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Machine learning at LHCb[1]

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The use of machine learning (ML) has become ubiquitous at the LHCb experiment, producing sizable improvements in physics performance. I will discuss the use of ML in the real-time analysis/trigger system, including for event classification and reconstruction. I will also discuss the use of ML for particle identification, offline candidate selection, etc. A critical aspect of the use of ML at LHCb involves performing data-driven calibration/validation of the response of each algorithm, which will be discussed in the context of several examples.

[1]NSF