Propagation of Heavy Quarks in the QGP medium

The quark-gluon plasma (QGP) is believed to be the state of the universe after a few microseconds of the big bang. This phase has been created at various experimental facilities, such as RHIC at BNL and LHC at CERN. The QGP produced in these experiments is very short-lived due to the confinement properties of Quantum Chromodynamics. Therefore, we rely on the possible signatures. The energy loss of heavy quarks is among the most reliable signatures as they lose energy while passing through the QGP medium. The magnitude of loss depends upon the nature of interaction with the medium. We present the energy loss of charm and bottom quarks within the quasi-particle picture along with the effective kinetic theory approach considering the BGK collisional kernel.