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Tensor exchange contribution to meson-meson scattering

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In this note we study the tensor and vector exchange contributions to the elastic reactions involving the pseudoscalar mesons π+π−, K+K−and D+D−. In the case of the tensor-exchange contributions we assume that an intermediate tensor f2(1270) is dynamically generated from the interaction of two virtual ρ mesons, with the use of a pole approximation. The results show very small contributions coming from the tensor-exchange mechanisms when compared with those from the vector-exchange processes, of the order of 10^-3, which make this contribution negligible. This gives support to the use of the chiral unitary approach based on the exchange of vector mesons. We explain why these results are even smaller than those previously found in [ecker].
[ecker] G. Ecker and C. Zauner, Eur. Phys. J. C 52, 315-323 (2007).

session

E. Hadron and Nuclear Interactions

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