

Contribution ID: 207

Type: Poster Presentation

The Bound ground states of the Hypernucei with single Lambda particle

Thursday, 12 July 2012 17:30 (2 hours)

Abstract content
 (Max 300 words)

We used the Jost function theory and the program developed for the FORTRAN environment to solve the firstorder coupled differential equations equivalent to the corresponding two-body Lamda-core nucleus radial Shrodinger equation to locate the Bound States of the Lambda-Hypernuclei on the ground s states. The system of linear first-order differential equations enabled us to perform direct calculations of our physical interest such as Bound states and Resonance states. In this paper we located only the Bound states. The interaction of the Lambda hyperon with core-nucleus was described by Woods-Saxon potential. The geometric parameters of the potential varied were from the Ref [1] in order to reproduce the binding energies on that paper. We located the Bound states (binding energies) and compared with other literature. The results obtaned correspond well.

Apply to be
 consider for a student
 award (Yes / No)?

yes

Main supervisor (name and email)
and his / her institution

Prof Rakityansky,rakitsa@up.ac.za University of Pretoria

Would you like to
 submit a short paper
 for the Conference
 Proceedings (Yes / No)?

no

Primary author: Mr GOPANE, Ishmael Mmusi (none)

Presenter: Mr GOPANE, Ishmael Mmusi (none)

Session Classification: Poster Session

Track Classification: Track B - Nuclear, Particle and Radiation Physics