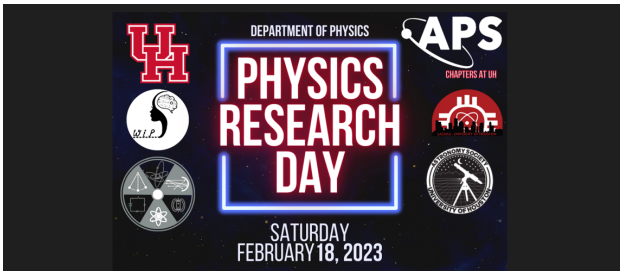

Contribution ID: **42** Type: **Talk**

Elliptic flow measurement in Xe-Xe collisions at \sqrt{S_{NN}}=$5.44Tev$

Saturday 18 February 2023 14:00 (15 minutes)

In heavy-ion collisions at relativistic energies that Large Hadron Collider (LHC) achieves, a hot and dense medium called quark-gluon plasma (QGP) is created. Intriguingly, the collective motion of produced particles forms an almond shape, that is thought to be the signature of QGP formation. Colliding Xe-Xe nuclei in ALICE experiment at the LHC we can determine the initial state of the collision by measuring the flow parameter v_2. In this talk, we present how to measure the elliptic flow coefficient v_2 in Xe-Xe collisions using direct calculations from Q-cumulant method. The centrality dependence of v_2 shows that is increasing from ultra central to mid peripheral collisions because of the initial geometry of the system. For higher order multi-particle cumulants $v_2\{m\}$ we observe the suppression of non flow effects, as well as, the fact that the system is driven by flow fluctuations.

Academic year

3rd year

Research Advisor

Anthony Timmins

Primary author: LIKMETA, Iris (University of Houston (US))

Presenter: LIKMETA, Iris (University of Houston (US))

Session Classification: Parallel Session 1

Track Classification: High Energy Physics, Nuclear Theory and QFT