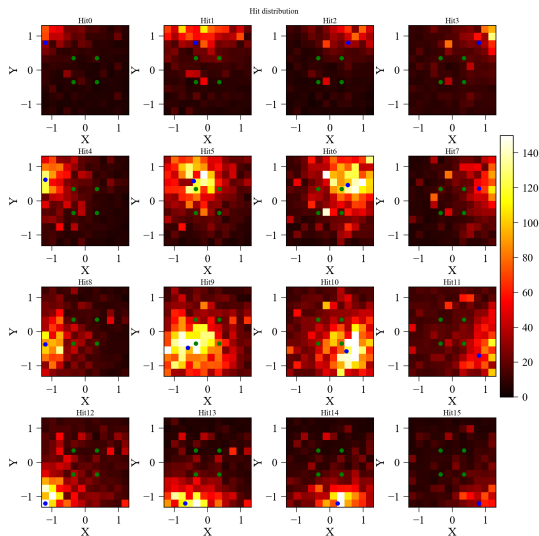


## GRAiNITA Muon Test Bench Status (GMTBS)

03/05/24

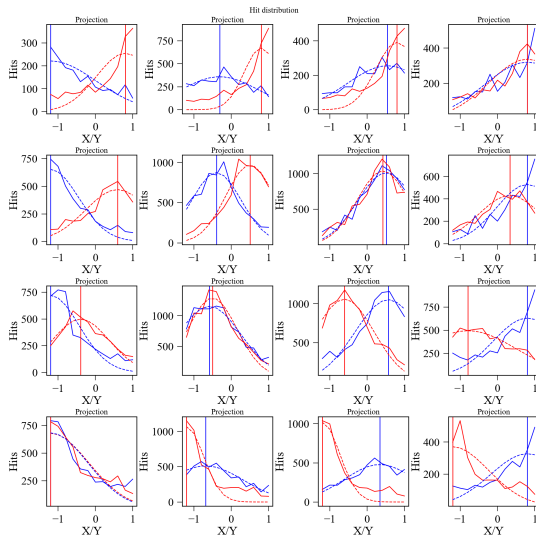
# First results

- ▶ ASM 16 channels readout
- ▶ 2 weeks of data taking, plot at the top of the detector



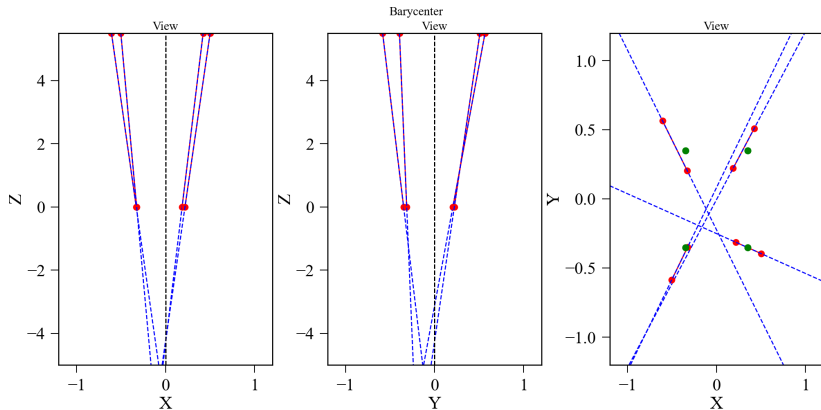
# First results

- ▶ ASM 16 channels readout
- ▶ 2 weeks of data taking



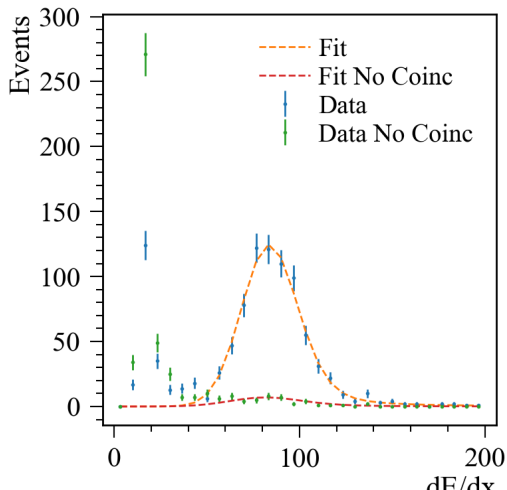
# First results

- Maybe we should move the plots to the middle of the detector to be more "centered" around the fibre



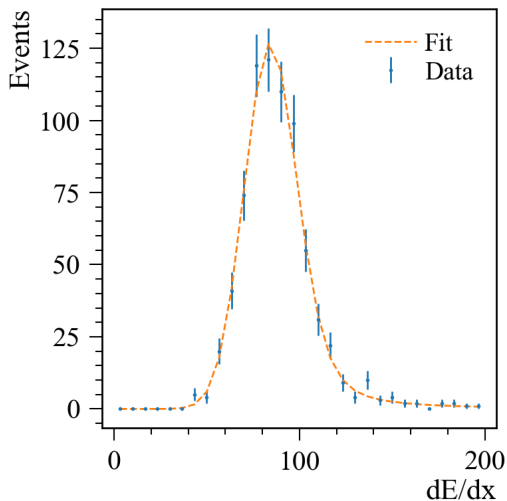
# First results : $DN/dx$

- ▶ Number of photo-electron/distance travelled
- ▶ distance to center < 1.4 cm and distance travelled by the muons > 5.5 cm
- ▶ Results plagued with fake coincidences



# First results : $DN/dx$

- ▶ Adding having at least one fibre  $> 80$  PE (cut  $DN/dx < 14.5$ )



MPV : 84.3 PE/cm

# First results : Light Yield

$$LY = \frac{MPV * 5.5 \text{ cm} - \text{Dark Noise}}{40 \text{ MeV}}$$

Dark noise :

Channel	0	1	2	3	4	5	6	7
Dark noise (PE)	8.7	4.84	6.62	3.86	7.42	4.04	4.42	3.94

Channel	8	9	10	11	12	13	14	15
Dark noise (PE)	3.88	4.42	3.02	4.48	3.32	4.26	3.28	3.68

$$LY = 9700 \text{ PE/GeV}$$