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Study of dielectron production in p-Pb collisions at $\sqrt{s_{\mathrm{NN}}}$ = 5.02 TeV using Transition Radiation Detector triggers with the ALICE detector

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The primary role of the ALICE experiment at the LHC is to investigate the properties of the deconfined state of matter, the quark-gluon plasma (QGP), created in relativistic heavy-ion collisions. Electron-positron pairs (dielectrons) are excellent probes for studying the properties of the medium. They are produced during the entire evolution of the system and carry the information of the medium since they are not affected by the strong interaction. Correlated electron-positron pairs from semi-leptonic decays of heavy quarks are the dominant source of dielectrons in the intermediate and high mass region above 1 GeV/c^2. Heavy quarks are mainly produced in the initial hard scatterings and are sensitive to the transport properties of the medium.
A correct understanding of heavy-ion results requires, in addition,
an evaluation of initial state nuclear effects, through the study of
p-Pb collisions.
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.
In 2012, ALICE has successfully collected p-Pb collisions with TRD trigger (L_{int} = 1.4 nb^{-1}) , allowing us to extend the invariant mass spectrum of dielectrons to higher pair p_{T} and mass.
In this poster, the current status of the dielectron analysis with the TRD triggered data in p-Pb collisions at $\sqrt{s_{\mathrm{NN}}}$ = 5.02 TeV will be presented.

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