

## Curriculum Vitae

Lorenz Zwick

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## Education

**Bachelor Degree in Physics** at ETH Zürich.

Graduated the 20th of September 2017.

**Masters Degree in Physics** at ETH Zürich.

Graduated the 4th of June 2019.

## Languages and IT Skills

Fluent in **Italian**, **English** and **German**. Working knowledge of **French**.

Good knowledge of **Python** and **Mathematica**. Working Knowledge of **C++**.

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## Employment History

**2013 -2014: Assistant Mountain Guide** in Finale Ligure, ITA.

For Luigi Gagliardi (*gigio.gagliardi@gmail.com*); Summer Season.

**2015-2019: Assistant Teacher** at ETH Zürich.

For the D-PHYS department; Five semesters in total.

**2019-ongoing: PHD position in Theoretical Astrophysics** at UZH Zürich,  
under the supervision of Lucio Mayer (*lmayer@physik.uzh.ch*).

## Teaching Experience

**Private tutor** for several Gymnasium students, at Zürcher Nachhilfe.

**Teaching assistance at ETH** in various Mathematics and Physics courses.

**Teaching assistance at UZH** in Theoretical Astrophysics and Cosmology, as part of my PHD duties.

**Supervisor** for the semester Thesis of ETH student **Jeremy Layan**, on the topic of Post Newtonian expansions.

**Supervisor** for the semester Thesis of ETH student **Marcus Haberland**, on the topic of Exoplanets and Gravitational Waves. Accepted for PhD programme in Potsdam, Germany.

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## Additional Scientific Output

**Lead author** of the accepted proposal "Future Missions to Uranus and Neptune: Prospects for Non-Planetary Science". ISSI, International Teams in Space and Earth Sciences.

**Member** of the LISA Consortium.

**Chapter Coordinator and Author** for the LISA astrophysics working group white paper "Astrophysics with the Laser Interferometer Space Antenna".

**Participant** in the "Bridging the gap" programme at KITP, Santa Barbara, May 2022.

## Selected Talks, Posters and Proceedings

**Talk:** Improved Gravitational Radiation Timescales, The XIIth LISA Symposium, March 2020 Nijmegen.

**Talk:** Multiband Gravitational waves from gas embedded sources, YAGN conference, September 2021 Copenhagen.

**Talk:** Ice Giant Missions as Gravitational Wave Detectors, LISA community Call, October 2021 (Virtual).

**Talk:** Dirty Waveforms, Bridging the Gap programme, May 2022 KITP Santa Barbara.

**Invited talk:** Dirty Waveforms, AstroCoffee Meeting Bicocca, March 2021 Milano (Virtual).

**Invited talk:** The handbook of the gravitational wave astronomer, GW next conference, January 2022 Beijing (Virtual).

**Poster:** Resolving exoplanet transfers with intensity interferometry, at the 2021 EAS.

**Poster:** Local constraints on the dark sector via future missions to Uranus and Neptune, at the 2022 EAS.

**Poster & Proceeding:** Improved Gravitational Radiation Timescales, at the 55th Rencontre de Moriond (virtual), 2021.

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## Interests

I am interested in several areas of astrophysics related to **black holes**: Formation and growth of **quasars**, approximation schemes for **analytical waveforms**, the importance of **environmental effects** on gravitational waves. I am also interested in the possibility of detecting gravitational waves with **Doppler ranging** in the Solar system.

I am a keen mountaineer and rock-climber, having completed several ascents in the **alpine region**: Innominata ridge on Mont Blanc, Obergabelhorn southern face, Lion ridge on the Matterhorn, Cassin route on piz Badile and on the West Lavaredo peak.