## Joint Annual Meeting of the Swiss and Austrian Physical Society 2023



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## **[311]** Precision Spectroscopy of Muonium

Muonium, the purely leptonic bound state of an anti-muon and an electron, is an excellent candidate to probe bound state QED and search for new physics beyond the Standard Model. I will introduce MuMASS, aiming to improve the Muonium 1S-2S transition by three orders of magnitude. I will present our latest experimental progress and results, touching on the New Physics reach of the measurements, as well as showing up to date theoretical calculations for the transition frequencies.

## **Theoretical Work**

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