

**Measurements of Coherent Damping and Tune Shifts with Amplitude at LEP, A. MUELLER, J. WENNINGER, CERN** - At the LEP electron-positron collider the beam orbit system is able to store the beam positions over 1000 turns following a deflection by a horizontal kicker. A precise analysis of such data for many beam position monitors was used to study the dependence of head-tail damping on beam parameters. The tune dependence on the horizontal amplitude was determined during the decay of the beam oscillation for various LEP optics. This parameter turned out to be an important issue for the LEP high energy optics.