Contribution ID: **800** Type: **Parallel session talk**

Characterisation of heavy-quark propagation and thermalisation in QGP with ALICE

Saturday 20 July 2024 15:02 (17 minutes)

Heavy quarks (charm and beauty) serve as useful probes for investigating the properties of the quark-gluon plasma (QGP) generated in ultrarelativistic heavy-ion collisions. The characterisation of the heavy-quark in-medium energy loss and of their diffusion process within the medium are, in particular, of great interest.

In this contribution, measurements of charm-hadron R_{AA} and of prompt- and non-prompt D meson v_2 coefficient in Pb–Pb collisions at $\sqrt{s_{\mathrm{NN}}} = 5.02$ TeV will be shown, along with comparisons to model predictions that incorporate various implementations of heavy-quark interaction and hadronisation with the QGP constituents. Angular correlations of heavy-flavour decay electrons with charged particles, and their modification in the presence of the QGP will be also presented. The latest findings from the LHC Pb–Pb Run 3 data will be featured, showcasing the performance of v_2 measurements for charm mesons and baryons.

Alternate track

I read the instructions above

Yes

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Session Classification: Heavy Ions

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