

# DESY Seminar

Tuesday, 01.04.2008, 17h

DESY Hörsaal

## B physics at the Tevatron

Joe Boudreau

(University Pittsburgh)

The physics of the bottom quark is a compelling subject, on one hand because its large mass enables theoretical approaches yielding precise predictions for b-flavored hadron properties, and on the other hand because of the large CP violation predicted (and seen) in the B system. Extensive new information on charged and neutral b-mesons from the B factories has had a major impact on B physics in the last decade. The Tevatron experiments CDF and D0, each with approximately  $3 \text{ fb}^{-1}$  on tape, are also now making a big impact. These are the only experiments now producing  $B^0_s$ ,  $B^+_c$ ,  $\Lambda^0_B$ ,  $\Lambda^\pm_B$ ,  $X^-_B$ , and excited b-hadron states. Spectroscopy, lifetimes,  $B^0_s$  mixing, CP violation in the  $B^0_s$  system, and rare B decays enlighten us on a range of topics from QCD to physics beyond the standard model. This talk surveys recent highlights of the CDF and D0 B physics program with an emphasis on the "other" b hadron states.

- Tea and cookies will be served at 16.45h in the lobby
- After the seminar there is a chance for private discussions with the speaker over wine and pretzels