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Neutron spectra from the Kbar + d break-up reaction and the shape of the Lambda(1405) resonance.

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Coupled channels Faddeev equations are being solved for the Kbar+d break-up reaction in the Kbar-N-N<->pi-Sigma-N three-body system. The main aim is to calculate the neutron spectra for fixed incident kaon energy - a really observable quantity, which is directly related to the shape of the Lambda(1405) state,as opposed to the widely used hypothetical curves, such as sub-threshold Kbar-p amplitudes or pi-Sigma cross sections.
We plan to investigate the effect of different Kbar-N interaction models on this spectrum, basically using interaction types introduced in [1] and further developped in subsequent papers of N.V.Shevchenko, e.g. [2].

[1] J.Revai, N.V.Shevchenko
Isospin mixing effects in the low-energy Kbar-N - pi-Sigma interaction
Phys. Rev. C 79, 035202 (2009)
[2] N.V.Shevchenko
One- versus two-pole Kbar-N - pi-Sigma potential: Kbar-d scattering length
arXiv: 1103.4974

Primary author: Dr REVAI, Janos (Joint Institute for Nuclear Research)

Presenter: Dr REVAI, Janos (Joint Institute for Nuclear Research)

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