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New Machine Learning Developments in ROOT/TMVA

Monday 9 July 2018 11:15 (15 minutes)

In this talk, we will describe the latest additions to the Toolkit for Multivariate Analysis (TMVA), the machine learning package integrated into the ROOT framework. In particular, we will focus on the new deep learning module that contains robust fully-connected, convolutional and recurrent deep neural networks implemented on CPU and GPU architectures. We will present performance of these new libraries on benchmark datasets from high-energy physics. Additionally, we will discuss new developments in parallelization, cross-validation, regression and unsupervised learning and new interfaces to external machine learning frameworks, such as Tensorflow and scikit-learn.

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