

Machine Learning Algorithms for Pattern Recognition with the PANDA Barrel DIRC

Tuesday, 29 October 2024 11:00 (15 minutes)

Using the recent advances in machine learning (ML) algorithms, especially in the area of image recognition, we plan to develop new ML particle identification algorithms for the PANDA Barrel DIRC and compare the results to conventional reconstruction methods.

First network implementations show a performance comparable to conventional methods on a limited phase space. As a next step, we are investigating ways to extend the phase space, while also experimenting with different data input structures and network types to optimize the training process and increase PID performance.

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Session Classification: Session