

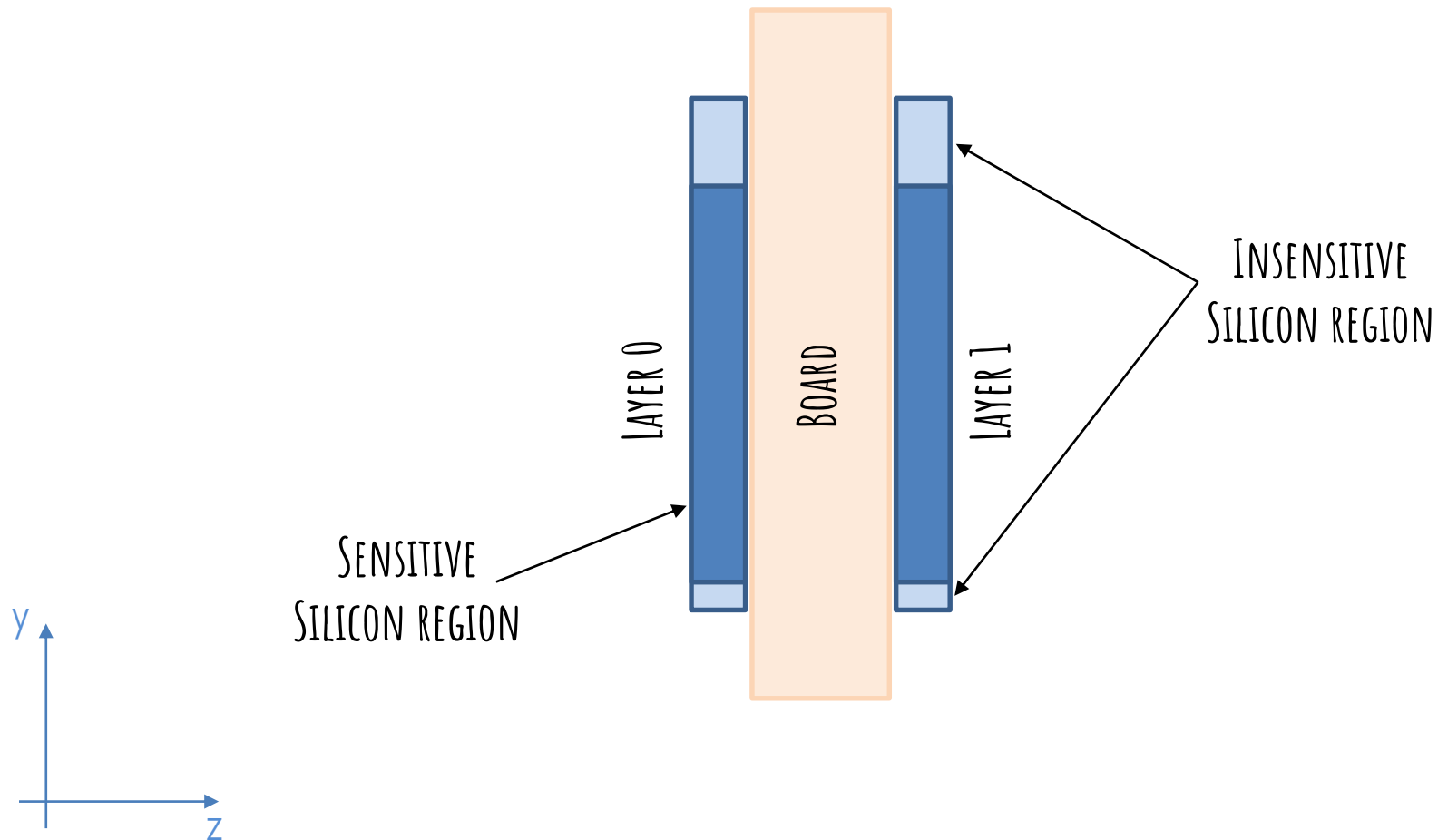


# Plume & magnets in our Simulations

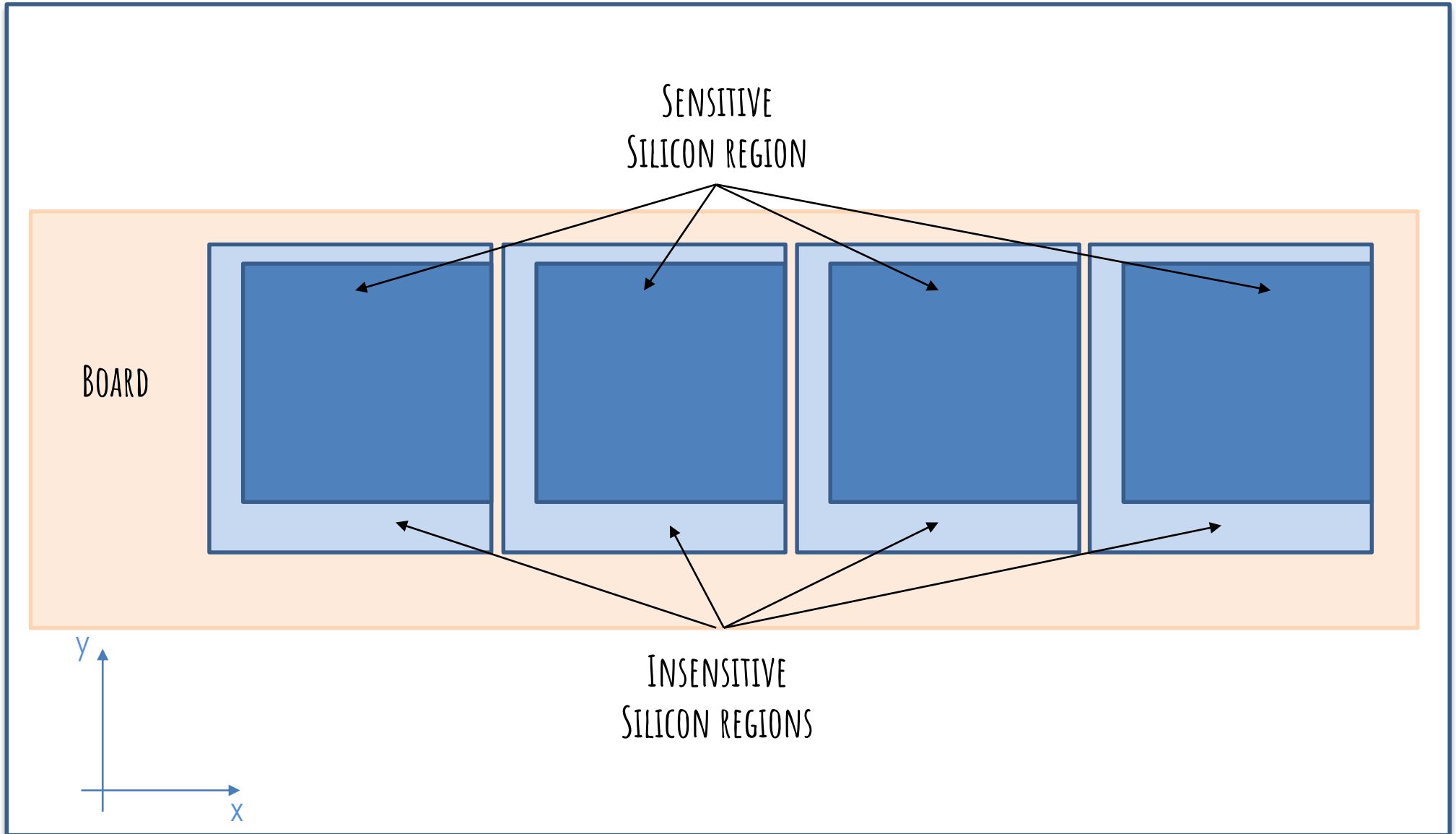
MILANO + BOLOGNA

