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MLaaS4HEP: Machine Learning as a Service for HEP

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Machine Learning is increasingly used in many fields of HEP and will give its contribute in the upcoming High-Luminosity LHC (HL-LHC) program at CERN. The raising of data produced needs new approaches to train and use ML models. In this presentation we discuss the Machine Learning as a Service (MLaaS) infrastructure, that allows to read data directly in the ROOT format exploiting the World-Wide LHC Grid (WLCG) infrastructure for remote data access, and provide pre-trained models via HTTP protocol. In particular, we demonstrate the usage of MLaaS solution for a concrete physics use-case based on $t\bar{t}$ Higgs analysis. We provide some details on this particular use-case and a measure of the performances.

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