Ramon Stucki

University of Bern, Switzerland

Dispersion relations for K_S -> \gamma\gamma*2

1st December 2017

14:15

Minkowski room

Abstract

We analyse the rare kaon decays K_S -> \gamma\gamma and K_S -> \gamma\l^+\l^- in a dispersive framework. (The leptons are either electrons or muons). Our analysis extends predictions from lowest order chiral perturbation theory \chiPT to fully account for effects from final-state interactions. I will discuss how to formulate a dispersion relation. Given input from K_S -> \pi\pi and \gamma\gamma->\pi\pi, we solve the once-subtracted dispersion relation numerically to predict rates for the those processes. In the semi-leptonic modes, we find sizable corrections to the \chiPT predictions for the integrated rates.