Padé Theory and phenomenology of resonance poles

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Abstract

We use Padé approximants for the description of hadronic matrix elements. We analyze resonant amplitudes in the elastic region. By means of the Montessus de Ballore’s theorem we are able to extract properties of the amplitude in a model independent way. For instance, we will show how it is possible to obtain the resonance pole mass and width without relying in any particular hadronic model.

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