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Strangeness production at SIS energies

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The production of strange particles in heavy-ion collisions is enhanced compared to elementary reactions with particularly interesting results on the ϕ meson production close to the threshold by the HADES collaboration at GSI-SIS energies. In this talk, SMASH (Simulating Many Accelerated Strongly-interacting Hadrons), a new hadronic transport approach designed to describe the non-equilibrium evolution of heavy-ion collisions, is applied to investigate the production of strange particles. Two different mechanisms are discussed: one based on resonances and another one using forced canonical thermalization. The resonance framework is constrained by experimental data from elementary collisions and can describe strangeness production in small systems. To describe large systems, in-medium effects may be important.

Content type

Theory

Collaboration

Centralised submission by Collaboration

Presenter name already specified

Author: Mr STEINBERG, Vinzent (Frankfurt Institute for Advanced Studies)

Co-authors: Dr LI, Feng (Frankfurt Institute for Advanced Studies); Mr STAUDENMAIER, Jan (Goethe University Frankfurt (FIAS)); OLIINYCHENKO, Dmytro; Ms ERKINER, Ömür (Goethe University Frankfurt); Prof. PETERSEN, Hannah (Goethe University Frankfurt, FIAS, GSI)

Presenter: Mr STEINBERG, Vinzent (Frankfurt Institute for Advanced Studies)

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