Contribution ID : **132**   Type : **Oral talk**

A Monte Carlo study of the MPD performance for hyperon selection using machine learning techniques

Friday, 25 October 2024 12:45 (15)

Study of the strangeness production in heavy-ion collisions is one the primary goals of the MPD experiment at the NICA collider. To collect sufficient statistics of (multi)strange particle decays, their efficient selection from the high combinatorial background is required. Presumably, solution of such a task can greatly benefit from multivariate analyses based on machine learning techniques. In this work, results of application of the machine learning approaches, implemented in the TMVA package of the ROOT framework, are presented for Monte Carlo data event samples of heavy-ion collisions and compared with the results of the topological cuts selection method.

Primary author(s) : ZINCHENKO, Alexander (Joint Institute for Nuclear Research (RU)); SUVARIEVA, Dilyana; KOLESNIKOV, Vadim (JINR); VASENDINA, Veronika

Presenter(s) : SUVARIEVA, Dilyana

Session Classification : HEP Experiment

Track Classification : High energy physics: experiment