

Particle Identification with MPD-TPC tracks

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Content

The Multi-Purpose Detector (MPD) is at Nuclotron Ion Collider Facility (NICA) of Joint Institute for Nuclear Research (JINR). An important part of the experiment is the particle identification analysis. The idea is to determine from reconstruction, the particles that interact with each MPD sub-detector. This particle identification (PID) is made using statistical techniques (Bayesian method) from the MPD tracks. The data has some features which can be associated with objects and classes from data science techniques. In this work Generalized Linear Models in R language is used as a first approach with machine learning in the framework of *mpdroot* for simulation and MPD tracks reconstruction.

Area of contribution

Simulations

Primary author(s) : MALDONADO GONZÁLEZ, Julio César (Universidad de Autónoma de Sinaloa)

Presenter(s) : MALDONADO GONZÁLEZ, Julio César (Universidad de Autónoma de Sinaloa)

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