

Lambda(1405) resonance in K-d scattering reaction

Wednesday, 17 September 2014 15:50 (20 minutes)

We solve the $\bar{K}NN-\pi$ YN coupled-channels Alt-Grassberger-Sandhas equations and examine how the $\Lambda(1405)$ resonance manifests itself in the π invariant mass distributions of $\bar{K}d \rightarrow \pi \Sigma N$ reactions. Two types of models for the two-body meson-baryon interactions are employed: an energy-independent and an energy-dependent version, both derived from the leading order chiral SU(3) Lagrangian but with different off-shell properties in the three-body $\bar{K}NN-\pi$ YN system.

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Session Classification: session I