Contribution ID: **24** Type: **Talk**

Transport model insights to elliptic flow of charged hadrons in d+Au collisions at $\sqrt{s_{NN}} = 200$ GeV

Friday 18 July 2025 19:05 (20 minutes)

The elliptic flow describes the collective motion of particles produced in heavy-ion collisions, particularly in non-central collisions. This flow arises from the hydrodynamic effect caused by the pressure gradients within the quark-gluon plasma (QGP) medium formed during the collisions. d+Au collisions are particularly important for understanding nuclear effects and the impact of cold nuclear matter on particle production and collective flow. The study of elliptic flow in d+Au collisions challenges traditional perspectives associated with large systems (Au+Au). By examining elliptic flow, we can gain insights on collective behaviour arises in smaller collision systems. This helps us to differentiate between phenomena related to the hadronic medium and those resulting from the QGP.

In this talk, we will present elliptic flow (v_2) in d+Au collisions at $\sqrt{s_{NN}} = 200$ GeV using using a multi-phase transport model (AMPT) model. We will discuss centrality and transverse momentum (p_T) dependence of v_2 in d+Au collisions. The results will be compared with the available experimental results from relativistic heavy-ion collider (RHIC).

Internet talk

Yes

Is this an abstract from experimental collaboration?

No

Name of experiment and experimental site

N/A

Is the speaker for that presentation defined?

Yes

Details

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