

# KONRAD WEHKAMP

## CURRICULUM VITAE



### PROFILE

Master's student in Physics and Technology for Space Applications specializing in spacecraft propulsion, with hands-on experience in ion thruster characterization, plasma simulation, and experimental research.

### 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

### INTERESTS

Field hockey and Bouldering

Creative projects (electronics, 3D printing, woodworking)

### 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

10.2021 – 04.2026

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

#### 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

Work on the SHIPTRAP experiment, including the design of a cooling system for analogue components

07.2025 – 10.2025

#### ION THRUSTER RESEARCH GROUP – JLU GIESSEN

##### Student Researcher

Conducted plasma measurements and diagnostics in the context of electric propulsion research

04.2023 – 10.2023

Supported experimental investigations using THz time-domain spectroscopy (THz-TDS)

Gained experience in laboratory workflows, data evaluation, and experimental validation

##### Project Work

Developed a global Python-based model for multi-species plasmas

10.2024 – 04.2026

Used the model to study plasma behavior relevant to electric propulsion systems

Strengthened skills in numerical modeling, validation and scientific programming

##### Project Work

Developed a Python-based simulation of atmospheric reentry for different space vehicles

10.2025 – 04.2026

Modeled key physical effects including aerodynamic forces, thermal loads, and flight dynamics

Strengthened skills in multi-physics modeling, numerical methods and scientific programming