# Plume sketch (yz plane)

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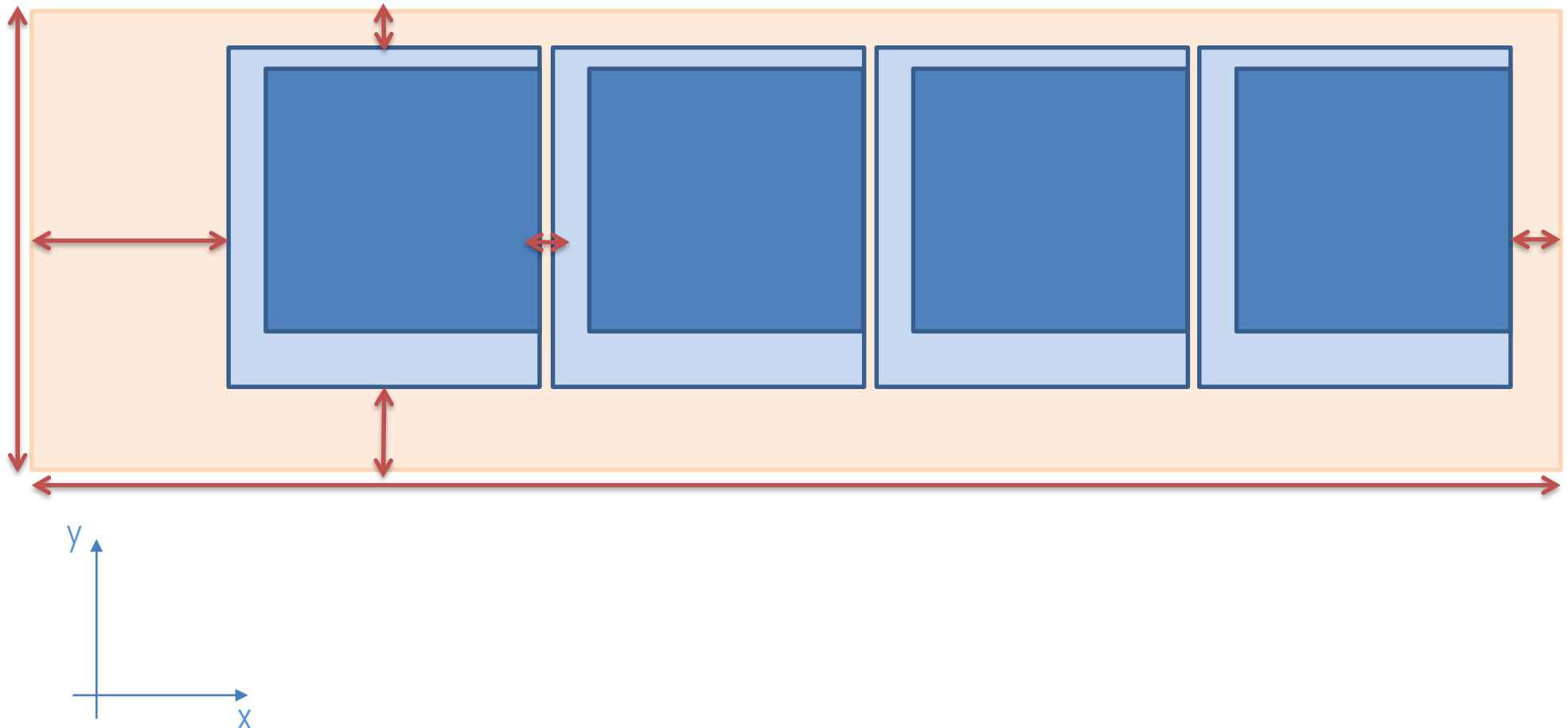
# Plume sketch (xy plane)



