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Strangeness Chemical Equilibration in QGP at RHIC and LHC¹ JEAN LETESSIER², LPTHE, Paris, France, JOHANN RAFELSKI³, University of Arizona, Tucson — We study, in the dynamically evolving QGP fireball formed in relativistic heavy ion collisions at RHIC and LHC, the growth of strangeness yield toward and beyond the chemical equilibrium. We account for the contribution of the direct strangeness production and evaluate the thermal-QCD strangeness production mechanisms. The specific yield of strangeness per entropy, s/S , is the primary target variable. We explore the effect of collision impact parameter, *i.e.*, fireball size, on kinetic strangeness chemical equilibration in QGP. Insights gained in study the RHIC data with regard to the dynamics of the fireball are applied to the study strangeness production at the LHC. We use these results and consider the strange hadron relative particle yields at RHIC and LHC in a systematic fashion. We consider both the dependence on s/S , and participant number dependence.

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