

Otto T. P. Schmidt

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PERSONAL

Full Name: Otto Theodor Primus Schmidt

Citizenship: German

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EDUCATION

Marie Skłodowska-Curie Doctoral Fellowship

MSCA joint PhD program in Mathematics and Physics

Europe

November 2024 -

- Title: Geometry of tensor network varieties for quantum condensed matter physics
- Supervision: Iacopo Carusotto (INO-BEC), Simon Telen (MPI MIS), Shane Mansfield (Quandela)

Imperial College London

Postgraduate Studies, Master Thesis

London, GB

March 2024 - Okt. 2024

- Optical Quantum Memory DRAGON
- Supervision: Ian Walmsley, Tilman Esslinger

ETH Zürich

M.Sc. in Quantum Engineering

Zurich, Switzerland

Sept. 2022 - 2024

- Focus on Quantum Optics, Quantum Information Theory, Quantum Many-Body Systems

ETH Zürich

B.Sc. in Physics

Zurich, Switzerland

Sept. 2019 - Aug. 2022

Korea University

B.Sc. in Economics, PROMOS stipend from DAAD

Seoul, South Korea

Sept. 2018 - Jan. 2019

University of Mannheim

B.Sc. in Mathematical Economics

Mannheim, Germany

Sept. 2016 - Sept. 2019

Humanistic Lessing Gymnasium Frankfurt

Abitur

Frankfurt, Germany

2010 - 2015

EXPERIENCE

Research Assistant

ETH Zürich

June 2023 – July 2023

Zurich, Switzerland

- Full time RA in the group of Andreas Wallraff
- Testing and installation of qubit control at the Quantum Computing Hub PSI

Economic Research Assistant

ETH Zürich, KOF

Jan. 2023 – Dez. 2023

Zurich, Switzerland

- Mathematical proof correction of draft articles
- Direct work for Prof. Hans Gersbach

Undergraduate Teaching Assistant

ETH Zürich

Sept. 2022 – Jan 2023

Zurich, Switzerland

- Teaching of a class of thirty in introductory quantum mechanics and statistical physics
- Supervision of undergraduate physics students

Internship

ETH Zürich

June 2022 - July 2022

Zürich, Switzerland

- Software transition of measurement system to Python in group of Andreas Wallraff
- Design of superconducting qubit and simulation

Undergraduate Teaching Assistant

ETH Zürich

Sept. 2021 – Jan 2022

Zurich, Switzerland

- Teaching of a class of twenty-five in introductory quantum mechanics

<ul style="list-style-type: none"> • Supervision of undergraduate physics students 	
Undergraduate Teaching Assistant	Feb. 2019 – July 2019
<i>University of Mannheim</i>	<i>Mannheim, Germany</i>
<ul style="list-style-type: none"> • Teaching of a class of twenty in microeconomics • Supervision of undergraduate economic students 	
Undergraduate Research Assistant	Jan. 2018 – July 2018
<i>University of Mannheim</i>	<i>Mannheim, Germany</i>
<ul style="list-style-type: none"> • Development and improvement of a lecture in macroeconomics • Support of the Macroeconomics Chair of Tom Krebs • Maintenance of the teaching portal ILIAS for the macroeconomics course 	
Undergraduate Teaching Assistant	Sept. 2017 – April 2018
<i>University of Mannheim</i>	<i>Mannheim, Germany</i>
<ul style="list-style-type: none"> • Teaching of a class of twenty in mathematical methods for economists • Supervision of undergraduate economic students 	
Scientific Assistant	Okt. 2016 – July 2018
<i>mLab, Mannheim Laboratory for Experimental Economics</i>	<i>Mannheim, Germany</i>
<ul style="list-style-type: none"> • Supervision of experimental setups and conduction • Maintenance of administrative software • Various projects for Dr. Andrej Svorencik at the Chair of Experimental Economics 	
Internship	June 2017 – July 2017
<i>Karl Kolb Teheran</i>	<i>Teheran, Iran</i>
<ul style="list-style-type: none"> • Support of the local manager in administrative tasks • Client visits at numerous Iranian cities 	
Internship	May 2016 – July 2016
<i>Salm - Salm and Partners Fondsgesellschaft</i>	<i>Wallhausen, Germany</i>
<ul style="list-style-type: none"> • Log of meetings and conferences • Introduction to convertible bonds and other bonds • Various administrative tasks 	
Military Service	Okt. 2015 – May 2016
<i>Bundeswehr Deutschland</i>	<i>Berchtesgaden, Germany</i>
<ul style="list-style-type: none"> • Voluntary military service at Gebirgsjägerbattalion 232 in Bischofswiesen, Germany 	

PROJECTS

Master Thesis	September 2024
<ul style="list-style-type: none"> • Thesis title: Dephased Rapid Ground State Mapping: advancing ORCA Quantum Memories • Theoretical, numerical and experimental implementation of novel optical quantum memory protocol • Supervision: Sarah Thomas, Ian Walmsely, Tilmann Esslinger 	
Semester Thesis	September 2023
<ul style="list-style-type: none"> • Thesis title: Ab initio Simulation of Quantum Dot Qubits based on Bilayer Graphene-WSe₂ Heterostructure • Simulation of semiconductor device for quantum information processing • Supervision: Mathieu Luisier, Jiang Cao 	
Semester Thesis	June 2023
<ul style="list-style-type: none"> • Thesis title: Optical Spectroscopy of 2D van-der-Waals semiconductor CrSBr • Optical characterisation of excitonic properties • Supervision: Atac Imamoglu, Tomasz Smolenski 	
Semester Thesis	May 2022
<ul style="list-style-type: none"> • Thesis title: Torus Amplitudes and Modular Invariance in String Theory • Review thesis on closed string interaction and its parametrisation via a torus partition function • Supervision: Jakub Vosmera 	
Bachelor Thesis	August 2019
<ul style="list-style-type: none"> • Thesis title: Staat und Wirtschaft im totalitaristischen Wirtschaftssystem Chinas • Economic analysis of the entanglement of state and economic affairs in PRC • Supervision: Hans-Peter Grüner 	

AWARDS AND HONOURS

MSCA Doctoral Fellowship	November 2024
QuanTech Winner ETH 2024 <ul style="list-style-type: none">• Winner of project competition in a team of four• Awarded 2000 CHF by IBM Quantum Zurich	January 2024
PROMOS stipend DAAD <ul style="list-style-type: none">• Stipend of 1600 EUR	September 2018

TECHNICAL SKILLS

Languages: Python, C++, R, Julia
Simulation: ANSYS Maxwell and HFSS, LT Spice, SystemVerilog

LANGUAGES

German: Native language
English: Fluent (C2)
Italian: Intermediate (A2)
French: Intermediate
Farsi: Basic knowledge