# Board dimensions

How big is the board?

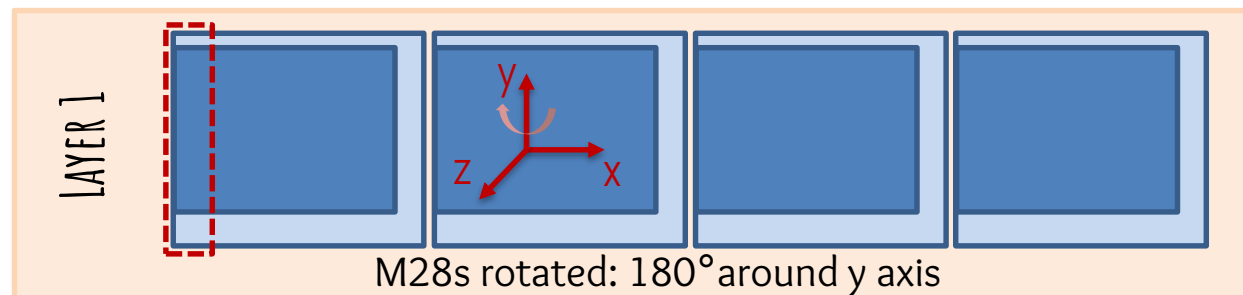
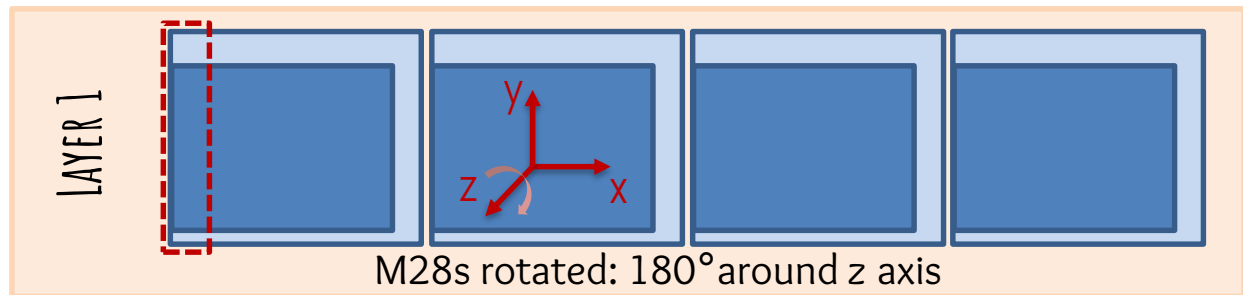
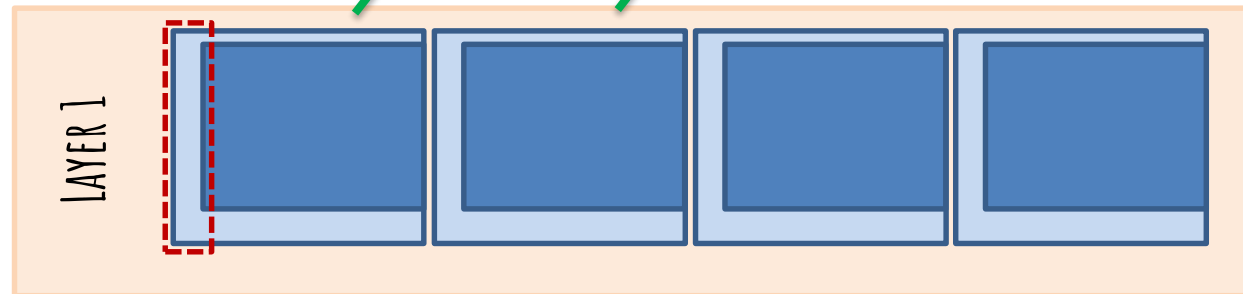
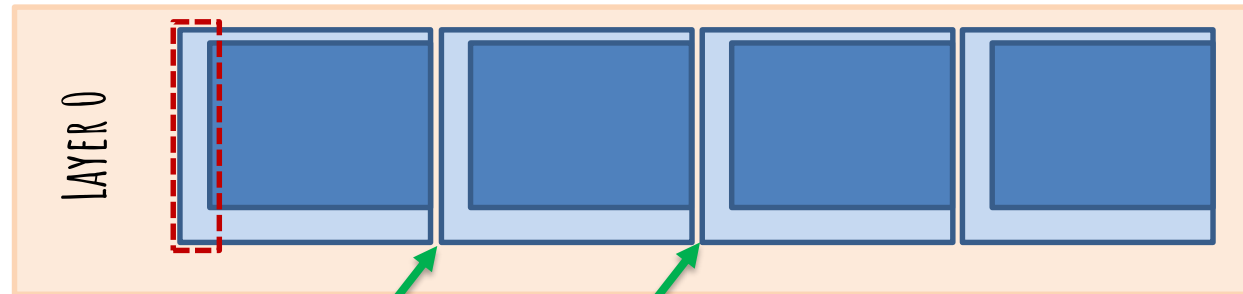
Where are the M28s exactly placed on the board?



