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Searching for light new scalars with atomic and nuclear clocks

Friday 25 October 2024 14:00 (20 minutes)

In recent years, the field of precision spectroscopy has emerged as a powerful and versatile probe for light new physics ranging from 10^{-22} eV to the MeV scale. In this talk I will focus on recent improvements of isotope shift measurements in ytterbium and on the first ever laser excitation of a nuclear transition, which was achieved earlier this year in thorium-229. Both have implications for the search for new scalars while allowing us to gain new insights into nuclear physics.

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