Dielectrons from Charm and Bottom meson decays in p-Pb collisions at $\sqrt{s_{\text{NN}}} = 5.02$ TeV measured with the ALICE detector

SHINICHI HAYASHI, CNS, University of Tokyo, ALICE COLLABORATION — Electron-positron pairs (dielectrons) are excellent probes for studying the properties of the medium created in high energy heavy-ion collisions. In the intermediate mass region, above 1 GeV/$c^2$, dielectrons from semi-leptonic decays of open heavy flavors are the main contributions to the spectrum. Initial state effects such as gluon shadowing, gluon saturation, and initial state energy loss are very important for heavy quark production. The initial state effects can be investigated by studying proton-nucleus collisions, and the modifications of the transverse momentum and invariant mass spectra of dielectrons with respect to pp give important information on such cold nuclear matter effects in the intermediate mass regions. To access to the intermediate and high mass regions, abundant high $p_T$ electron samples are needed. In the ALICE experiment, the Transition Radiation Detector (TRD) is used for the electron identification above $p > 1$ GeV/$c$ momentum. The TRD also provides an electron trigger to enrich the data samples for the study of charmonium and open heavy flavor production. We will present the status of the dielectron analysis in p-Pb collisions at $\sqrt{s_{\text{NN}}} = 5.02$ TeV.

ShinIchi Hayashi
CNS, University of Tokyo

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