

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

Europe

MSCA joint PhD program in Mathematics and Physics

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

London, GB

Postgraduate Studies, Master Thesis

March 2024 - Okt. 2024

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

ETH Zürich

Zurich, Switzerland

M.Sc. in Quantum Engineering

Sept. 2022 - 2024

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

ETH Zürich

Zurich, Switzerland

B.Sc. in Physics

Sept. 2019 - Aug. 2022

Korea University

Seoul, South Korea

B.Sc. in Economics, PROMOS stipend from DAAD

Sept. 2018 – Jan. 2019

University of Mannheim

Mannheim, Germany

B.Sc. in Mathematical Economics

Sept. 2016 - Sept. 2019

Humanistic Lessing Gymnasium Frankfurt

Frankfurt, Germany

Abitur

2010 - 2015

EXPERIENCE

Research Assistant

June 2023 – July 2023

ETH Zürich

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

Jan. 2023 – Dez. 2023

ETH Zürich, KOF

Zurich, Switzerland

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

Undergraduate Teaching Assistant

Sept. 2022 – Jan 2023

ETH Zürich

Zurich, Switzerland

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

Internship

June 2022 - July 2022

ETH Zürich

Zürich, Switzerland

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

Undergraduate Teaching Assistant

Sept. 2021 – Jan 2022

ETH Zürich

Zurich, Switzerland

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

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| <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

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| 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

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| 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