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The ATLAS Muon, Electron and Photon Trigger Performance

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Events containing muons, electrons or photons in the final state are an important signature for many analyses being carried out at the Large Hadron Collider (LHC), including both standard model measurements and searches for new physics. To be able to study such events, it is required to have an efficient and well-understood trigger system. The ATLAS trigger consists of a hardware based system (Level 1), as well as software based reconstruction (High Level Trigger). To cope with ever-increasing luminosity and more challenging pile-up conditions at the LHC, several improvements have been implemented to keep the trigger rate low, while still maintaining high efficiency. We will present an overview of how we trigger on muons, electrons and photons, recent improvements, the performance of these triggers in Run-2 data and the improvements planned for Run-3.

Consider for promotion

No

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