

## Nonleptonic weak decays of charmed baryons

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We have made a three-loop quark model calculation of the  $W$ -exchange contribution to the nonleptonic two-body decays of the doubly charmed baryons  $\Xi_{cc}$  and  $\Omega_{cc}$ . The  $W$ -exchange contributions appear in addition to the factorizable tree graph contributions and are not suppressed in general. We make use of the covariant confined quark model previously developed by us to calculate the tree graph as well as the  $W$ -exchange contribution. We calculate helicity amplitudes and quantitatively compare the tree graph and  $W$ -exchange contributions. Finally, we compare the calculated decay widths with those from other theoretical approaches when they are available.

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