

Commissioning of the ATLAS reconstruction software with first data

Looking towards first LHC collisions, the ATLAS detector is being commissioned using all types of physics data available: cosmic rays and events produced during a few days of LHC single beam operations. In addition to putting in place the trigger and data acquisition chains, commissioning of the full software chain is a main goal. This is interesting not only to ensure that the reconstruction, and monitoring chains are ready to deal with LHC physics data, but also to understand the detector performance in view of achieving the physics requirements. The recorded data have allowed us to study the ATLAS detector in terms of efficiencies, resolutions, channel integrity, alignment and calibrations. They have also allowed us to test and optimize the sub-systems reconstruction as well as some combined algorithms, such as combined tracking tools and different muon identification algorithms. The status of the integration of the complete software chain will be presented as well as the data analysis results.

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Track Classification: Poster session