Studies of muons in data and MC - part 2

As part of the Muon Combined Performance group, we'll study the reconstruction of muons in real data (7 TeV!).

A basic goal is measuring the efficiencies of the muon detectors and the matching to tracks in the inner detector, compared to MC simulations. In addition we'd like to understand, via additional investigations of the simulations and data, the various sources of the observed muons (as functions of pt, eta, etc.), such as from heavy-flavor decays, pi/K decays in flight, punch through, and other backgrounds.

The student can work with ROOT ntuples which have been made from various MC and data samples.