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# Anomaly detection for data quality monitoring of the CMS detector

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Ensuring the quality of data in large HEP experiments like CMS at the LHC is of primary importance to ensure solid physics results. Well established Data Quality Monitoring (DQM) and Data Certification (DC) procedures at CMS presently rely on the visual inspection of a set of reference histograms providing a concise overview of the detector status and performance. Besides the required person-power, the main limitation of such procedures is the coarse time granularity, potentially hiding transient issues. In this contribution we will discuss recent developments of automatised DQM and DC workflows using autoencoders, where models specifically conceived for different CMS sub-detectors can spot detector anomalies with high accuracy and fine time granularity.

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