

# JOHANNES PORSCH

Munich

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## EDUCATION

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Physics M.Sc., Federal Institute of Technology Zurich	10.2024 - 09.2026
<ul style="list-style-type: none"><li>Expected courses: Quantum Field Theory, Ultrafast Laser Physics</li></ul>	
Physics B.Sc., Ludwig-Maximilian-University of Munich	10.2022 - 08.2025
<ul style="list-style-type: none"><li>Elective courses: Advanced Programming techniques, Computational Physics/Machine Learning, Programming with Python, Astrophysics II, General Relativity*<sup>1</sup>, Cosmology and large scale structures*</li><li>Bachelor thesis: <i>The Impact of the Dynamic Stark Shift on Sub-cycle Ionization of Atoms in the Multiphoton Regime</i></li></ul>	
Mathematics B.Sc. <sup>2</sup> , Ludwig-Maximilian-University of Munich	10.2023 - 08.2025
<ul style="list-style-type: none"><li>Attended courses: Analysis I-III*, Linear Algebra I, Numerical Mathematics, ODE*, PDE*, Complex Analysis</li></ul>	
Abitur Thomas-Strittmatter-Gymnasium St. Georgen	10.2014 - 07.2022
<ul style="list-style-type: none"><li>DMV and DPG Abitur award</li></ul>	

## PRACTICAL EXPERIENCE

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Bachelor thesis at Max Planck Institute of Quantum Optics	03.2025 - 07.2025
<ul style="list-style-type: none"><li>Topic: <i>The Impact of the Dynamic Stark Shift on Sub-cycle Ionization of Atoms in the Multiphoton Regime</i></li><li>Focus on the influence of excited states on the ionization dynamics of atoms in strong laser fields</li><li>Experience with Python, C++, Mathematica</li></ul>	
Tutor for Physics and Mathematics at LMU Munich	09.2024 - 02.2025
<ul style="list-style-type: none"><li>Tutor for the courses Mathematical Methods for Physicists and <i>Mathematical preparation for Physicists</i></li><li>Preparing and holding tutorials for approx. 20 students (including grading of exercises)</li></ul>	
Research Assistant at Max Planck Institute of Quantum Optics	05.2024 – 08.2024
<ul style="list-style-type: none"><li>Assisted in attosecond spectroscopy and theoretical strong field physics research, focusing on the reconstruction of strong-field ionization dynamics from numerically determined ionization probabilities</li><li>Utilized the C++ programm <i>tRecX</i> for simulating and solving time-dependent partial differential equations, including convergence testing</li><li>Compared theoretical models implemented in Python with simulated data, using sampling method <i>TIPTOE</i></li><li>Expected co-authorship of a publication based on research results</li></ul>	
Study-related physics internship at LMU Munich	02.2023 - 08.2024
<ul style="list-style-type: none"><li>Topics: Quantum Mechanics, Optics and Lasers, Mechanics, Experience with Python, C++, Matlab, Mathematica</li></ul>	

## SKILLS

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<b>Computer</b>	Python (pandas, plotly, scipy, numpy), C++, git, Mathematica, Linux, Numerical Simulations
<b>Languages</b>	English (TOEFL C1), German (Native), French (B1)

## INTERESTS

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<b>Music</b>	Saxophone, Clarinet and Guitar
<b>Sports</b>	Fitness, table tennis, jogging, tango argentino

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<sup>1</sup>Courses marked with \*: Coursework including excercises completed, examinations were either not attempted, or not passed.

<sup>2</sup>Not completed, withdrawn after the 4th semester