Abstract
This Technical Design Report (TDR) for the High-level Trigger (HLT), Data Acquisition (DAQ) and Controls of the ATLAS experiment builds on the earlier documents published on these systems: Trigger Performance Status Report, DAQ, EF, LVL2 and DCS Technical Progress Report, and High-Level Triggers, DAQ and DCS Technical Proposal. Much background and preparatory work relevant to this TDR is referenced in the above documents. In addition, a large amount of detailed technical documentation has been produced in support of this TDR.

These documents are referenced in the appropriate places in the following chapters.
This paper describes the data acquisition and high level trigger system of the ATLAS experiment at the Large Hadron Collider at CERN, as deployed during Run 1. Data flow as well as control, configuration and monitoring aspects are addressed. An overview of the functionality of the system and of its performance is presented and design choices are discussed. Many UC-authored scholarly publications are freely available on this site because of the UC's open access policies. Let us know how this access is important for you.

1 Introduction. 2 Description of the design and implementation of the DAQ/HLT system. 3 Results of performance tests and observations from data taking. 4 Discussion of design and technology choices. 5 Conclusions and outlook.