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Type: **Parallel Talk**

Sub-threshold strangeness production measured with HADES

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At energies below $\sqrt{s_{NN}} \approx 2.55$ GeV, strange quarks can not be produced in binary nucleon-nucleon collisions because of the higher production threshold of the lightest hadrons carrying strangeness. Hence, the investigation of sub-threshold strangeness production in heavy-ion collision is one of the most promising probes, to access the properties of the created system, as the missing energy must be provided by the latter one.

For the first time, a nearly complete set of strange particles has been reconstructed in the 40% most central Au+Au collisions at 1.23A GeV. The data sample includes multi-differential representations of charged and neutral Kaons, Lambdas and Phi-mesons.

We observe a stronger than linear and universal scaling of all strange hadrons yields with increasing centrality, which does not reflect the different nucleon-nucleon thresholds of the various hadrons carrying strangeness. The data are confronted with various phenomenological approaches.

Content type

Experiment

Collaboration

HADES

Centralised submission by Collaboration

Presenter name will be specified later

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