

Research group of Adrian Signer Theoretical particle physics @

high intensity - low energy - high precision

PAUL SCHERRER INSTITUT



uses the world's most intense muon beams
to look for indirect evidence of new physics

If you are interested in a Bachelor or Master project in the group of Adrian Signer and are willing to regularly spend time at PSI contact me at adrian.signer@psi.ch

You will work in the team. Specific topics are chosen in accordance with current group activities in the domain of

- <https://mule-tools.gitlab.io/>
- analytic calculations in QED at (next-to-)next-to-leading order
- analytic calculations of (low-mass) new-physics models for muonic processes
- application of effective-field-theory methods to muonic processes
- numerical implementations (Fortran, I'm afraid) of new processes and phenomenological studies
- development of numerical approach to combine real and virtual corrections in QFT
- development of approximate soft and collinear photon emission beyond fixed-order calculations