



Contribution ID: 50

Type: **parallel**

## **Polarization energy loss in hot viscous quark-gluon plasma**

The gluon polarization tensor for the quark-gluon plasma with shear viscosity is derived with the viscous chromohydrodynamics. The longitudinal and transverse dielectric functions are evaluated from the gluon polarization tensor, through which the polarization energy loss suffered by a fast quark traveling through the viscous quark-gluon plasma is investigated. The numerical analysis indicates that shear viscosity significantly reduces the polarization energy loss.

**Primary author:** Prof. HOU, Defu (Central China Normal University)

**Presenter:** Prof. HOU, Defu (Central China Normal University)