Strangeness in Quark Matter 2016



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Strangeness Production in Au+Au collisions at 1.23 AGeV measured with HADES

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In Au+Au collisions at 1.23A~GeV incident energy all particles carrying strangeness are produced below their respective free nucleon-nucleon threshold. As a consequence, the production cross section is very sensitive to medium effects like momentum distributions, two- or multi-step collisions and modification of the in-medium spectral distribution of the produced states. For the first time at such low energies, K_S^0 mesons and Λ hyperons have been reconstructed.

In total 7.3 Billion of the 40% most central Au(1.23 GeV per nucleon)+Au collisions have been analyzed for this investigation. The data has been recorded with HADES and a substantially improved reconstruction method has been employed to reconstruct the hadrons with high purity in a wide phase space region. In this contribution we present differential, acceptance and efficiency corrected yields and comparisons of the preliminary results to transport models and SHM.

On behalf of collaboration:

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