XIII Mexican School of Particles and Fields



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Recent developments in chiral unitary theory on meson-meson and meson-baryon interactions

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Abstract content

I shall give a brief exposition of chiral dynamics and unitarity in coupled channels to deal with hadron interactions. Explicit examples will be given for meson baryon interaction showing how some resonances are dynamically generated, in particular two Lambda(1405) states for which some experimental evidence has been found. Similarly the interaction of vector mesons with pseudoscalars leads to axial vector mesons and I shall show how two K1(1270) states appear, which also find support in experiment. The method will be extrapolated to the realm of charmed mesons, where many new resonances are predicted some of which have already been found in recent experiments at BABAR, BELLE, CLEO and other facilities. Finally I shall report on novel results involving systems with three hadrons, two mesons and one baryon or three mesons, and how onesthey compare with known resonances or other ones recently found.

Summary

Primary author(s): Dr. OSET, Eulogio (Valencia U, IFIC.)

Presenter(s): Dr. OSET, Eulogio (Valencia U, IFIC.)

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