

Lattice QCD study of Z_b tetraquark channel

Wednesday 5 February 2020 16:30 (30 minutes)

Belle experiment discovered two tetraquark candidates Z_b^+ with flavor structure $\bar{b}b\bar{d}u$ near $B\bar{B}^*$ threshold. Lattice QCD study of this system will be presented. Significant attraction is found between B -meson and \bar{B}^* -meson at small distances. This attraction leads to an exotic virtual bound state slightly below threshold and a narrow peak in the $B\bar{B}^*$ rate slightly above threshold. These features resemble Z_b^+ seen experiment. I'll also review further theoretical work that is needed to overcome certain simplifying approximations of this study.

Author: PRELOVSEK, Sasa

Co-author: BAHTIYAR, Huseyin (Istanbul Technical University (TR))

Presenter: PRELOVSEK, Sasa