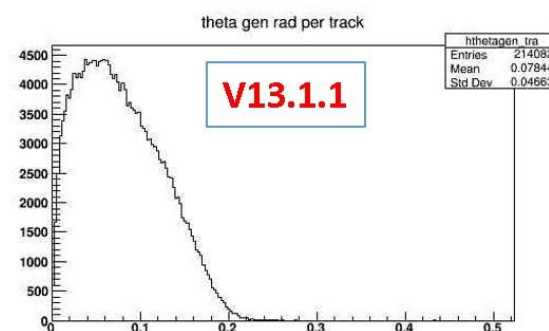
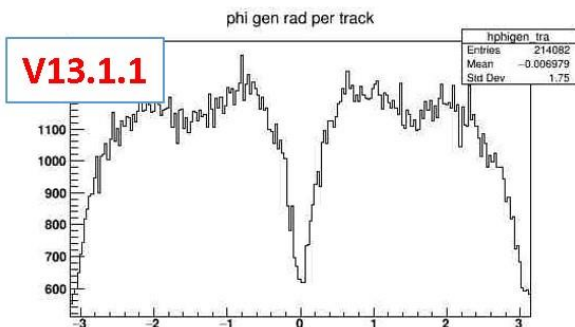
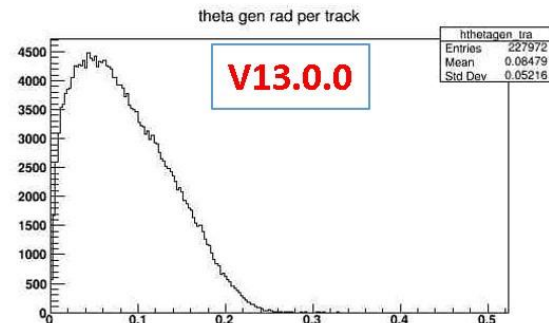
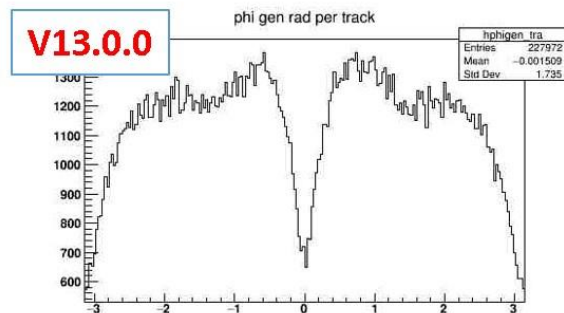
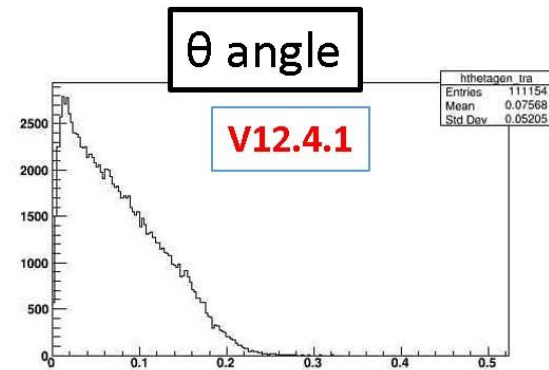
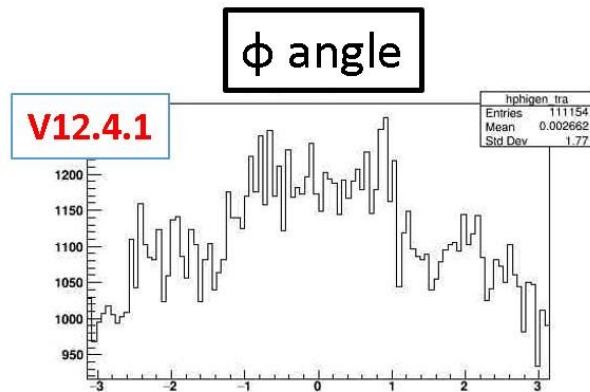
# Layers configurations

Which **configuration** for Layer 1? The same of layer 0 or with M28 turned upside down or flipped?

Are the two layers perfectly aligned or can we stagger them to overcome **the non sensitive space** btw the M28s?



