## The 5th international conference on particle physics and astrophysics



Contribution ID : 877

Type : Oral talk

## Charmonia Production in W -> c c Ds Decays

Wednesday, 7 October 2020 11:45 (15)

In the presented paper production of charmonium state Q in exclusive  $W \to QD_s^{(*)}$  decays is analyzed in the framework of both leading order Nonrelativistic Quantum Chromodynamics (NRQCD) and light-cone expansion (LC) models. Analytical and numerical predictions for the branching fractions of these decays in both approaches are given. The typical value of the branching fractions is  $\sim 10^{-11}$  and it turns out that the LC results are about 4 times lager than NRQCD ones, so the effect of internal quark should be taken into account. Some estimates of color-octet contributions are presented and it is shown, that these contributions could be comparable with color-singlet results.

**Primary author(s) :** Dr. LUCHINSKY, Alexey (Institute for High Energy Physics); Dr. LIHODED, Anatoly (Institute for High Energy Physics)

**Presenter(s) :** Dr. LUCHINSKY, Alexey (Institute for High Energy Physics)

Session Classification : HEP theory

Track Classification : HEP theory