project Work
Developed a global Python-based model for multi-species plasmas in a small team
Used the model to study plasma behavior relevant to electric propulsion systems
10.2024 – 04.2026

Project Work
Developed a Python-based simulation of atmospheric reentry for different space vehicles
Modeled key physical effects including aerodynamic forces, thermal loads, and flight dynamics
10.2025 – 04.2026