

XVII Polish Workshop on Relativistic Heavy-Ion Collisions: Phase diagram and Equation of State of strongly interacting matter



Contribution ID: 3

Type: **not specified**

Isospin breaking in kaon multiplicities in heavy-ion collisions: status and consequences

Saturday 14 December 2024 14:45 (25 minutes)

The NA61/SHINE collaboration recently reported an excess of charged versus neutral kaons that signals an unexpectedly large breaking of the isospin symmetry. Similar excesses were also present in previous experiments, but with larger errors. Models for hadron productions in heavy ion collisions systematically underestimate the measured charge-to-neutral kaon ratio. In this talk, we report on the present status of theoretical efforts for determining the charged-neutral kaon ratio. We also present a simple ‘counting’ model highlighting possible consequences of the isospin breaking.

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Session Classification: Session 2