

Some news

12/07/24

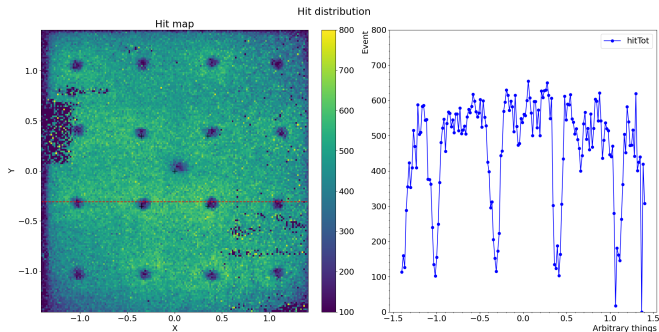
V2 and V3 processing :

- ▶ New variables
- ▶ New tracking (simpler)
- ▶ Rough alignment of xM, yM an their related variables

New variables :

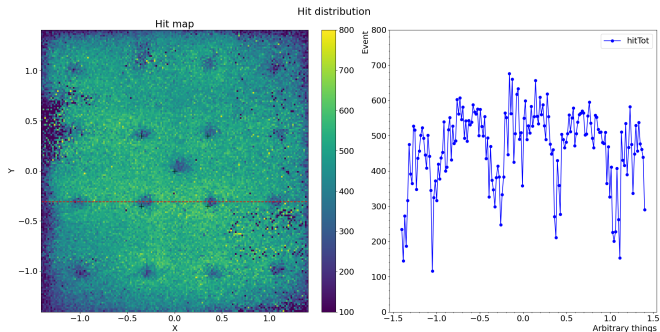
- ▶ hit[0-15]Cor, hitTotCor : Hits with dark noise removed
- ▶ hitMax, hit2Max, hit3Max, hit4Max : sum of the 1,2,3,4 maximum hits in an event, with their Cor versions

Algo 0 : Least square algorithm using the 6 DWC chambers
Run 50, pion, troll 1



Hit Map using $z = \text{middle of the DWC}$ (x_M, y_M in the tuple)

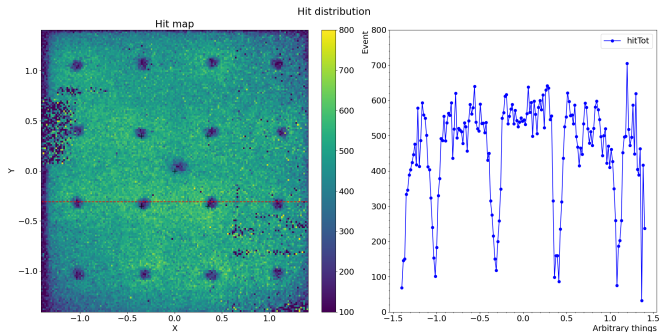
Algo 0 : Least square algorithm using the 6 DWC chambers
Run 50, pion, troll 1



Hit Map using $z = \text{exit of Grainita}$

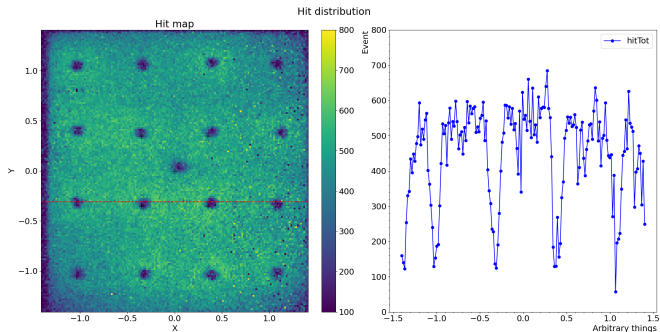
Tracking

Algo 3 : Use the 6 DWC chambers, assume perfect parallel beam along z
Run 50, pion, troll 1



Hit Map using $z = \text{middle of the DWC}$ (x_M, y_M in the tuple)

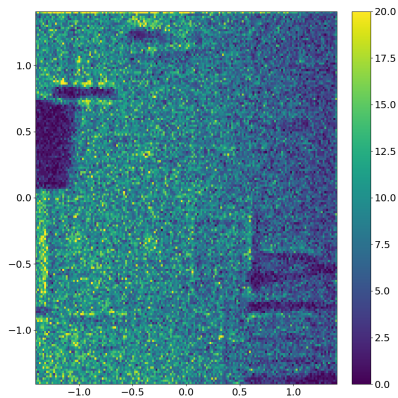
Algo 4 : Use the 2+2 DWC chambers, assume perfect parallel beam along z
Run 50, pion, troll 1



