

# Realtime reconstruction: Machine learning in reconstruction at LHC

*Wednesday 6 November 2024 16:00 (40 minutes)*

The Large Hadron Collider (LHC) at CERN pushes the boundaries of particle physics, generating data at unprecedented rates and requiring advanced computational techniques to process information in real time. While experimental environments between LHC experiments can differ, common challenges can be identified in the area of real-time reconstruction including the use of specialized trigger systems, machine learning techniques for fast data reduction, and GPU/FPGA-accelerated architectures that allow efficient processing within microsecond latencies. This talk will cover a subset of the most recent ML applications for realtime reconstruction at the LHC experiments.

## Track

**Presenter:** AKAR, Simon (University of Cincinnati (US))

**Session Classification:** Plenary talks