## 42nd International Symposium on Lattice Field Theory (Lattice 2025)



Contribution ID: 33 Type: Talk

## $T_{cc}$ pole trajectory

Monday 3 November 2025 17:40 (20 minutes)

The recent discovery of  $T_{cc}$  has attracted several lattice QCD as well as other studies of  $T_{cc}$  pole. Though for  $T_{bb}$  there is a consensus about the existence of a deeply bound state, no such consensus have been reached for  $T_{cc}$ . On top of that the discovery of Left Hand Cut made the pole analysis using Lüscher's method difficult. In this situation it is desirable to study the pole trajectory of  $T_{cc}$  by varying the heavy and light quark masses. We performed such a study of  $T_{cc}$  pole trajectory on  $N_f=2+1+1$  HISQ ensembles.

## Parallel Session (for talks only)

Hadronic and nuclear spectrum and interactions

Author: MOHANTA, Protick (The Institute of Mathematical Sciences, Chennai, Tamil Nadu 600113)

Co-authors: PAUL, Srijit; BASAK, Subhasish (National Institute of Science Education and Research)

Presenter: MOHANTA, Protick (The Institute of Mathematical Sciences, Chennai, Tamil Nadu 600113)

Session Classification: Hadronic and nuclear spectrum and interactions