EPS-HEP99
Abstract #5-478
Parallel sessions: 5
Plenary sessions: 5

Results on B Decays from SLD

The SLD Collaboration[a]
[a] Stanford Linear Accelerator Center, Stanford, CA 94309, USA

We present three updated results from SLD on B decays: a measurement of the branching ratio for the process $B \rightarrow D\bar{D}X$, an inclusive search for the process $b \rightarrow sg$ and exclusive searches for rare charmless B decays. All three measurements make use of the excellent vertexing efficiency and resolution of the CCD Vertex Detector and the first two make use of the excellent particle identification capability of the Cherenkov Ring Imaging Detector. All analyses benefit from a new tracking reconstruction which significantly improves track impact parameter and vertex resolution. The $B \rightarrow D\bar{D}X$ analysis reconstructs two secondary vertices and uses identified charged kaons to determine which of these came from charm decays. The analysis has a statistical branching ratio precision under 2%. The $b \rightarrow sg$ analysis searches for an enhancement of high momentum charged kaons produced in B decays. Within the context of a simple, JETSET-inspired model of $b \rightarrow sg$, the analysis has a statistical branching ratio error of approximately 2%. The exclusive rare decay search uses an optimized combination of several tracking and vertexing variables to achieve high efficiency while maintaining low backgrounds from the dominant decay modes. Typical limits are (few $\times 10^{-4}$), including several new and unique limits on B_d and B_s decays to two vector mesons.