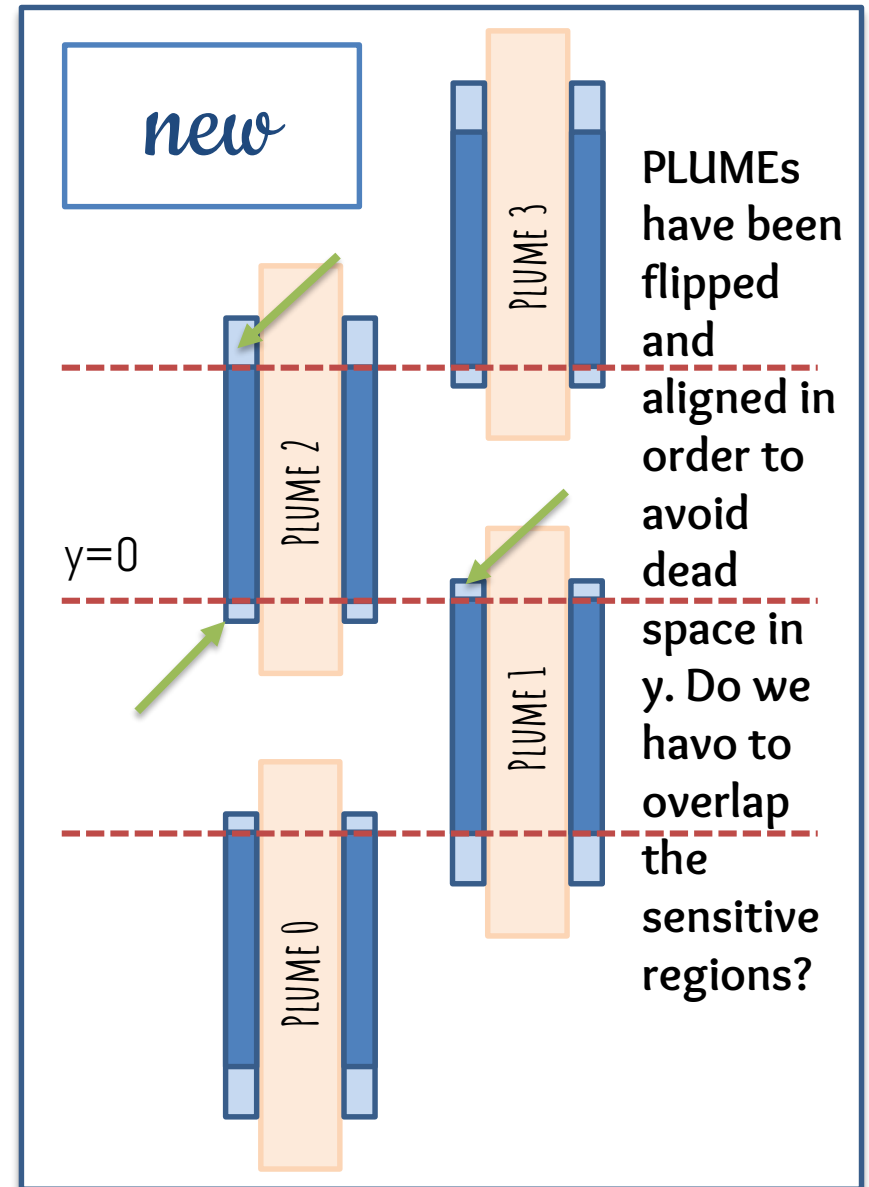
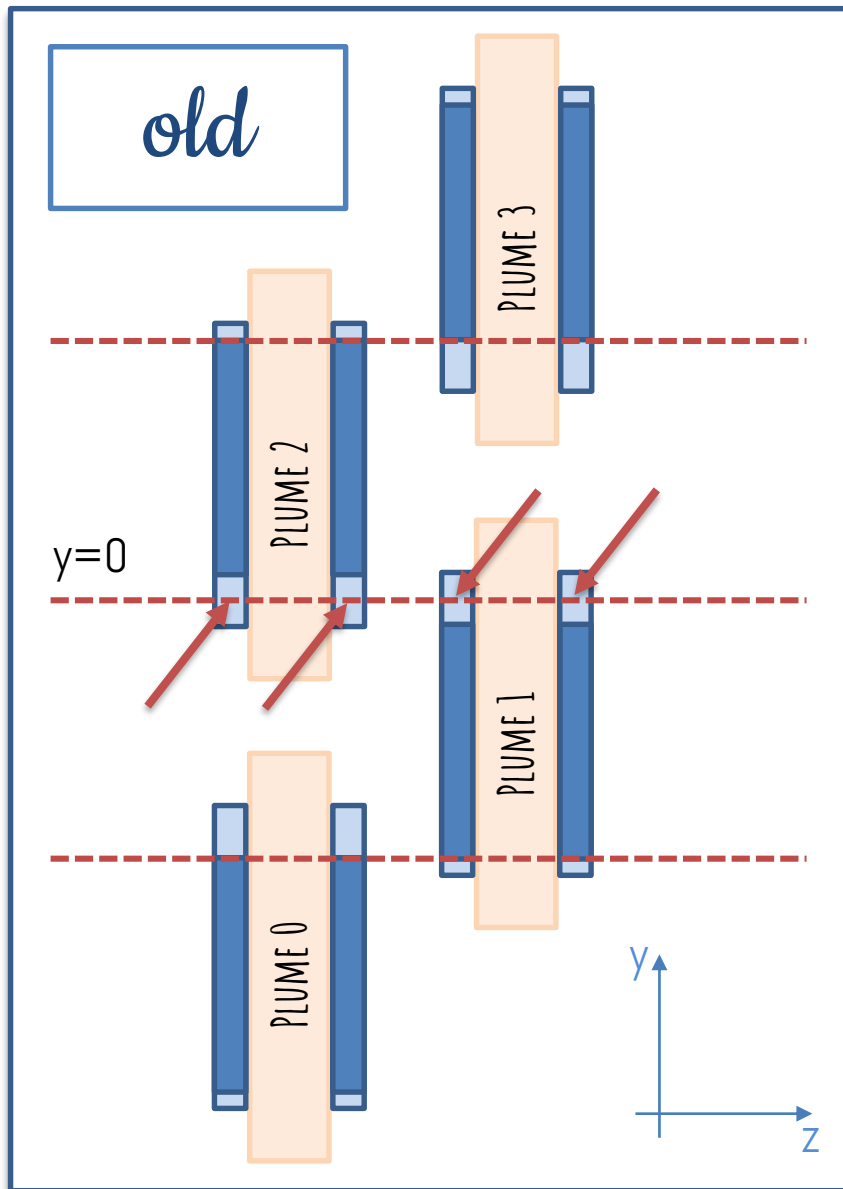
# A problem emerged...



