EPS-HEP99
Abstract #6-473
Parallel sessions: 6
Plenary sessions: 6

Direct Measurement of A_b at the Z^0 Pole

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

We present a new preliminary measurement of the parity-violating parameter A_b in the $Z \to b\bar{b}$ coupling, using a sample of 550,000 hadronic Z^0 decays collected by the SLD experiment at the SLC. Four analysis techniques are used to achieve b quark-antiquark discrimination: Lepton Tag, Kaon Tag, Momentum Weighted Track Charge, and a new Vertex Charge analysis. This measurement takes advantage of the high polarization of the SLC's electron beam ($\langle P_e \rangle = 73\%$) and excellent vertexing of the SLD to achieve a total error of $\sim 2.5\%$.