

Measurements of W^+/W^- cross-section ratio in pp collisions at STAR

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While the unpolarized valence quark (d and u) distributions are well determined from DIS experiments, their sea quark counterparts, \bar{d} and \bar{u} , are much less constrained, in particular, near the valence region. Measurements of W^+/W^- production ratio in pp collider experiments, such as the STAR experiment at RHIC, are sensitive to the \bar{d}/\bar{u} ratio at leading order at a large Q^2 set by the W mass. Presented in this talk are the latest preliminary results and analysis updates of W^+ and W^- cross-section ratio measurements via lepton-decay tagging, using the STAR pp collision data at a center-of-mass energy of $\sqrt{s} = 510$ GeV collected in 2017, corresponding to an integrated luminosity of 350 pb^{-1} . The measurements cover the mid ($|\eta| < 1$) and intermediate rapidities ($1 < \eta < 2$), probing the \bar{d}/\bar{u} ratio within the proton momentum fraction range of $0.06 < x < 0.4$.