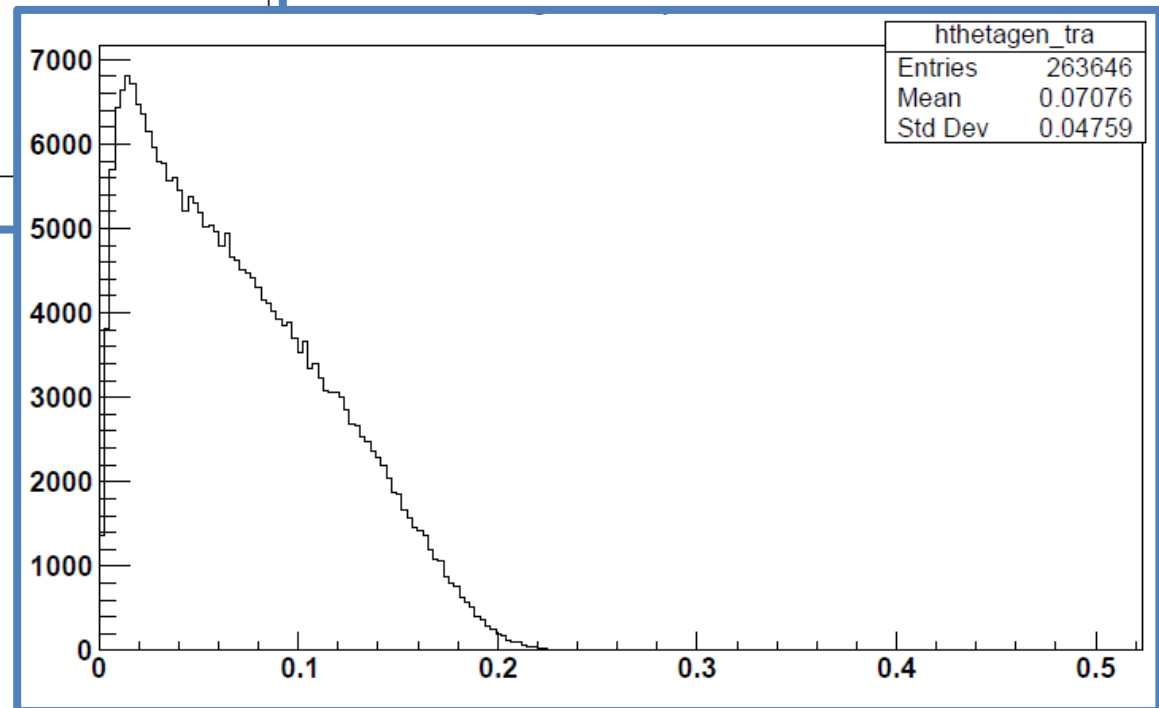
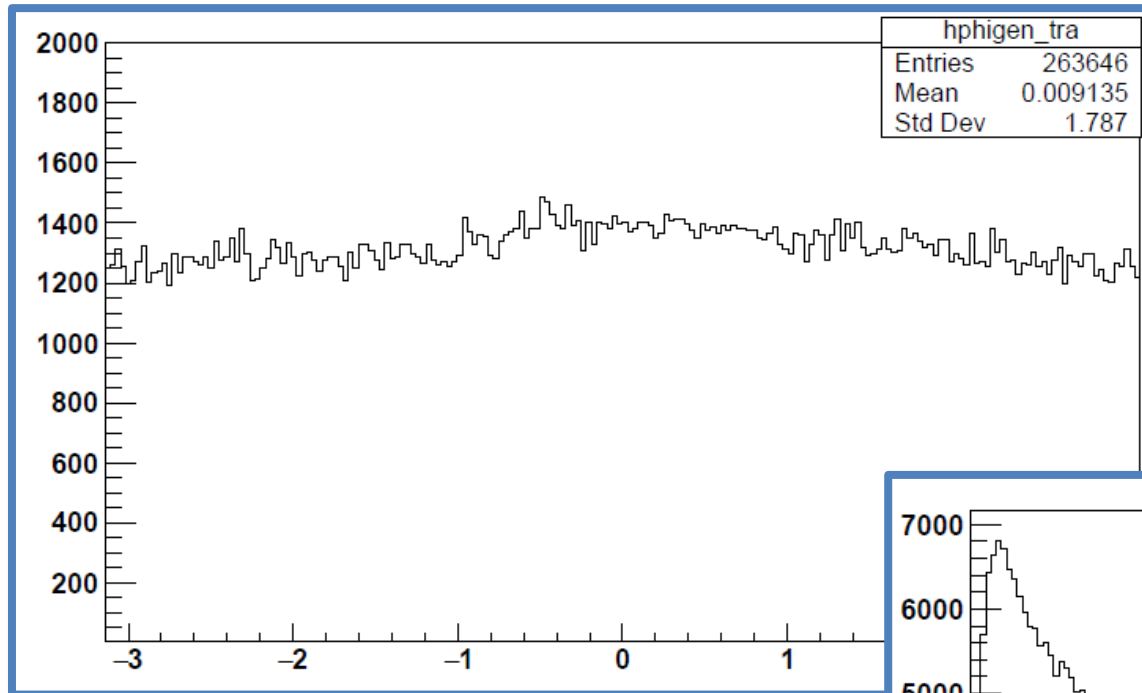
Tracks that deposite energy in all detectors

