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Type: **Parallel Talk**

## Perspectives on strangeness physics with the CBM experiment at FAIR

*Tuesday 15 May 2018 16:40 (20 minutes)*

The main goal of the CBM experiment at FAIR is to study the behavior of nuclear matter at very high baryonic density in which the transition to a deconfined and chirally restored phase is expected to happen. One of the promising signatures of this new states are the enhanced production of multi-strange particles. The CBM detector is designed to measure such rare diagnostic probes with unprecedented precision and statistics. Important key observables are the production of hypernuclei and dibaryons. Theoretical models predict that single and double hypernuclei, and heavy multi-strange short-lived objects are produced via coalescence in heavy-ion collisions with the maximum yield in the region of SIS100 energies. The discovery and investigation of new hypernuclei and of hyper-matter will shed light on the hyperon-nucleon and hyperon-hyperon interactions.

Results of feasibility studies of these key CBM observables in the CBM experiment are discussed.

### Content type

Experiment

### Collaboration

CBM

### Centralised submission by Collaboration

Presenter name already specified

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