Contribution ID: **57** Type: **Poster**

Measuring the b-jet tagging efficiency using top anti-top events with ATLAS data

Monday 4 June 2012 16:00 (1 hour)

Many physics analyses with the ATLAS detector expect to have jet originating from b-quarks in the final state. Algorithms that allow to identify such jets are thus of great importance and it is crucial to understand their performance with data-driven measurements of efficiencies and fake rates. Since the top quark almost exclusively decays to a W boson and a b-quark, a sample of top anti-top events is ideal for studying the b-tagging performance. Final states containing one or two leptons have been used to measure the b-tagging efficiency, either by counting the number of b-tagged jets or by applying kinematical fit methods to extract a pure sample of b-jets. The calibration methods based on top anti-top events are especially important because they can provide measurements of the b-tagging efficiency also for jets with high momentum.

E-mail Address

dominik.duda@cern.ch

Collaboration Name
Please enter the name of
the collaboration or group
using the acronym, as in:
ABC Collaboration

ATLAS Collaboration

Author: DUDA, Dominik (Fachbereich C / Physik)

Presenter: DUDA, Dominik (Fachbereich C / Physik)

Session Classification: 1D: Poster Session and Coffee Break

Track Classification: Standard Model & Beyond