

Simon Fischer

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(1) EDUCATION

Undergraduate Studies in Physics 2017 – present
University of Tübingen, Tübingen, Germany
Grade: 1.28

Undergraduate Studies in Physics 2021
University of Michigan, Ann Arbor, USA
GPA: 4.0

(2) ACADEMIC AWARDS

Recipient of National German Academic Scholarship 2022

Recipient of Baden-Württemberg Scholarship 2021

Award for excellent performance (Abitur) 2017

Award for best performance in English (Abitur) 2017

(3) RESEARCH EXPERIENCE

Research on the intersection of scattering amplitudes and cosmology March 2022 - present
(Max-Planck Institute for Physics, Munich)
Working in the group of Professor Henn, I am dedicated to the investigation of symmetries of the wavefunction of the universe in the formalism of Quantum Field Theory and its representation as cosmological polytopes.
Keywords: Scattering amplitudes, Wavefunction of the universe

Research on the detection of Dark Matter January 2021 – present
(University of Tübingen)
Undergraduate Research at the IAAT in Tübingen. Conducting research focused on the detection of a dark matter decay signal from the Galactic Center using computational methods.
Keywords: Dark Matter, Particle Physics, Dark Halo, Computational Physics

Undergraduate research on molecular spectroscopy September 2021 – December 2021
(University of Michigan, Ann Arbor)
Undergraduate Research in the Cundiff Laboratory, which is part of the Randall Laboratory in Ann Arbor. Conducting research focused on molecular spectroscopy and atomic vapors.

Keywords: Atomic Vapors, Vibrational Modes, Molecules, Laser, Atomic Physics

(4) EXTRACURRICULAR ACTIVITY

Vice President at ICC Escher House, Ann Arbor	August 2021 - present
Organizing a warming center / shelter for the homeless (Ann Arbor) Funded by the Barger-Leadership-Institute and in collaboration with the Washtenaw Camp Outreach: Established a warming center for people who are forced to sleep outside.	August 2021 - present
Global Leader Experience Certified seminar on global issues and peacekeeping	September 2021
Summer Student at DESY (Remotely)	August 2021
Intercultural training (Bochum) Seminar on integration, leadership, and conflict resolution	
International Tutor Responsible for integration of ~ 200 international students	2018 - 2021
Scientific staff with excellent valuation in two different areas: Ionizing Radiation, Strings & Vibration	2018 – 2021
Mediator & conflict resolution training	2011

(5) AFFILIATIONS

German Physical Society (DPG)	February 2022 - present
Barger Leadership Institute (Ann Arbor)	August 2021 – present
Studienstiftung des Deutschen Volkes Alumni	March 2022 - present
BW Scholarship Alumni	July 2021 - present
Deputy in Particle-Physics-Examination committee	July 2021 - present
Member of Student Council	June 2021 - present

(6) PUBLICATIONS AND ORIGINAL WORK

Constraining Dark Matter Properties with INTEGRAL/SPI 2021
Publication in preparation.

“Energie” – Anthology

Available [here](#).

Manuscripts and further work:

Send me a request or see my [personal website](#)

(7) TEACHING & TALKS

Certified workshop: February 2022
"Performing and pitching training for online presentations"

Scientific staff (see above) (Tubingen) 2018-2021
Preparing and holding physics classes and supervising experiments conducted by undergraduate students.

Tutor In Optics (Tubingen) 2019
Preparing and holding physics classes for undergraduate students, grading exams.

Tutoring German and English for Refugees (Tubingen) 2018-2019

Private Tutoring in Mathematics and Physics (Tubingen) 2018

Presentations in seminars and colloquiums 2018 - present
Talks on various topics such as Statistical Mechanics, Many-Body-Quantum-Optics, and presentation of research about Dark Matter

More on my website: <https://fischerportfolio.me/>