

# Mila Lüscher

22.01.1999

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## EDUCATION

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- **MSc Physics**  
ETH Zurich  
2021 - 2023
- **BSc Physics**  
University of Zurich  
2017-2021
- **Swiss Matura**  
Kantonsschule Büelrain Winterthur (with focus on economics and law)  
2013-2017

## EXPERIENCE

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- **Support Crew, Faculty of Medicine**  
Supporting the faculty of medicine (MeF UZH) in the organization and execution of lectures, courses and exams  
*Aug 2020 - Present*
- **Teaching Assistant**  
Leading exercises classes in "Physics for Life Sciences"  
*Feb-Aug 2020*

## ADDITIONAL EXPERIENCE

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- **Cameo Cinema**  
On weekends I worked at a local cinema selling tickets and beverages.  
*2018-2020*
- **Volunteer work at the Musikfestwochen 15 & 16**  
Helping out in the organisation and execution of the Musikfestwochen in Winterthur  
*August 2015 & 2016*

## PROJECTS

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- **Bachelor Thesis (UZH)**  
"The Impact of Supermassive Black Holes on Galaxy Morphology" supervised by Prof. Romain Teyssier.  
Using the N-body, hydro-dynamical code RAMSES, I simulated galaxies with the supercomputers at CSCS. The goal was to test how implementing supermassive black holes would change the morphology of the galaxies.
- **Semester Project (ETH)**  
Here I analysed globular clusters in high-redshift galaxies, under the supervision of Prof. Robert Feldmann. These galaxies were simulated with the code GIZMO in combination with the feedback model FIRE-2.
- **Master Thesis (ETH)**  
During 6 months I worked on my master thesis under the supervision of Prof. Alexandre Refregier. My task was to generate weak lensing dark matter density maps using a conditional denoising diffusion probabilistic model (with the library PyTorch).

## SKILLS

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- **Technologies**  
Python, LaTeX, Unix, Machine Learning (TensorFlow, PyTorch), Git, Awk, Slurm, Gnuplot, Paraview, Microsoft Office, C++ (basics), Swift (basics), Julia (basics)
- **Languages**  
English (mother tongue & CPE), German (mother tongue)