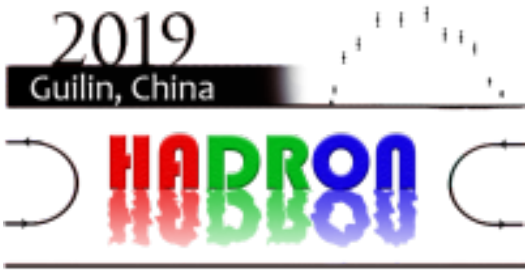

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Pseudoscalar or vector meson production in non-leptonic decays of heavy hadrons

Tuesday, 20 August 2019 15:25 (20 minutes)

We have addressed the study of non-leptonic weak decays of heavy hadrons (Λ _b, Λ _c, B and D), with external and internal emission to give two final hadrons, taking into account the spin-angular momentum structure of the mesons and baryons produced. A detailed angular momentum formulation is developed which leads to easy final formulas. By means of them we have made predictions for a large amount of reactions, up to a global factor, common to many of them, that we take from some particular data. Comparing the theoretical predictions with the experimental data, the agreement found is quite good in general and the discrepancies should give valuable information on intrinsic form factors, independent of the spin structure studied here. The formulas obtained are also useful in order to evaluate meson-meson or meson-baryon loops, for instance of B decays, in which one has PP, PV, VP or VV intermediate states, with P for pseudoscalar mesons and V for vector meson and lay the grounds for studies of decays into three final particles.

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