

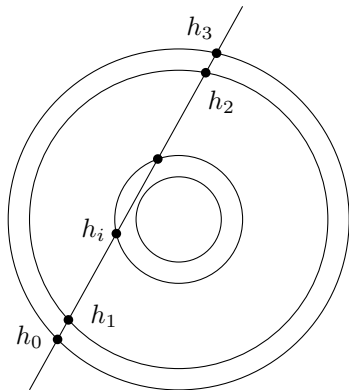


# Reconstruction of Cosmics in Mu3e

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# Algorithm



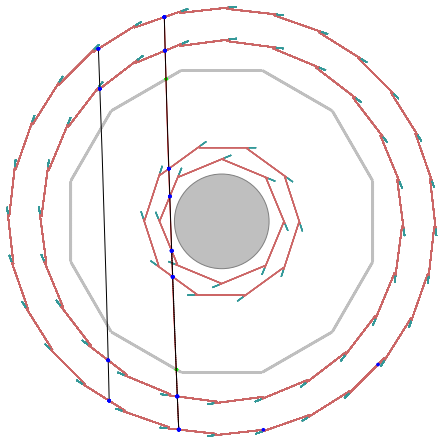
- Simulate with mode = 30 (cosmic)
- Reconstruct with '--cosmic' and '--conf trirec\_cosmic.conf'

1. Make 4-hit tracks using hits in 2 outer layers:

- Combine 3 hits ( $h_0$ ,  $h_1$  and  $h_2$ )
  - $y_0 < y_1 < y_2$
  - $r_T > 1000$  mm
- Add hit  $h_3$  ( $y_2 < y_3$ )

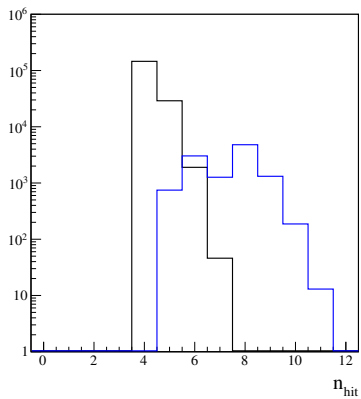
2. Add additional hits ( $h_i$ ) from 2 inner layers

# Event

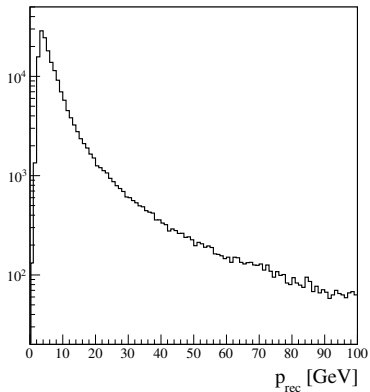


- Track in central (8 hits) and recur (4 hits) stations
- Notice fibre hits

Number of hits:



Reconstructed momentum:



Relative momentum resolution:

