

An Extended Chiral SU(3) Quark Model

ZHANG Zong-Ye,¹ YU You-Wen,¹ WANG Ping,¹ and DAI Lian-Rong²

¹ Institute of High Energy Physics, the Chinese Academy of Sciences, Beijing 100039, China

² Department of Physics, Liaoning Normal University, Dalian 116029, China

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Abstract: The chiral SU(3) quark model is extended by including the vector meson exchanges to describe the short range interactions. The phase shifts of NN scattering are studied in this model. Compared with the results of the chiral SU(3) quark model in which only the pseudo-scalar and scalar chiral fields are considered, the phase shifts of 1S_0 wave are obviously improved.

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Key words: NN interaction, quark model, chiral symmetry

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