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Weak Decays of Charmed Baryons

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Some breakthroughs in charmed-baryon experiments, including singly charmed baryons and doubly charmed baryons, have been made in recent years. In this talk, I will introduce the new calculated branching fractions and spin asymmetry of typical two-body weak decays for both singly and doubly charmed baryons. Both factorizable and nonfactorizable contributions are incorporated in the study. For the nonfactorizable contribution, generated from W-exchange and internal W-emission, we resort to pole model and the current algebra technique. Our prediction for some modes of Λ_c^+ decays are in excellent agreement with BESIII measurement. The ongoing Belle-II and LHCb experiments are anticipant to further check our prediction for decays of Ξ_c^0, Ξ_c^+ as well as doubly charmed baryons $\Xi_{cc}^{(++)}, \Xi_{cc}^+$ and Ω_{cc}^+ .

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