

CPT Violation in Atomic Physics

The CPT symmetry is an exact symmetry of local Lorentz-covariant field theories of point particles.

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Strong constraints from g-factor measurements (Dehmelt) of electrons and positrons.

Kaons:
$$\frac{|m_K - m_{\bar{K}}|}{m_K} \leq 10^{-18}$$

Measurements of 1S-2S hyperfine transitions in hydrogen and antihydrogen

Required accuracy: 10^{-18}