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An Event Building scenario in the trigger-less PANDA experiment

Monday 14 October 2013 16:45 (20 minutes)

The PANDA experiment will be running up to 2.10ˆ7 antiproton-proton
collisions per second at energies reaching 15 GeV.
The lack of simple features distinguishing the interesting events from background,
as well as strong pileup of events' data streams make the use of a
hardware trigger impossible. As a consequence the whole data stream of
about 300 GB/s has to be analyzed online, i.e: tracking, vertex finding, particle identification and event building.

The GEM Tracker covers polar angles from 4 to 20 degrees
in the forward direction, and can be used for the event
building in a large fraction of events. In this work the analysis
chain and the implemented algorithms will be presented. Moreover,
the event builder prototype based on GEM Tracker data will be presented.

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Session Classification: Data Acquisition, Trigger and Controls

Track Classification: Data acquisition, trigger and controls