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Hadron interactions using three-quark potential in a constituent quark model

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In this work, we investigate the hadron interactions using the three-quark potential in a constituent quark model. Three-quark potentials have only been studied for simple cases because it is difficult to calculate the three-color interaction matrix and determine the radial dependence of potential. In the case of a multiquark system, the three-quark color matrix can be calculated using the permutation matrix, but when there are antiquarks, a different method must be used. In order to calculate the three-quark potential, we use the commutation and anticommutation relations of SU(3) and apply it to exotic hadron configurations.

session

E. Hadron and Nuclear Interactions

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