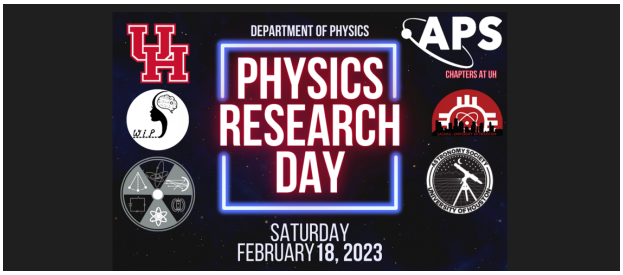

Contribution ID: **6** Type: **Poster**

Two particle correlations of neutral and charged kaons in heavy-ion collisions

Measurements of two particle correlations are sensitive to several characteristics of the medium created in heavy ion collisions. Looking at the correlations of charged and neutral kaons might provide information about the potential formation of disoriented chiral condensates (DCCs). Previous ALICE measurements have indeed shown a strong anti-correlation between charged and neutral kaons, which is qualitatively consistent with the formation of DCCs. The initial goal of this analysis is to perform charged and neutral kaon identification with high purity using the ALICE detector. Once the neutral and charged kaons are cleanly identified, they can be used to construct the two-particle correlation function. We will show measurements of a more differential analysis of these correlations as function of $\Delta\varphi$ and $\Delta\eta$ from Pb-Pb collisions at $\sqrt{s_{\mathrm{NN}}} = 5.02$ TeV.

Academic year

5th year and/or beyond

Research Advisor

Anthony Timmins

Authors: MENON, Anjaly; Prof. TIMMINS, anthony

Presenter: MENON, Anjaly

Session Classification: Poster Session

Track Classification: High Energy Physics, Nuclear Theory and QFT