Oliver Schön

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Personal Profile

I am a PhD candidate in Theoretical Physics at University of Tübingen, Germany. During my undergrad and graduate studies, I developed a fascination for scientific outreach, communication, and teaching. I remain curious about new technology and I am able to find interest in all kind of areas including but not limited to managing and developing open source projects such as Manim. Additionally, I have a passion for bicycles and volunteer to repair them in various community events.
Personal Details: Born on the 17th December 1993 in Albstadt, Germany. German citizen. Engaged to Karla Elisabeth Traulsen.

Education

University of Tübingen *Tübingen, Germany*

PhD Theoretical Physics *Oct 2019 - Present*

- Working title: On Alternatives of General Relativity.

University of Tübingen *Tübingen, Germany*

MSc in Mathematical Physics; Grade 1.28 (very good) *Oct 2017 - Sep 2019*

- Thesis: On Hyperbolic Constraints in Mathematical Cosmology.

University of Otago *Dunedin, New Zealand*

Visiting research student at the Mathematical Physics department. *Oct 2018 - Mar 2019*

- PROMOS-Stipend of the German Academic Exchange Service (DAAD).

University of Tübingen *Tübingen, Germany*

BSc in Mathematicas; Grade 1.4 (very good) *Oct 2013 - Sep 2017*

- Thesis: On photon spheres and 2+1 dimensional General Relativity.

Work Experience

IMAGINARY gGmbH - `https://www.imaginary.org` *Remote*

Freelance Science Communicator and Scientific Illustrator *Mar 2018 - Present*

- Creating illustrations, explanations, and examples of the connection between music and AI in today's world for `https://www.muski.io` (Dec 2022 - March 2023).
- Designed and hosted multiple online workshops around AI technology for students from Germany, UK, Australia, India, and Pakistan (Nov 2020 - Present). Workshops include topics like image recognition, neural networks, music composition but also ethics and limitations of AI.
- Contributed to the online course "KI-Explorables für die Schule" hosted on the platform AI Campus - `https://ki-campus.org/courses/explorables-schule` (Jan 2022 - Mar 2022). Created scientific illustration and explanations designed for high school students.
- Designed and hosted in-person workshops for students and teachers in Tashkent, Uzbekistan (Mar 2018), Lagos, Nigeria (Nov 2019), and Prague, Czech Republic (May 2022). Topics ranged from general natural science to modern AI technology including the creation of a scientific exhibition.

University of Tübingen *Tübingen, Germany*

Lecturer, Research, and Teaching assistant *Oct 2016 - Aug 2021*

- Lecturer Manim Seminar (Aug 2021). Created and hosted a week long Manim block seminar for mathematics and physics students. Instructed on the basics of Python and the creation of high-quality mathematical animations.
- Guest Lecturer at Leibniz Kolleg (Apr 2019 - Jul 2019). Responsible for creating a curriculum about applied mathematics for first year students and teaching weekly lectures.
- Research Assistant (Mar 2017 - Oct 2018). Created mathematical graphics with LaTeX and tikz for current research papers.
- Teaching Assistant (Oct 2016 - Jul 2020). Various courses including Analysis, Linear Algebra and Mathematics for Computer Science.

Extracuricullar Projects

ADFC - Allgemeiner Deutscher Fahrrad Club e.V. *Tübingen, Germany*

Bicycle Mechanic, Infrastructure consultant *Jul 2022 - Present*

- Performing regular free-of-charge bicycle checks and repairs for students and general community in Tübingen with the largest bicycle organization in Germany.
- Active in the discussion and development of the future bicycle infrastructure in and around Tübingen, see `https://www.tuebingen.de/radverkehrskonzept`.

Manim - Mathematical Animations – `https://www.manim.community` *Remote*

Core Developer *Jun 2021 - Present*

- Core Developer in a big open source project called Manim, a Python library to create scientific animations. Responsible to maintain and further the code-base and reviewing pull requests from the community. Additionally, creating and maintaining the documentation for this project.

Mind & Shape – University of Tübingen *Tübingen, Germany*

Exhibition Coordinator *Feb 2017 - Present*

- Guide for the exhibition Mind & Shape (collection of geometrical shapes and mathematical ideas) for people with different academic backgrounds.

Skills

Languages German (native), English (professional), French (basic)

Programming Python (good, NumPy, Manim, Matplotlib), Mathematica (basic, xTensor), Matlab (basic)

Miscellaneous LaTeX (very good, tikz), iOffice (basic), Microsoft Office (basic)

Interests

Sports I love playing chess and riding my bicycle on a daily basis including commuting to work.

Engagement Worked as youth leader at „Ferienwaldheim Ebingen e.V." (children's holiday-camp) and for an interscholastic project group called „Mach Schule e.V." („Do School").

Animations Creating short physical and mathematical animations for a broader audience, see `https://photonspheres.github.io`. I also wrote the scripts and did the animations in these videos: `https://youtu.be/gzSruVyV4O4` and `https://youtu.be/UVfR9u1TGW0`.

Music Playing and composing music with guitar and saxophone. I recently developed an interest in the connection between AI and music.