Quark Matter 2015 - XXV International Conference on Ultrarelativistic Nucleus-Nucleus Collisions



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(Anti-)strangeness production in heavy-ion collisions

Tuesday, 29 September 2015 16:30 (2 hours)

We study the production of (anti-) strange and multi-strange hadrons in heavy-ion collisions from FAIR/NICA to LHC energies within the Parton-Hadron-String Dynamics (PHSD) microscopic transport approach, which contains the partonic and hadronic dynamics. By showing the channel decomposition for the strangeness production we demonstrate how with increasing energy the production in the QGP dominates the hadronic production. We observed traces from the QGP by looking at a verity of 'bulk' observables like the excitation functions of particle yields, pt- and rapidity distributions, centrality dependencies of yields, \langle pt \rangle etc. At RHIC energies strange and anti-strange hadrons are produced at mid-rapidity with the same amount, while with decreasing energy the particles dominate more and more over antiparticles.

On behalf of collaboration:

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