



Contribution ID: 152

Type: Postar

Spectroscopy of hidden-bottom Pentaquarks.

Considering the discoveries of pentaquark structures such as $P_{\psi s}^{\Lambda(4338)^0}$, $P_c(4380)$, and $P_c(4450)$, we conducted a spectroscopic analysis of hidden-bottom pentaquarks. Using special unitary group representations, we systematically classified these hidden-bottom pentaquarks into two distinct configurations within the $SU(3)$ flavor representation: the octet and the decuplet. In this study, we utilized an extended form of the Gursery-Radicati (GR) mass formula and the effective mass scheme to estimate the masses of hidden-bottom pentaquarks. Additionally, our analysis extends to estimating the magnetic moments, employing the effective mass and screened charge schemes. Our findings, encompassing calculations of masses and magnetic moments, show a reasonable alignment with current theoretical predictions.

Field of contribution

Theory

Authors: Dr UPADHYAY, Alka (Thapar Institute of Engineering and Technology); SHARMA, Ankush (Thapar Institute of Engineering & Technology Patiala); Ms GARG, Rashmi (Thapar Institute of Engineering and Technology)

Presenter: SHARMA, Ankush (Thapar Institute of Engineering & Technology Patiala)

Track Classification: Beyond the standard model