

Strangeness in Quark Matter 2019



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Chemical equilibration of QGP in hadronic collisions

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We performed state-of-the-art QCD effective kinetic theory simulations of chemically equilibrating QGP in longitudinally expanding systems. We find that chemical equilibration takes place after hydrodynamization, but well before local thermalization. By relating the transport properties of QGP and the system size we estimate that hadronic collisions with final state multiplicities $dN_{ch}/d\eta \sim 10^2$ live long enough to reach approximate chemical equilibrium for all collision systems. Therefore we expect the saturation of strangeness enhancement to occur at the same multiplicity in proton-proton, proton-nucleus and nucleus-nucleus collisions.

References: arXiv:1811.03040, arXiv:1811.03068

Collaboration name

Track

Strangeness and Light Flavour

Primary author: MAZELIAUSKAS, Aleksas (Universität Heidelberg)

Co-author: KURKELA, Eero Aleks (CERN)

Presenter: MAZELIAUSKAS, Aleksas (Universität Heidelberg)

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