

Adrian Beckert

beckert@caltech.edu

www.adrianbeckert.com

[OrcID](https://orcid.org/0000-0001-7218-4214) (0000-0001-7218-4214)

[Google Scholar](#)

Research experience

Postdoctoral Scholar (SNF Fellowship 2021-2023) with [Andrei Faraon](#) 10/2021 – present
in the *Nanoscale and Quantum optics* group (**Caltech**, Pasadena, CA)

- Establishing a new research branch: Silicon color centers

Doctor of Science ETH Zürich in Physics with [Gabriel Aeppli](#) 05/2017 – 08/2021
in the *Quantum Technologies* group (**Paul Scherrer Institut**, Switzerland)

- Coherent manipulation of crystal-field level in $\text{LiY}_x\text{Tb}_{1-x}\text{F}_4$ with EPR
- Ultra-high resolution FTIR spectroscopic study of coherence and hyperfine coupling in rare-earth quantum magnets ($\text{LiY}_x\text{RE}_{1-x}\text{F}_4$, RE=Ho, Tb, Tm, Er)
- Recommissioning and operation of ultra-high resolution FTIR at the Swiss Synchrotron Light Source with low-temperature sample environment.

Research assistant, with [Andreas Wallraff](#) 05/2016 – 04/2017
in the *Quantum Device Lab* (**ETH Zürich**, Switzerland)

- Preparing and executing the “Big Bell Test” experiment
- Designing a longitudinal readout circuit for a transmon qubit
- Exploring sources of decoherence for superconducting circuits

Master’s thesis, with [Andreas Wallraff](#) 09/2015 – 04/2016
in the *Quantum Device Lab* (**ETH Zürich**, Switzerland)

- Title: Towards the realization of a transmon longitudinally coupled to a lumped element resonator

Education

Doctor of Science ETH Zürich in Physics with [Gabriel Aeppli](#) 05/2017 – 06/2021
in the *Quantum Technologies Group* (**Paul Scherrer Institut**, Switzerland)

- Quantum information and solid-state physics with rare-earth ions

Master of Science ETH in Physics with [Andreas Wallraff](#) 09/2014 – 04/2016
in the *Quantum Device Lab* (**ETH Zürich**, Switzerland)

- Quantum information, superconducting circuits
- solid-state physics

Bachelor of Science ETH in Physics at **ETH Zürich** (Switzerland) 09/2011 – 08/2014

Awards and honors

Fellowship (Postdoc.mobility, 2 years) of the Swiss National Science foundation	10/2021 – present
Member of the Swiss Study foundation for highly skilled students	11/2011 – 01/2022
Award “ best degree of the year ” (valedictorian) for the Swiss Matura in Aarau	06/2010

Memberships in scientific societies

American Physical Society	10/2021 – present
Swiss Physical Society	10/2020 – present
Swiss Society for Photon Science	10/2020 – present

Teaching activities & certificates

Teaching Certificate of Practice (CTLO, Caltech)	04/2022 – present
Three graduate lectures (Caltech, EE/APh130 , 90 min each)	Fall term 2023
Two graduate lectures (Caltech, EE/APh130 , 90 min each)	Fall term 2022
Columbia EdX course (6 x 2.5h) on “Inclusive Teaching”	Spring term 2022
Learning to Teach certificate (ETH Zürich)	01/2017
TA in Physics I (ETH Zürich)	02/2017 – 04/2017
Tutoring in physics, mathematics and Swiss Matura subjects	05/2009 – 04/2016

Outreach activities

Talks & live demonstration of experiments

- Talk & discussion at symposium, “*Bell’s inequality and its implication on our reality*”, Lenzburg, Switzerland 09/2020
- 10 experiments & talk at Martin foundation for mentally disabled children, “*See, amaze & levitate*”, Zürich, Switzerland 08/2016
- 5 experiments & talk at youth event, “*Laws of nature*”, Lenzburg, Switzerland 01/2014