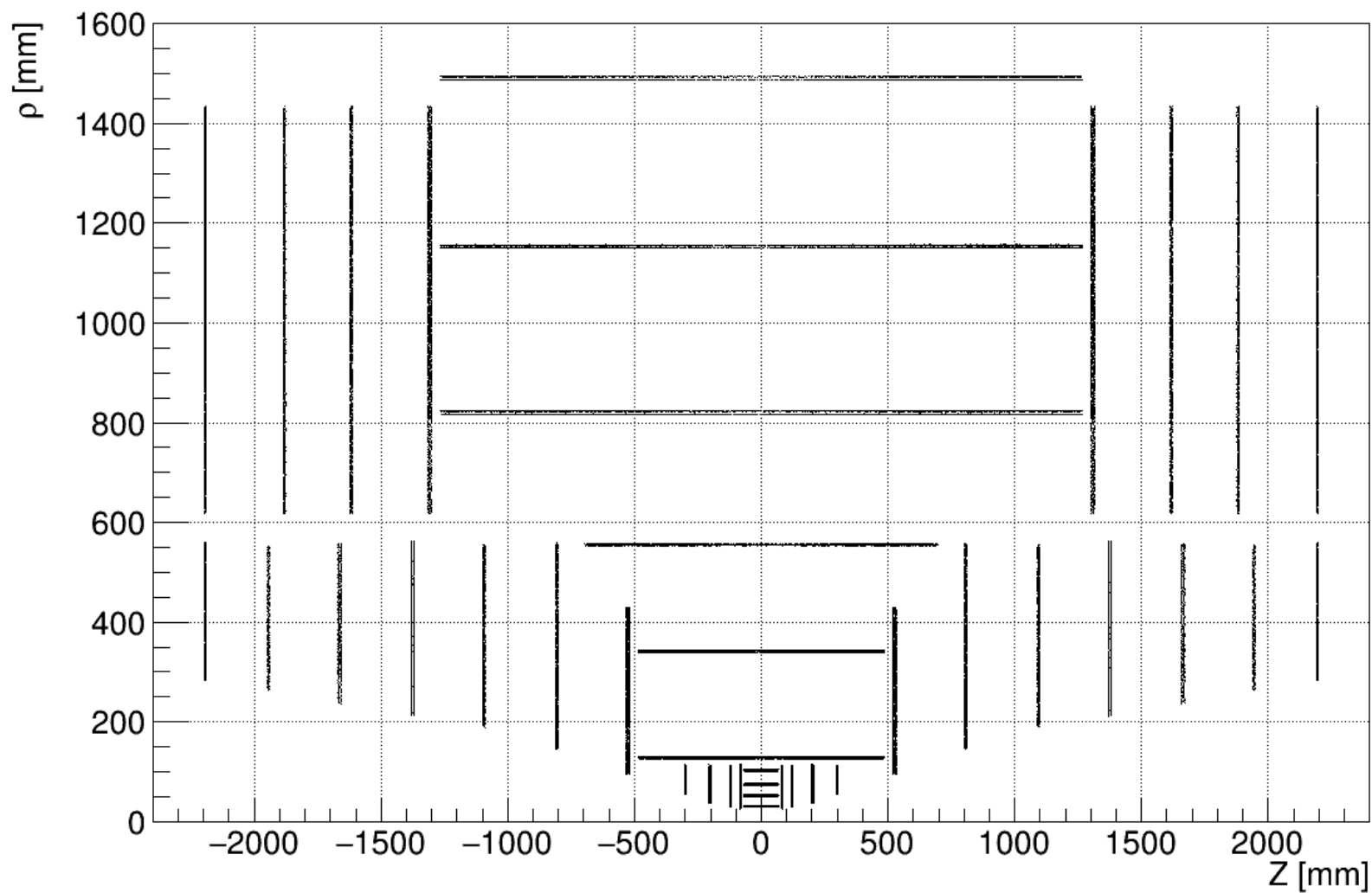


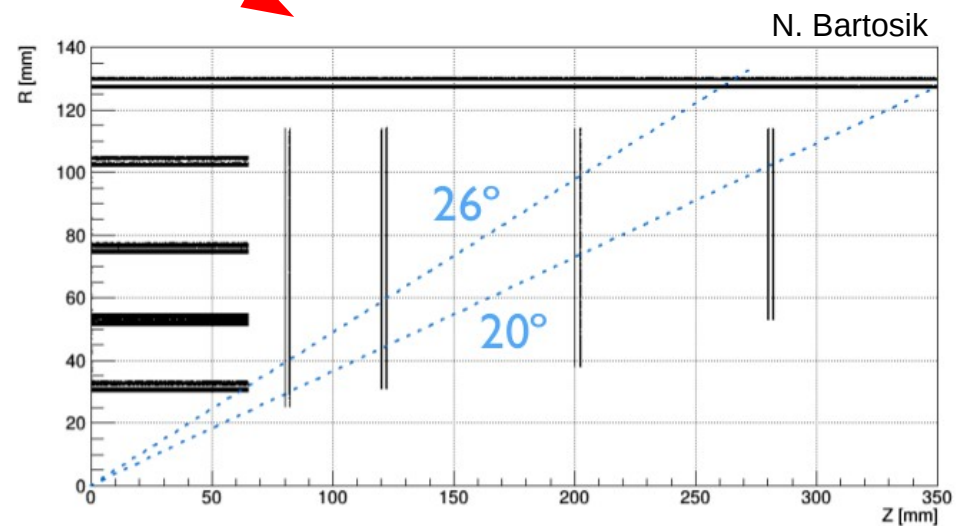
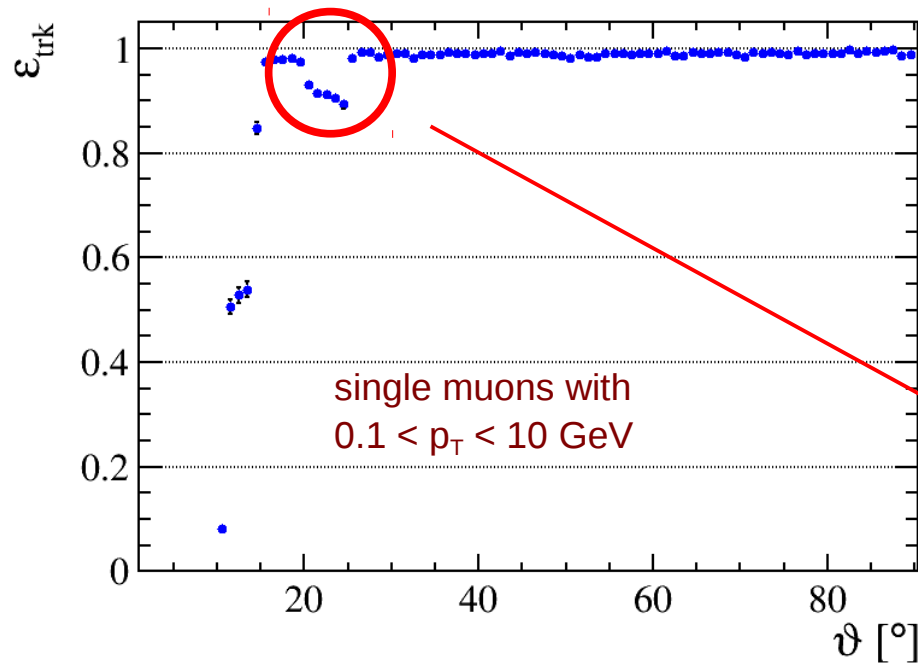
Towards a baseline Muon Collider tracking detector

N. Bartosik and M. Casarsa

Tracker layout



Tracking efficiency vs ϑ

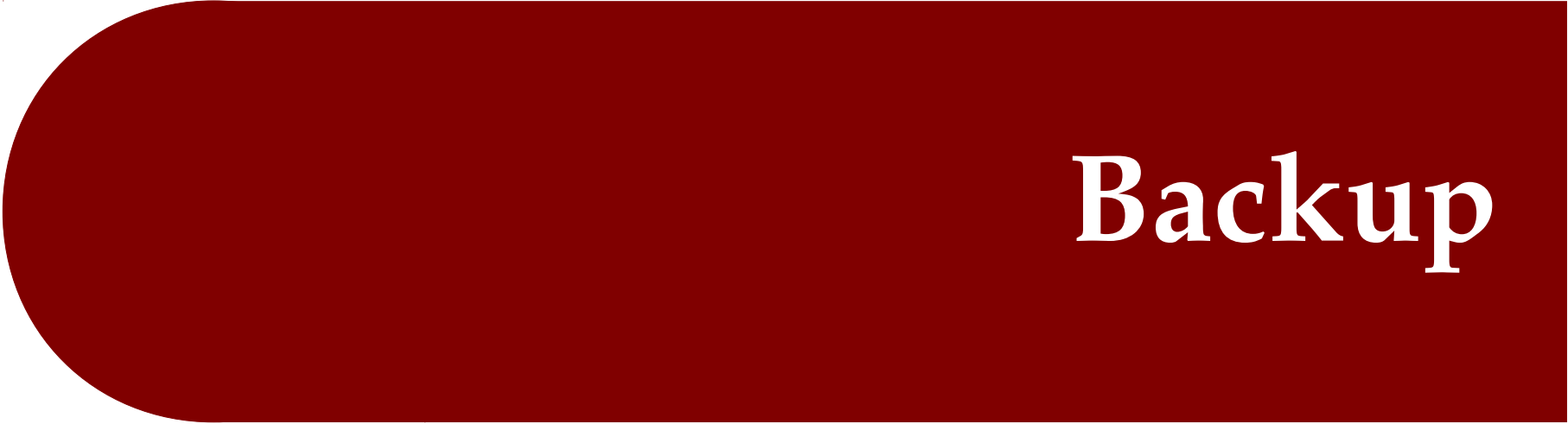


Si sensors specs

	Vertex Detector	Inner Tracker	Outer Tracker
granularity	?	?	?
spatial resolution [μm]	5 (3 on first layer)	10	10
timing resolution [ps]	30	60	60

Solenoid magnetic field

- Currently set at CLIC's value: 4.0 T.
- But the BIB bunch crossing we are using was generated with a detector magnetic field of 3.57 T (old ILCROOT framework).

A dark red rounded rectangle with a rounded left end and a straight right end, spanning horizontally across the upper portion of the slide.

Backup

[VXD]

@Collections : VXDTrackerHits, VXDEndcapTrackerHits

@Parameters : MaxCellAngle : 0.007; MaxCellAngleRZ : 0.007; Chi2Cut : 100; MinClustersOnTrack : 4; MaxDistance : 0.024; SlopeZRange: 10.0; HighPTCut: 1.0;

@Flags : HighPTFit

@Functions : CombineCollections, BuildNewTracks

[Tracker]

@Collections : ITrackerHits, OTrackerHits, ITrackerEndcapHits, OTrackerEndcapHits

@Parameters : MaxCellAngle : 0.025; MaxCellAngleRZ : 0.05; Chi2Cut : 100; MinClustersOnTrack : 4; MaxDistance : 0.009; SlopeZRange: 10.0; HighPTCut: 0.0;

@Flags : HighPTFit, VertexToTracker, RadialSearch

@Functions : CombineCollections, ExtendTracks