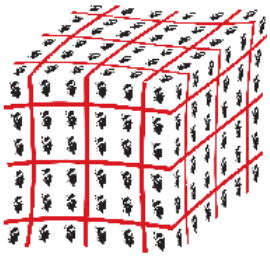

Contribution ID: **165** Type: **not specified**

K -> pi pi matrix elements from 2+1 flavor lattice QCD

Tuesday, 15 June 2010 18:00 (5 minutes)

We present a new method for determining K->pipi matrix elements from lattice simulations. This method is less costly than direct simulations of K->pipi at physical kinematics, and evades the Maiani-Testa no-go theorem by simulating with both pions at rest. It improves, however, upon the traditional "indirect" approach of constructing the K->pi pi matrix elements using NLO SU(3) ChPT, which can lead to large higher-order chiral corrections. We illustrate the method with the explicit example of the Delta I =3/2 (27,1) operator, and use the result to obtain a value for Re(A_2). All of our simulations use domain-wall valence quarks on the MILC asqtad-improved gauge configurations. This method, however, can be applied to data computed with any fermion formulation.

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poster

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