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Study of the heavy bottom baryons in a potential model

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The bottom heavy baryons are studied in the framework of a nonrelativistic quark model. We use the Hypercentral approach to solve the six-dimentional Schrödinger equation of the baryons. Introducing a potential model, the ground state masses and magnetic moments of the Σ_b , Λ_b , Ξ_{bc} and Ξ_{bb} heavy baryons are calculated. We also investigate the $b \to c$ semileptonic decay widths of the bottom baryons. Finally, the branching fractions are calculated. Our results are in agreement with the available experimental data and those of other works.

In-person participation

No

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