

Machine Learning @CREDO

Wednesday, January 17, 2024 9:50 AM (30 minutes)

The recent, ongoing as well as planned CREDO ML research activities will be discussed. So far CREDO ML focused on the analysis of individual cosmic ray events including the filtering of artifacts and hardware noise and attempts to associate event shapes with particular particle types. In terms of ML methodologies these were supervised binary and multi-class problems, respectively. We also applied non-supervised schemes to extract the most representative features of events or isolate outliers and novelties. The projects recently undertaken focus on generative models which enable the modelling of collective cosmic ray phenomena like Extensive Air Showers, in particular studying particle distributions or unfolding detector effects.

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