

Absolute Branching Fraction Measurements for Exclusive D_S Semileptonic Decays.

Abstract

Using data collected with CLEO-c detector at a center-of-mass energy of 4170 MeV, where we produce $D_s^* D_s$ meson pairs, we fully reconstruct one D_s and then measure the exclusive semileptonic decays of the other by reconstructing all of the remaining charged tracks and photons inferring the existence of a neutrino kinematically. In particular, we have studied the Cabibbo-suppressed semileptonic decays $D_s^+ \rightarrow K^{*0} e^+ \nu_e$ and $D_s^+ \rightarrow K^0 e^+ \nu_e$. We have also measured the decays $D_s^+ \rightarrow \phi e^+ \nu_e$, $D_s^+ \rightarrow \eta e^+ \nu_e$, $D_s^+ \rightarrow \eta' e^+ \nu_e$ and $D_s^+ \rightarrow f_0 e^+ \nu_e$.