Temperature dependence of shear viscosity in SU(3)-gluodynamics

Monday, 1 August 2016 14:50 (25 minutes)

This report is devoted to the study of temperature dependence of shear viscosity in SU(3)-gluodynamics. To calculate shear viscosity we measured the correlation function of the energy-momentum tensor $T_{[12]}T_{[12]}$ for a set of temperatures in the region $T/T_c \in (0.9, 1.5)$. The measurements were carried out using multilevel algorithm which considerably improves the accuracy of the data. The results of the calculation allow to determine temperature dependence of the ratio of shear viscosity to the entropy density $\frac{\eta}{s}$.

Primary author: Dr BRAGUTA, Victor (ITEP)
Co-authors: Dr KOTOV, Andrey (ITEP); Mr ASTRAKHANTSEV, Nikita (ITEP)
Presenter: Dr BRAGUTA, Victor (ITEP)
Session Classification: Monday PM
Track Classification: Transport properties and probes