



Contribution ID: 586

Type: Poster

Dielectron measurement from charm and bottom quark decays in p-Pb collisions with the ALICE detector

Tuesday 29 September 2015 16:30 (2 hours)

Electron-positron pairs (dielectrons) are excellent probes for studying the properties of the medium created in high energy heavy-ion collisions.

For dielectron invariant masses above $1 \text{ GeV}/c^2$, the semi-leptonic decays of open heavy flavor hadrons are the main contributions to the spectrum. The invariant mass and pair p_T distributions are expected to be modified from the pp reference due to the energy loss of heavy quarks in the medium and the excess of thermal radiation. A correct understanding of heavy-ion results requires, in addition, an evaluation of initial state nuclear effects, through the study of p-Pb collisions.

To access 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 electron identification at momenta above $p > 1 \text{ GeV}/c$. The TRD also provides an electron trigger to enrich the data samples for the study of charmonium and open heavy flavor production.

We will show the status of the TRD triggered data analysis in p-Pb collisions at $\sqrt{s_{NN}}=5.02 \text{ TeV}$.

On behalf of collaboration:

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Session Classification: Poster Session

Track Classification: Open Heavy Flavors and Strangeness