Contribution ID: **76**   Type: **Talk**

Application of Deep Machine Learning for the PANDA Software Trigger

Thursday, 26 August 2021 17:30 (30 minutes)

Deep machine learning methods have been studied for the PANDA software trigger with data sets from full Monte Carlo simulation using PandaRoot. Following the first comparison of multiclass and binary classification, the binary classification has been selected because of higher signal efficiencies. In total seven neural network types have been compared and the residual convolutional neural network with 4 residual blocks has been chosen. The results of optimized neural networks and those of the conventional method have been compared, showing an efficiency gain of up to 140% for the deep machine learning method. The flatness quality parameters on Dalitz plots and theta-phi projections have been obtained.

Is this abstract from experiment?

Yes

Name of experiment and experimental site

PANDA, https://panda.gsi.de/

Is the speaker for that presentation defined?

Yes

Details

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Internet talk

Yes

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