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Mistag rate calibration using Direct Tag method in pp collisions at $\sqrt{s}=$ 13 TeV with the ATLAS detector WASIKUL ISLAM, ALEXANDER KHANOV, Oklahoma State University, ATLAS COLLABORATION OF CERN COLLABORATION — The efficient identification of jets from bottom quarks (b-jets) is one of the most important techniques for many physics analyses at the Large Hadron Collider, including studies of the Higgs boson, the top quark, and searches beyond the Standard Model. The performance is characterized by b-tagging efficiency (probability to identify a b-jet as such) and the mistag rate (probability to mistakenly accept a non-b-jet).The mistag occurs as a result of finite detector resolution, presence of long-lived particles, and material interactions. As these effects can be different between the experimental data and Monte Carlo (MC) simulation, it is important to measure the b-tagging performance in data and derive the MC correction factors.I will be describing Direct Tag method which is recently developed in the ATLAS collaboration for mistag rate calibration and I will present some of its results using the latest dataset in pp collisions at $\sqrt{s}=$ 13 TeV with the ATLAS detector.

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