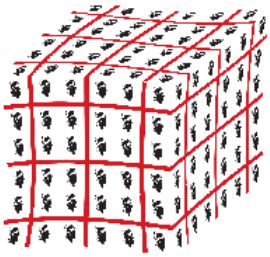

Contribution ID: **116** Type: **not specified**

Rho decay from twisted mass fermions

Tuesday, 15 June 2010 08:50 (20 minutes)

We calculate the P-wave pion-pion scattering phase in the rho decay channel using two flavors of maximally twisted mass fermions at pion masses ranging from 290 MeV to 480 MeV and lattice spacings of 0.079 fm and 0.063 fm. Making use of finite-size methods, we evaluate the pion-pion scattering phase in the center-of-mass frame and two moving frames. Using all three frames, we find a good description of the scattering phase as a function of the energy in the resonance region. From this we extract the rho mass and decay width and study its quark mass dependence.

Please, insert your presentation type (talk, poster)

talk

Primary author: FENG, Xu (NIC, DESY)

Co-authors: RENNER, Dru (NIC, DESY); JANSEN, Karl (NIC, DESY)

Presenter: FENG, Xu (NIC, DESY)

Session Classification: Parallel 21: Hadron spectroscopy

Track Classification: Hadron spectroscopy