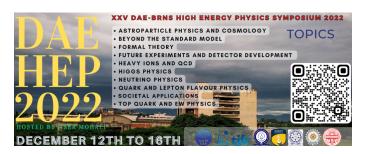
XXV DAE-BRNS High Energy Physics Symposium 2022



Contribution ID: 46 Type: Poster

Analysing the S-wave charmonium decays of B_c meson

Tuesday 13 December 2022 14:00 (1 hour)

This talk will discuss the semi-leptonic and non-leptonic B_c meson decay into S-wave charmonium and present our results. This analysis has been done in the non-relativistic QCD(NRQCD) framework. We used Heavy-Quark Spin Symmetry (HQSS) to relate the $B_c \to \eta_c$ to the $B_c \to J/\psi$ form factors. Furthermore, the information on $B_c \to \eta_c$ form factors were extracted from available information on $B_c \to J/\psi$ form factors from the lattice. We then predict the observables $R(J/\psi)$ and $R(\eta_c)$ along with their NP predictions for these observables. Several other predictions are related to e^+e^- , Higgs, and Z- decay to single or double charmonium and radiative modes involving J/ψ and(or) η_c also presented here.

Session

Quark and Lepton Flavour Physics

Primary authors: SAHOO, Shantanu (IIT Guwahati); Dr NANDI, Soumitra (IIT Guwahati); Dr BISWAS,

Aritra

Presenter: SAHOO, Shantanu (IIT Guwahati)

Session Classification: Poster - 2