



Pseudo-gauge dependence of spin polarization in heavy-ion collisions

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The measurement of spin polarization of particles emitted in heavy-ion collisions has opened the possibility for new phenomenological investigations of spin physics in relativistic fluids. This motivates the development of hydrodynamic with spin degrees of freedom. One of the features of this theory is that different choices of the decomposition of orbital and spin angular momentum might give different descriptions. In this talk, I will discuss how observables in a relativistic fluid at local thermal equilibrium are affected by the choice of the stress-energy tensor and the spin tensor. In particular, I will discuss how the predictions of the spin polarization vector of spin 1/2 particles changes in different pseudo-gauges.

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