Recent results on transport models

Marcus Bleicher

Institut für Theoretische Physik, Johann Wolfgang Goethe-Universität, Frankfurt am Main, Germany

Contact email: bleicher@th.physik.uni-frankfurt.de

We review current concepts and models used to describe the evolution of the hot and dense matter created in heavy ion collisions at LHC, RHIC and FAIR. To this aim, we will discuss recent extensions of models based on the Boltzmann equation to include a hydrodynamical stage that allows for a consistent treatment of all stages of the reaction. Then we discuss how a dynamical model for the exploration of the critical point of QCD and the phase transition can be constructed and present some first results.