THANKS TO ROBERTO SPIGHI

# Y stagger



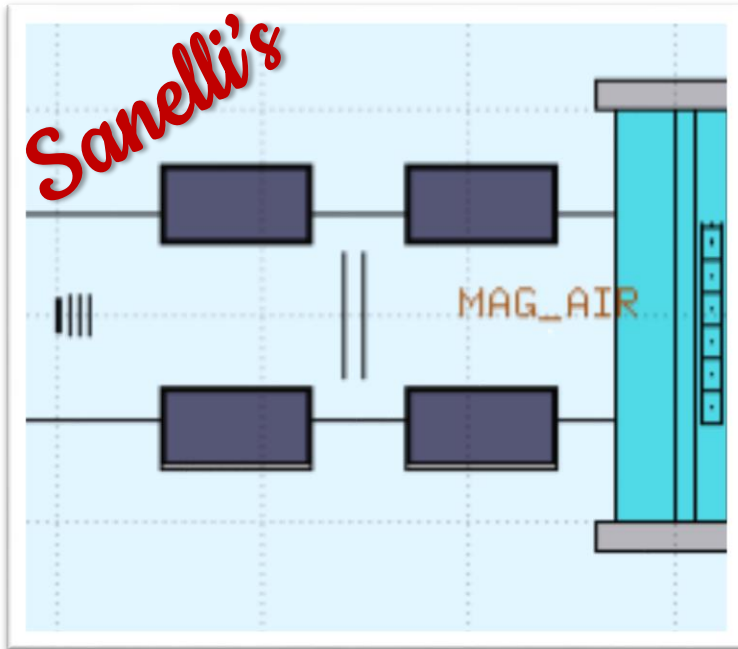
# ...problem solved!



