

χ_{cJ} Decays into $B\bar{B}$ in Quark-Pair Creation Model

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Abstract: A quark pair creation model is introduced to study the χ_{cJ} exclusive decays into baryon-antibaryon pairs. The decay widths for processes $\chi_{cJ} \rightarrow B\bar{B}$ ($J=0, 2; B=\Lambda, \Sigma^0, \Xi^-$) are evaluated phenomenologically with an explicit inclusion of the properties for outgoing baryons described by wave functions in the naive quark model. The results show that states χ_{cJ} ($J=0, 2$) decay into $\Lambda\bar{\Lambda}$ pair with a larger branching ratio than into $p\bar{p}$ pair.

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