

## Contribution submission to the conference Karlsruhe 2011

**QCD background estimation from data for  $Z \rightarrow \tau\tau$  search with ATLAS** — •DANIELE CAPRIOTTI, SANDRA KORTNER, and HUBERT KROHA — Max-Planck-Institut für Physik, München, Deutschland

The measurement of Standard Model processes is crucial for understanding the detector performance. One of the main control processes for the evaluation of the reconstruction performance for  $\tau$ -jets and missing transverse energy are  $Z \rightarrow \tau\tau$  decays.

The selection of a high-purity  $Z \rightarrow \tau\tau$  sample, where one of the two  $\tau$ -leptons decays hadronically and the other one leptonically, is challenging due to several orders of magnitude larger QCD background.

We present the selection cuts of a clean sample of signal events as well as the estimation of the QCD background from data.

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