Mixing and CP Violation

Ken Kelley

MIT
CDF Collaboration

May 15, 1998

Abstract

We present results on "flavor tagging" methods in pbar–p collisions at sqrt(s) = 1.8 TeV. These methods are useful for measuring mixing and CP studies in neutral B mesons.

We give special emphasis to "same–side tagging", which exploits a correlation between the flavor of a B meson and some of the nearby particles (e.g. from B** decays).

We discuss how such tagging algorithms have been used to measure Δm and how they can be used to measure CP–violation parameters in B decays at a hadron collider.