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## **“Test of CP Violation in B-Bar pairs from top quark decay”**

*Saturday 6 August 2016 18:00 (2 hours)*

Top pair events provide a source of  $b\bar{b}$  pairs, which can be used to probe CP violation in heavy-flavour 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.

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