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Measurement and interpretation of moments in Decays B -> Xc ell nu

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Semileptonic B decays to DXlnu (l = e or mu) are selected by
reconstructing D0l and D+l combinations from a sample of 230 million
Upsilon(4S) -> BB decays recorded with the BABAR detector at the PEP-II
e+e- collider at SLAC. A global fit to these samples in a 3-dimensional
space of kinematic variables is used to determine the branching
fractions B(B- -> D0 l nu) = (2.34 +/- 0.03 +/- 0.13)% and
B(B- -> D*0 l nu) = (5.40 +/- 0.02 +/- 0.21)% where the errors are statistical and
systematic, respectively. The fit also determines form factor parameters
in a HQET-based parameterization, resulting in
rho2_D = 1.20 +/- 0.04+/- 0.07
for B -> D l nu and rho2_D* = 1.22 +/- 0.02 +/- 0.07 for B -> D*l nu.
These values are used to obtain the product of the CKM matrix element |Vcb|
times the form factor at the zero recoil point for both B -> D l nu
|decays, G(1)|V_cb| = (43.1 +/- 0.8 +/- 2.3) 10^-3 , and for B -> D* l nu decays,
F(1)|V_cb| = (35.9 +/- 0.2 +/- 1.2) 10^-3 .

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