



XXIV QUARK MATTER DARMSTADT 2014

Contribution ID: 21

Type: **Contributed Talk**

Three loop HTL perturbation theory at finite temperature and chemical potential

Tuesday 20 May 2014 11:10 (20 minutes)

We present results of a three-loop hard-thermal-loop perturbation theory (HTLpt) calculation of the thermodynamic potential of a finite temperature and chemical potential system of quarks and gluons. We compare the resulting pressure, energy density, etc., and the diagonal/off-diagonal quark susceptibilities with lattice data. We show that there is good agreement between the three-loop HTLpt analytic result and available lattice data.

Primary author: STRICKLAND, Michael (Kent State University)

Co-authors: Dr ANDERSEN, Jens (Norwegian University of Science and Technology); Dr MUSTAFA, Munshi (Saha Institute of Nuclear Physics); HAQUE, Najmul (Saha Institute of Nuclear Physics); Dr SU, Nan (Bielefeld University)

Presenter: STRICKLAND, Michael (Kent State University)

Session Classification: QCD at high temperature and/or density

Track Classification: QCD at High Temperature and/or Density