

Status of $\Lambda(1405)$

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Understanding of the non-trivial pattern of excited states of QCD at low energies is one of the main goals of the modern nuclear physics. One of the most interesting states is the so-called Lambda 1405, which is widely accepted as a dynamically generated state from the meson-baryon interaction.

Recently, high precision data on the energy shift and width of the Kaonic-hydrogen as well as the line-shape measurements in the pi-Sigma photo-production experiment at CLAS have sparked new interest in this interaction channel. Additionally, the “molecular” picture of this state seems also to be supported by the recent Lattice QCD results.

In my talk, I will show the available input from experimental measurements and Lattice QCD calculations. Then, I will review the presently available theoretical models on the meson-baryon scattering and discuss their predictions in comparison to each other.

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