

Mass spectra of di-baronic systems in charm sector

Tuesday 26 September 2017 20:45 (15 minutes)

In the potential model frame work, we study the S-wave molecular like structure of the di-baronic systems which consist baryon-baryon or baryon-antibaryon as a constituents. The mass spectra of the $\Sigma_c - \Sigma_c$ and $\Sigma_c - \overline{\Sigma}_c$ are predicted. By taking the deuteron as an approximation for our model calculation, the S-wave mass spectra of the molecular di-baronic systems are extracted. The One Boson Exchange potential(OBE) is being used for the inter baryon-baryon(antibaryon) interactions. The calculated mass spectra with possible quantum numbers are compared with the observed exotic resonances and other theoretical predictions in a possible molecular interpretation.

Authors: Mr RATHAUD, D. P. (Sardar Vallabhbhai National Institute of Technology Surat); Dr RAI, Ajay Kumar (Sardar Vallabhbhai National Institute of Technology Surat)

Co-author: MARFATIA, Zalak (Sardar Vallabhbhai National Institute of technology)

Presenter: MARFATIA, Zalak (Sardar Vallabhbhai National Institute of technology)

Session Classification: Poster session

Track Classification: Exotic states and candidates