

## **Track momentum discrimination using cluster width in silicon strip sensors for SLHC.**

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The cluster width of a particle crossing a silicon strip (mini strip) detector can be exploited to measure its transverse momentum when the strips are parallel to the B field. This suggests the discrimination of the clusters widths to filter the majority of low momentum particles.

Once performed directly on the detectors, such discrimination can be used both for low level trigger (L-1,L-2) and for data reduction. This approach is discussed in the context of a first level trigger based on Tracker for SLHC.

The quality of the measurements and their discrimination capability are discussed with respect to the geometry of the sensors and to the detectors layout. Electronics issues and constraints are also reviewed.

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