



Contribution ID: 42

Type: **not specified**

## Measurements of CP violation asymmetries in Bhadron decays using top quark events collected by the ATLAS detector in pp collisions at 8 TeV

*Tuesday 20 September 2016 19:10 (10 minutes)*

Top pair events provide a source of  $b\bar{b}$  pairs, which can be used to probe CP violation in heavyflavour mixing and decay. In events where one of the W bosons decays leptonically to an electron or muon, the charge of the W boson can be used to determine unambiguously the flavour charge of the accompanying b quark at the time of its production. In cases where the b also decays semileptonically to a muon, this sample allows to probe two CP asymmetries constructed with the charge signs of the W and the soft muon. The first measurement of the CP asymmetries in  $b\bar{b}$  from top pair decays is hence presented using the data collected with the ATLAS detector during the 8 TeV run of the LHC.

### Summary

**Author:** KEMPSTER, Jacob Julian (Royal Holloway, University of London)

**Presenter:** KEMPSTER, Jacob Julian (Royal Holloway, University of London)

**Session Classification:** Young Scientists Forum

**Track Classification:** Young Scientist Forum