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## Constraints on the chiral unitary KN amplitude from $\pi\Sigma K$ photoproduction data

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A chiral unitary approach for antikaon-nucleon scattering in on-shell factorization is studied. We find multiple sets of parameters for which the model describes all existing hadronic data similarly well. We confirm 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 step, we use a simple model for photoproduction of  $K^+ \pi\Sigma$  off the proton and confront it with the experimental data from the CLAS Collaboration. It is found that only a few of the hadronic solutions allow for a consistent description of the CLAS data within the assumed reaction mechanism.

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