Contribution ID : **414** Type : **Plenary/section talk**

New results of the Clusters and Hypernuclei formation study within PHQMD Model

Friday, 26 October 2018 16:35 (15)

We present a new results on the dynamical modeling of cluster formation with the new combined PHQMD+FRIGA model at Nuclotron and NICA energies. The FRIGA clusterisation algorithm, which can be applied to the n-body transport approaches, is based on the simulated annealing technique to obtain the most bound configuration of fragments and nucleons. The PHQMD+FRIGA model is able to predict isotope yields as well as hyper-nucleus production. Based on present predictions of the combined model we study the possibility to detect such clusters and hypernuclei in the BM@N and MPD/NICA detectors.

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Session Classification : Heavy Ion Physics

Track Classification : Nuclear physics: heavy ion