

Abstract Submitted  
for the DNP16 Meeting of  
The American Physical Society

**Antikaon-nucleon scattering and the hyperon spectrum** CÉSAR FERNÁNDEZ-RAMÍREZ, Instituto de Ciencias Nucleares, Universidad Nacional Autónoma de México — I present the results of a coupled-channel model for  $\bar{K}N$  scattering in the resonance region. The model fulfills unitarity, has the correct analytical properties for the amplitudes and the partial waves have the right threshold behavior. The parameters of the model have been established by fitting single-energy partial waves up to  $J = 7/2$  and up to 2.15 GeV of center-of-mass energy. The Lambda and Sigma spectra have been obtained, providing a comprehensive picture of the  $S = -1$  hyperon spectrum.

César Fernández-Ramírez  
Instituto de Ciencias Nucleares, Universidad Nacional Autónoma de México

Date submitted: 28 Jun 2016

Electronic form version 1.4