

Contribution ID: 318 Type: Talk

Semileptonic form factors of pseudoscalar mesons from Nf=2+1+1 Twisted Mass lattice QCD

Friday, 27 June 2014 17:10 (20 minutes)

We present a lattice QCD determination of the vector and scalar form factors of the kaon semileptonic decay K->pi nu l , and of the D meson semileptonic decays D->(K/pi) nu l which are relevant for the extraction of the CKM matrix element |Vus|, |Vcd| and |Vcs| from experimental data. Our preliminary results are based on the gauge configurations produced by the European Twisted Mass Collaboration with Nf=2+1+1 dynamical fermions, which account for the sea quark effects of the up, down, strange and charm quarks. We simulated at three different values of the lattice spacing and with pion masses as small as 210 MeV.

Primary author: Mr RIGGIO, Lorenzo (INFN)

Co-authors: Dr TARANTINO, Cecilia (Universita' di Roma Tre, INFN); Ms PICCA, Eleonora (Universita' di Roma Tre); Dr SANFILIPPO, Francesco (University of Southampton); Dr CARRASCO, Nuria (INFN); Mr LAMI, Paolo (Universita' di Roma Tre); Dr DIMOPOULOS, Petros (Centro Fermi, Universita' di Roma Tor Vergata); Dr FREZZOTTI, Roberto (Universita' di Roma Tor Vergata, INFN); Dr SIMULA, Silvano (INFN); Prof. LUBICZ, Vittorio (Universita' Roma Tre)

Presenter: Mr RIGGIO, Lorenzo (INFN)

Session Classification: Weak Decays and Matrix Elements

Track Classification: Weak Decays and Matrix Elements