

SEMINÁŘ OTF ÚJF, ŘEŽ

**MAXIM MAI**

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**Constraints on the chiral unitary  $\bar{K}N$   
amplitude from  $\pi\Sigma K^+$  photoproduction data**

**Abstrakt**

I will present a study of antikaon-nucleon amplitude and how it can be constrained by experimental data. We find multiple sets of parameters for which the model describes all existing hadronic data similarly well, confirming the two-pole structure of the  $\Lambda(1405)$ . The narrow  $\Lambda(1405)$  pole appears at comparable positions in the complex energy plane, whereas the location of the broad pole suffers from a large uncertainty.

In the second part, I will present a simple way to constrain the antikaon-nucleon amplitude using the photoproduction data of  $K^+\pi\Sigma$  measured at JLAB by the CLAS collaboration.

**Seminář se koná v pátek 4. 12. 2015 v 10:30 hod.  
v seminární místnosti OTF ÚJF Řež**

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