



Contribution ID: 380

Type: Talk

Lattice Measurement of the Delta $I=1/2$ Contribution to Standard Model Direct CP-Violation in $K \rightarrow \pi \pi$ Decays at Physical Kinematics: Part I

Monday, 23 June 2014 16:50 (20 minutes)

The RBC & UKQCD collaborations have recently published lattice results for the $K \rightarrow \pi \pi$ decay amplitude in the $I=2$ channel, A_2 , and improved results will be presented at this conference. In this presentation we discuss the determination of the $I=0$ channel amplitude, A_0 . Combining this with A_2 provides ϵ' , the measure of direct CP-violation in the Standard Model. In part I we provide an overview of the project and detail our use of G-parity boundary conditions to achieve physical kinematics in the decay, as well as discussing the ongoing generation of the specialized lattices required.

Primary author: Dr KELLY, Christopher (Brookhaven National Laboratory)

Co-author: Mr ZHANG, Daiqian (Columbia University)

Presenter: Dr KELLY, Christopher (Brookhaven National Laboratory)

Session Classification: Weak Decays and Matrix Elements

Track Classification: Weak Decays and Matrix Elements