## Annual Meeting of the Swiss Physical Society 2024



Contribution ID: 78

Type: Talk

## [325] The muEDM experiment at PSI

Wednesday 11 September 2024 15:30 (15 minutes)

At PSI a high precision experiment is being set up to search for the muon electric dipole moment (muEDM) employing the frozen-spin technique. A muEDM larger than the Standard-Model prediction would be a sign for new physics. The search is conducted in two phases with a final precision of  $6 \cdot 10^{-23}$  e·cm. Eventually, this will improve the current best limit by three orders of magnitude. The EDM signal is measured by detecting an emission asymmetry of decay positrons from stored muons in a solenoid.

This talk covers the basic principles of the experiment, the experimental setup and its development, test measurements towards the final experiment, and gives an outlook onto the experiment.

Author: HÖHL, David
Co-author: Dr SCHMIDT-WELLENBURG, Philipp
Presenter: HÖHL, David
Session Classification: Nuclear, Particle- & Astrophysics (TASK)

Track Classification: Nuclear, Particle- and Astrophysics (TASK)