

## **LEMING - towards measuring the gravitational acceleration of muonium**

*Sunday, 28 September 2025 11:15 (30 minutes)*

The LEMING experiment at PSI aims for measuring the gravitational acceleration of muonium (Mu), and to carry out next generation laser spectroscopy experiments in search for beyond SM physics. We developed a novel cold muonium source by converting conventional (sub)surface muons in a thin layer of superfluid helium, resulting in a high brightness atomic beam. The new conversion method using high intensity continuous muon beams available at PSI allows the event-by-event probing of a large yield of Mu atoms in an atomic interferometer.

In this talk, the latest progress and future plans are presented.

**Primary author:** SOTER, Anna

**Presenter:** SOTER, Anna

**Session Classification:** Scientific Program