

The Lambda1405 measured in p+p and K-induced reactions: recent results

Monday, 15 September 2014 17:30 (30 minutes)

The Lambda1405 cannot be described within any theoretical framework as a normal hadron composed of three quarks, but is considered as emerging naturally from the coupling of different meson-baryon states with strange content. Hence one can look at this resonance as a molecule, where the dominant contribution are an Antikaon-proton and pi-Sigma states. Chiral SU(3) provides quantitative predictions for the amplitudes and phases of the poles building the Lambda(1405) but finally many experimental data remain partially unexplained and not described by theory.

Experimentally the production of the Lambda(1405) and its decay into a $(\Sigma\pi)^0$ final state can be studied using different entrance channels and the extracted spectral function differs strongly from the latter. In particular in this talk, recent results published by the HADES collaboration from p+p collisions at 3.5 GeV and measured by the KLOE-AMADEUS collaboration in experiment with stopped kaons will be compared and discussed in the context of all the available information about the Lambda(1405).

The puzzle remains undisclosed but new data are available.

Primary author: Prof. FABBETTI, Laura (Physik Department, Technische Universität München)

Presenter: Prof. FABBETTI, Laura (Physik Department, Technische Universität München)