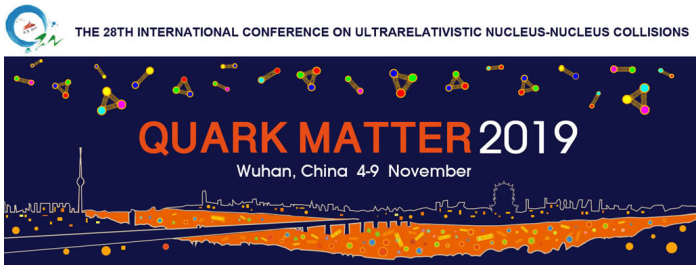

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Differential measurements of global polarization of Λ hyperon in Au+Au collision at $\sqrt{s_{\mathrm{NN}}}$ = 54.4\ GeV\ with STAR

Monday 4 November 2019 17:40 (20 minutes)

The medium generated by non-central nuclear-nuclear collision would have a large angular momentum. Due to the spin-orbit coupling, spin directions of particles formed by recombining quarks from the plasma could reflect the spin direction aligned with the angular momentum of the system. Global polarization is expected to lead to the understanding of the physical properties of QGP because it is caused by the vorticity of the system. Global polarization has been measured from 7.7 GeV to 200 GeV via Λ hyperon decay. In this poster, various differential studies including different event planes and azimuthal dependences of the global polarization measurements in Au+Au collision at 54.4 GeV will be reported.

Author: OKUBO, Kosuke (University of Tsukuba)

Presenter: OKUBO, Kosuke (University of Tsukuba)

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