

RCNP, OSAKA UNIVERSITY

NUCLEAR PHYSICS

THEORY SEMINAR

Title Spectrum of the charmed baryons in
 2+1-flavor Lattice QCD

Speaker Utku Can (RIKEN)

Date and Time Jan 22nd (Tue.) in 2019 14:00-

Place Lecture room 1 on the 6th floor of RCNP main
 building

Abstract:

We extract the spectrum of charmed baryons on $32^3 \times 64$, 2+1-flavor gauge ensembles. Calculations are performed with almost physical light quarks, $m_\pi \sim 156$ MeV, and physical strange and charm quarks. A relativistic heavy-quark action is used for valence charm quarks to suppress the systematic errors. We employ a two-fold variational analysis in order to access the excited states by varying the interpolating operators and smearing parameters independently. In this talk, we report on the details and status of the current calculations and present our results for positive and negative parity, spin- $1/2$ and spin- $3/2$ states.

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