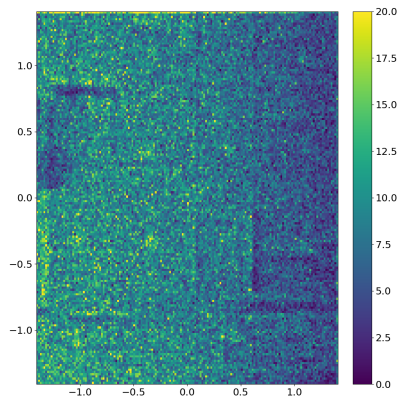
Hit Map using $z = \text{middle of the DWC}$ (x_M, y_M in the tuple)

Track density

Run 50, pion, troll 1



Algo 3



Algo 4

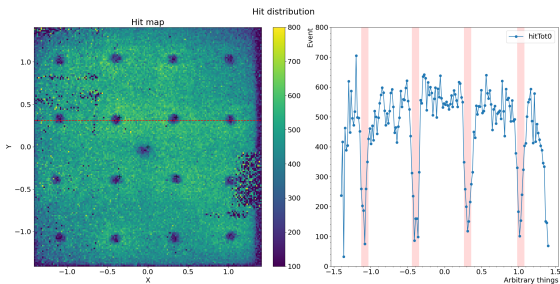
New variable

- ▶ New variable : diffTrack2
- ▶ Definition :

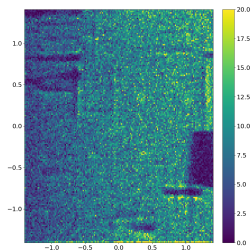
$$\text{diffTrack2} = \frac{(x_1 - x'_1)^2 + (y_1 - y'_1)^2 + (x_2 - x'_2)^2 + (y_2 - y'_2)^2 + (x_3 - x'_3)^2 + (y_3 - y'_3)^2}{6 \cdot (250 \mu\text{m})^2}$$

- ▶ Where the prime (') denote the expected position derived from the tracking on the DWC planes
- ▶ Need to be adapted to algo4

No cut

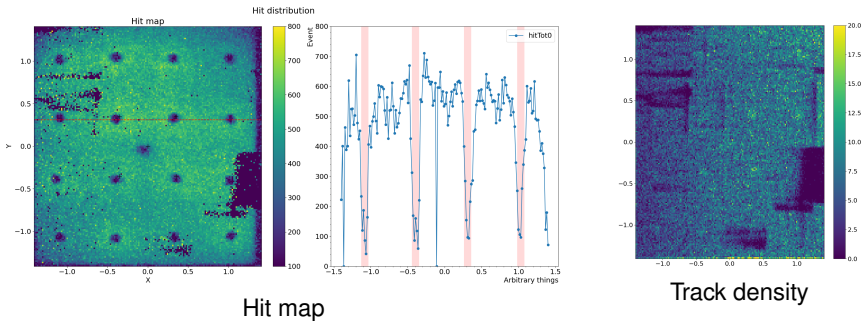


Hit map

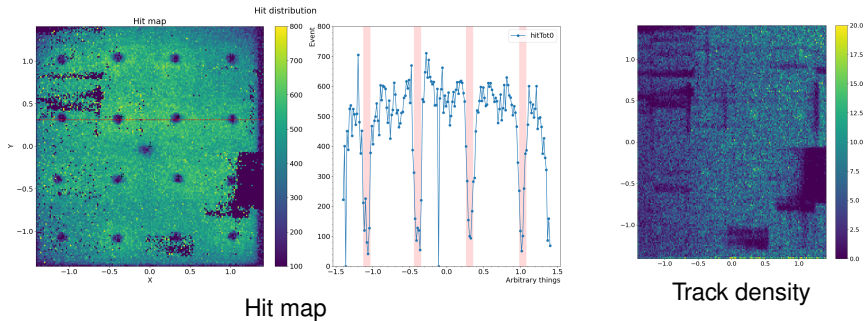


Track density

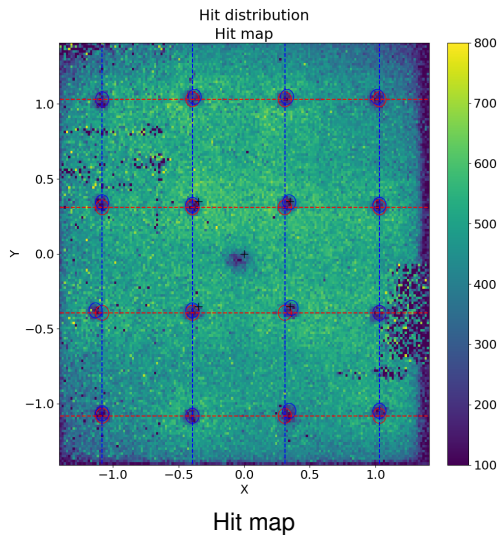
cut < 1 (250 μ m)



cut < 0.5 (125 μ m)



Finding the fibre position



Finding the fibre position

