

# The measurement of non-photonic electrons in STAR

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Due to their large masses, charm and bottom quarks, are mostly produced during the initial phase of collisions via gluon fusion. Non-photonic electrons (NPE) are mainly produced by semileptonic decays of D and B mesons, hence the study of NPE in hadron-hadron and ion-ion collisions provides the information about heavy quarks production as well as the medium properties. In order to interpret NPE measurements it is important to determine the relative charm and bottom contribution to NPE spectrum. The measurement of azimuthal correlation between NPE and hadrons in Au+Au collisions can shed light on heavy flavor jet-medium interactions. NPE elliptic flow can be a good proxy to reveal heavy flavor collectivity, which can significantly improve our understanding of the medium thermalization.

This talk presents the recent STAR measurement of non-photonic electrons from p+p collisions at  $\sqrt{s} = 200$  GeV, Au+Au collisions at  $\sqrt{s_{NN}} = 200$  GeV. We will also report the analysis status in d+Au collisions at  $\sqrt{s_{NN}} = 200$  GeV.

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