

Spin polarization in strongly couple fluid

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Recently there has been growing interest in spin polarization in relativistic heavy ion collisions. It is known that spin can be induced by different hydrodynamic gradients. So far most theoretical frameworks for spin polarization is based on quasi-particles, which leads to the understanding that spin polarization comes from modified distribution and modified fluctuation-dissipation relation. By working in the strong coupling limit using holographic fermion in hydrodynamic background, we find that the spin can also be induced by modified spectral function. In particular, we find Landau damping type of excitation gains polarization in the hydrodynamic background.

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