

D^\pm measurement in Heavy-Ion Collisions at $\sqrt{s_{\text{NN}}} = 200$ GeV at the STAR experiment

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Measurements of open heavy flavour mesons can be used to study the proprieties of the, so called, quark-gluon plasma produced in heavy-ion (A+A) collisions. The STAR collaboration searches for differences in particle production between the A+A and p+p collisions via the nuclear modification factor. In the low-pt region, D^\pm mesons cannot be directly reconstructed with traditional methods due to the high combinatorial background in A+A collisions. Therefore, machine learning methods in multivariate data analysis are used to discriminate between signal and background thanks to the TMVA package implemented within the ROOT framework.

Primary author: MORAVCOVÁ, Zuzana (CTU FNSPE)

Presenter: MORAVCOVÁ, Zuzana (CTU FNSPE)

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