Machine learning at LHCb$^1$
MIKE WILLIAMS, MIT

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