

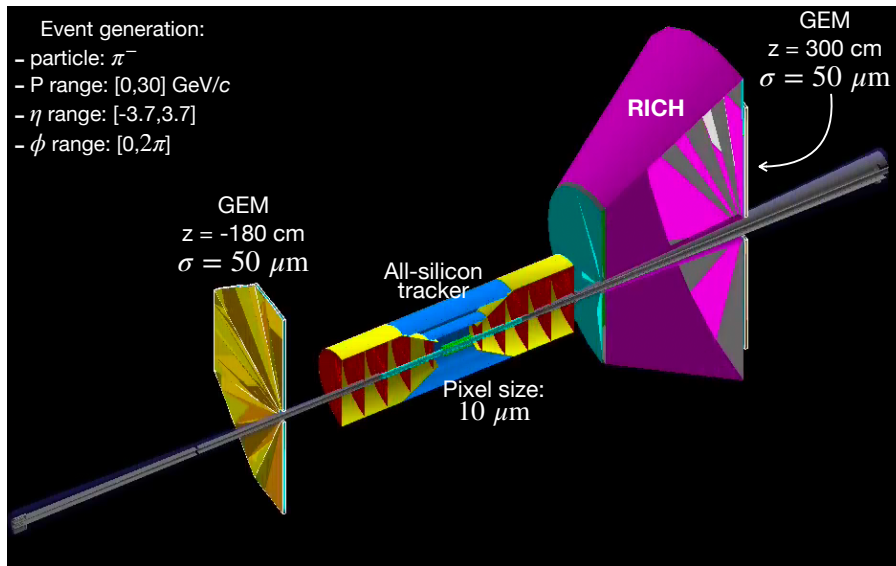
ATHENA tracking WG meeting

29 June 2021

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All-silicon

B-0.0, P-0.0, N-0.0



Silicon

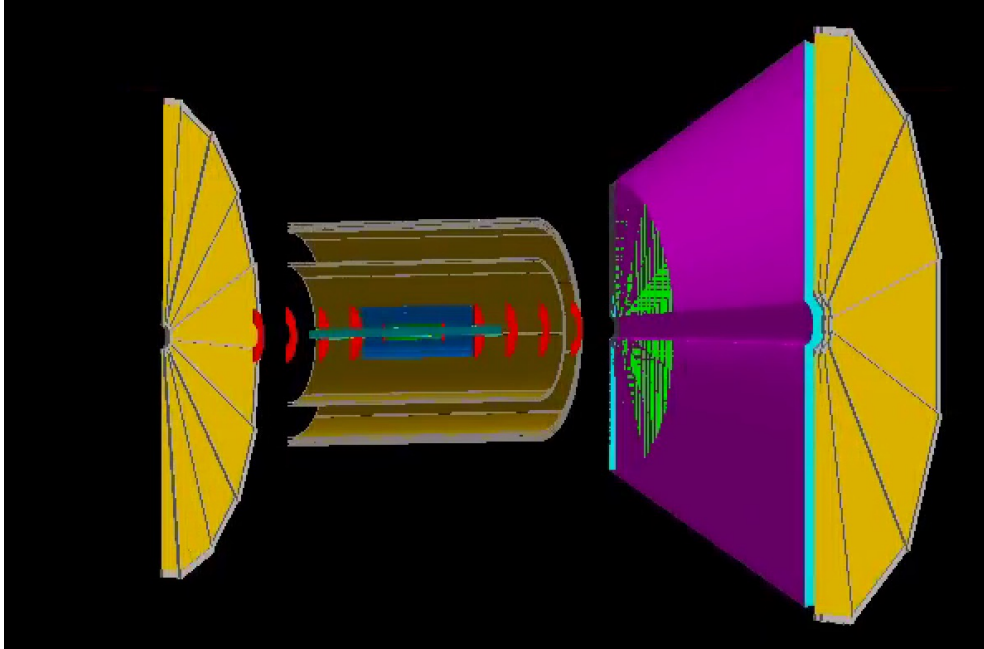
2 vertexing layers, 0.05% X/X0
2 + 2 barrel layers, 0.55% X/X0
5 disks per side, 0.24% X/X0
10 um pixel pitch

GEM (end-caps)

1 on N side, 1 on P side
0.4% X/X0
250 um R
50 un Rphi

Hybrid concept

B-1.0, P-1.0, N-1.0



Silicon

3 vertex layers, 0.05% X/X_0
2 barrel layers, 0.55% X/X_0
5 disks per side, 0.24% X/X_0
10 μm pixel pitch

Micromegas (barrel)

2 + 3 layers
150 μm in z
150 μm R_{phi}
0.4% X/X_0

GEM (end-caps)

1 on N side, 2 on P side
0.4% X/X_0
250 μm R
50 in R_{phi}

Benchmark figures

- dp/p vs p
- dp_T/p_T vs p_T
- Pointing resolution transverse and longitudinal
- Angular and position resolution at mid-point of PID
 - Start with $z = +220$ cm
- Material scan in eta and phi

Note:

- Make sure 2 μ m of gold is added to the beam pipe
- B-field from 7 May 2021 (Magnet: Solenoidal Configuration)
- Please report in two weeks from now