Contribution ID: **24** Type: **not specified**

Applications of quantum kinetic theory to spin polarization, spin hydrodynamics and spin alignment

We will discuss the recent developments on quantum kinetic theory with collisions and its applications to the local spin polarization and spin alignment. We simulate the local spin polarization by the relativistic hydrodynamics combined with the results derived from quantum kinetic theory. We have discussed the interaction corrections to the local spin polarization. Meanwhile, we also implement the quantum kinetic theory with the moment expansion to derive the spin hydrodynamics in a self-consistent way. At last, we show the application of quantum kinetic theory to the spin alignment for vector mesons.

Primary author: PU, Shi (University of Science and Technology of China)

Presenter: PU, Shi (University of Science and Technology of China)