

Measurements of heavy flavour production in association with W and Z bosons with the ATLAS detector (20+10min)

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The production of heavy flavour in association with a W or Z boson represent important backgrounds to Higgs and BSM studies and are challenging to calculate in QCD. Several precision measurements were performed using pp data at 7 TeV of integrated as well as differential cross sections. Comparisons are made to a diverse set of state-of-the-art NLO QCD calculations, some of which are interfaced to MC generators for parton showering and hadronization. Z+b, Z+bb and W+b production probe the b-quark production by high-order QCD processes. Cross sections are measured differentially as a function of a diverse set of kinematic variables like the jet multiplicity, transverse momentum or rapidity of the leading bjet or variables describing the kinematics of the di-bjet system. Measurement of W+c production cross section has a unique sensitivity to the strange-quark density, which is poorly known at low x.

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