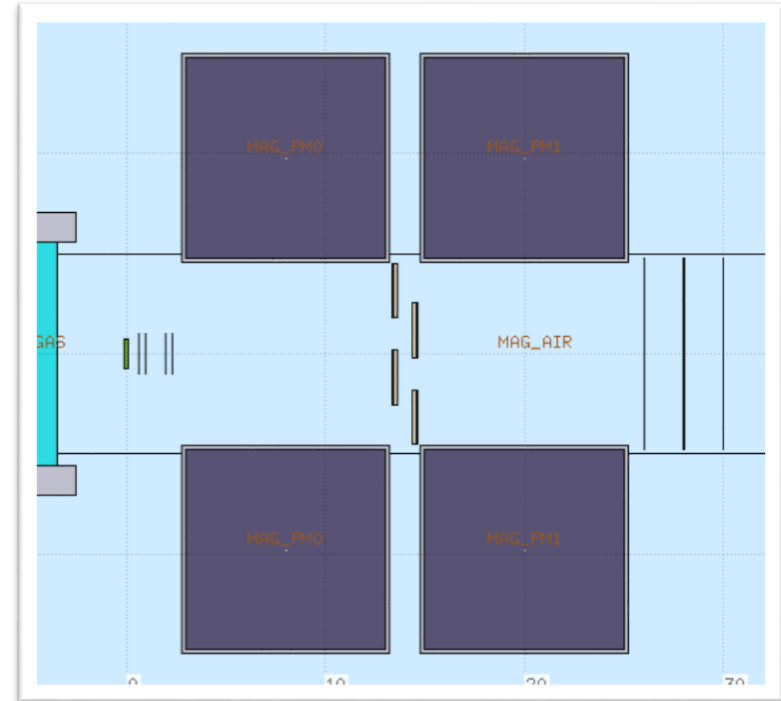
THANKS TO ALBERTO MENGARELLI



# Magnets

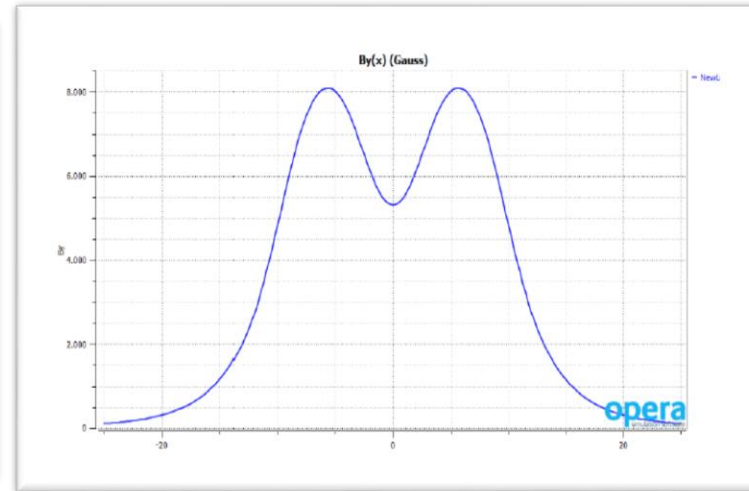
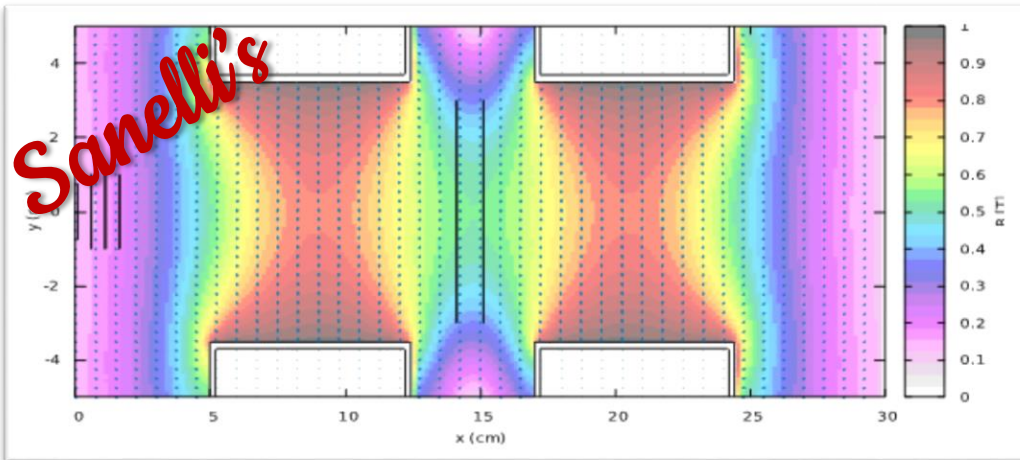


- 7cm long (+0,4cm Al cover)
- 3,7cm internal radius (-0,2cm Al cover)
- 5cm distance btw magnets (-0,2cm Al cover)

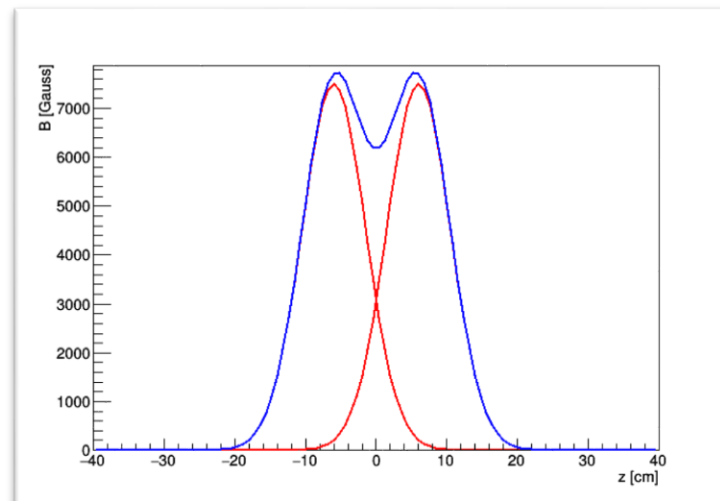
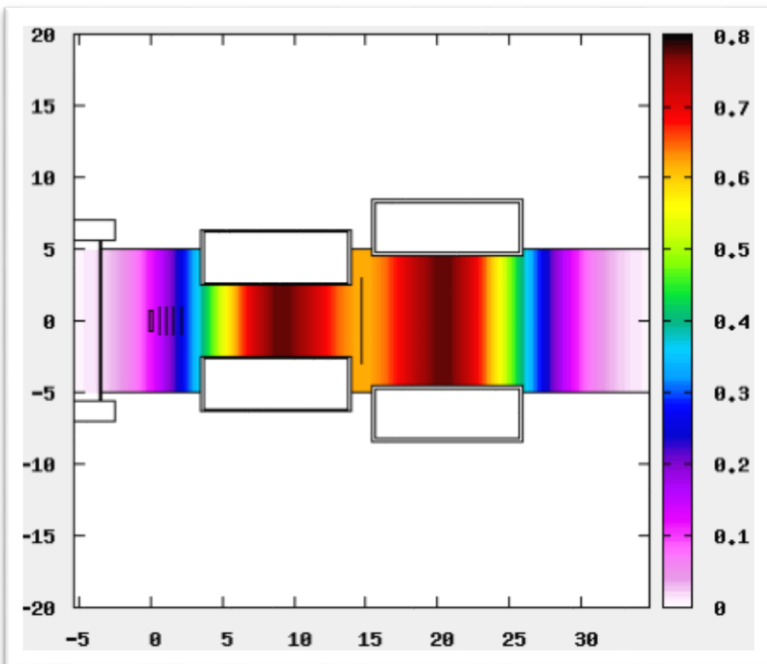


- 10cm long (+0,4cm Al cover)
- ~ 4,7cm internal radius (-0,2cm Al cover)
- 2cm distance btw magnets (-0,2cm Al cover)
- Distance btw the magnets centers invariaded (detectors position has not changes)

# Magnetic field



Realistic magnetic field calculated with a dedicated software



Approximated map with  $B_x = B_z = 0$ , while  $B_y$  is  $z$  dependent. It has been calculated as a sum of two Gaussian magnetic fields that qualitatively fit the new configuration.