Searching for New Physics at the Quantum Technology Frontier

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Precision spectroscopy of Muonium

Monday 3 July 2023 21:00 (2 hours)

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 Mu-MASS, aiming to improve the Muonium 1S-2S transition and Lamb Shift by orders of

I will introduce Mu-MASS, aiming to improve the Muonium 1S-2S transition and Lamb Shift by orders of magnitude. I will present our latest experimental progress and results, with a special focus on the New Physics reach of the measurements, as well as up to date theoretical calculations for the transition frequencies.

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