Contribution ID: **154** Type: **Talk**

Σc baryon spectroscopy in the relativistic framework of an independent quark model

Friday 18 July 2025 18:00 (25 minutes)

The heavy baryon spectroscopy is crucial for gaining deeper insights into the strong interaction in the Quantum Chromodynamics (QCD). It has attracted considerable experimental and theoretical attentions. So far, a large number of singly heavy baryons have been observed in experiment, which provides the important support for related theoretical researches. The mass spectroscopy of Σc will be performed within the relativistic framework of independent quark model. Individual quarks are governed by a Dirac equation in the center of mass frame. A Martin-like potential of equal mix of scalar and vector components is used to investigate the quark confinement within the baryon. With the suitable potential parameters for Σc, mass spectra for high radial excitation will be calculated. Magnetic moment and radiative decay are also predicted.

Internet talk

Yes

Is this an abstract from experimental collaboration?

No

Name of experiment and experimental site

N/A

Is the speaker for that presentation defined?

Yes

Details

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