Contribution ID: **110**   Type: **Talk**

Computing the long-distance contributions to ϵ_K

Friday, 17 July 2015 15:00 (20 minutes)

We will discuss the theoretical framework and initial results for the lattice QCD calculation of the long-distance contributions to ϵ_K, the measure of indirect CP violation in K_L decay. A proof-of-principle calculation has been carried out on a $24^3 \times 64$ lattice volume with an inverse lattice spacing of 1.73 GeV and pion mass of 329 MeV. A complete calculation will be described which shows how the logarithmically divergent lattice contribution can be combined with continuum perturbation theory to obtain a physical result.

Primary author: Prof. CHRIST, Norman (Columbia University)

Co-author: Mr BAI, Ziyuan (Columbia University)

Presenter: Prof. CHRIST, Norman (Columbia University)

Session Classification: Weak Decays and Matrix Elements

Track Classification: Weak Decays and Matrix Elements