Quantum field theory meets gravity



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Finding hints of New Physics in Tritium molecular spectra

Thursday 26 September 2019 15:30 (30 minutes)

We are studying the effects of light New Physics that can materialise in deviations from the Coulomb potential on the length scale of molecules. Precision molecular spectroscopy thus sets complementary constraints on parameters that are not accessible in other type of experiments. We compare an estimate of the theoretical uncertainties to the available experimental precision in order to constrain classes of New Physics (light /pseudo/scalar, dark photon, neutrino force) and discuss how competitive this method is.

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