

Study of the decay width of Tcc tetraquark based on a quark model

In this talk, I briefly summarize the main points of an on-going work on the study of the decay width of the tetraquark Tcc(3875) based on a quark model.

In this work, we propose a method to calculate the decay width of Tcc to $D+D+\pi$ in a quark model, by adding the repulsive force between two light quarks, and analyze the correlations among the binding energy, the decay width, the distance between two charm quarks, and so on. We find that, although there is no strong correlation between the binding energy and the distance, there is strong correlation between the binding energy and the distance.

Our results show that study of the decay width is important to clarify the structure of Tcc, and indicate that the Tcc has the meson-molecule structure.

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