

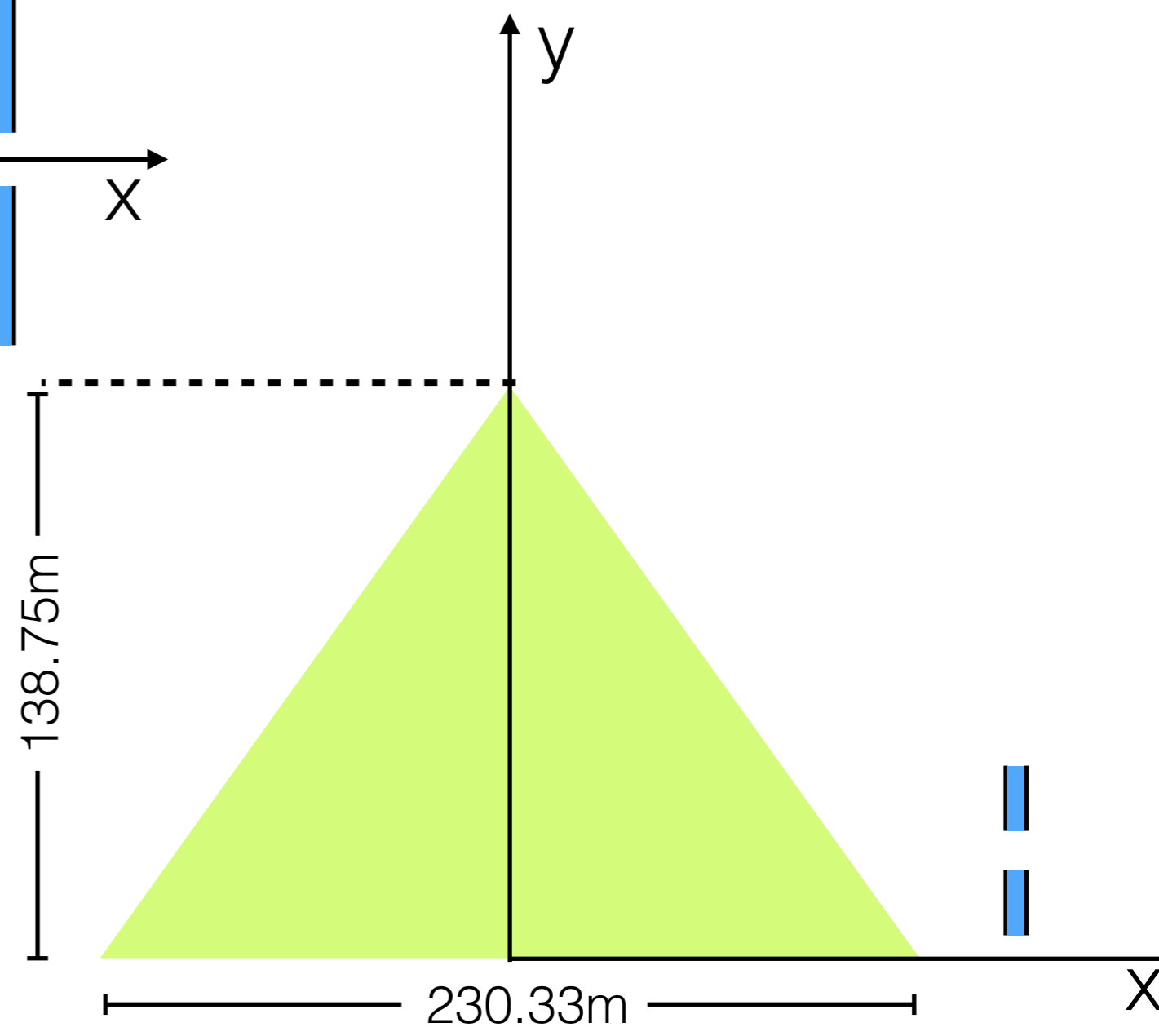
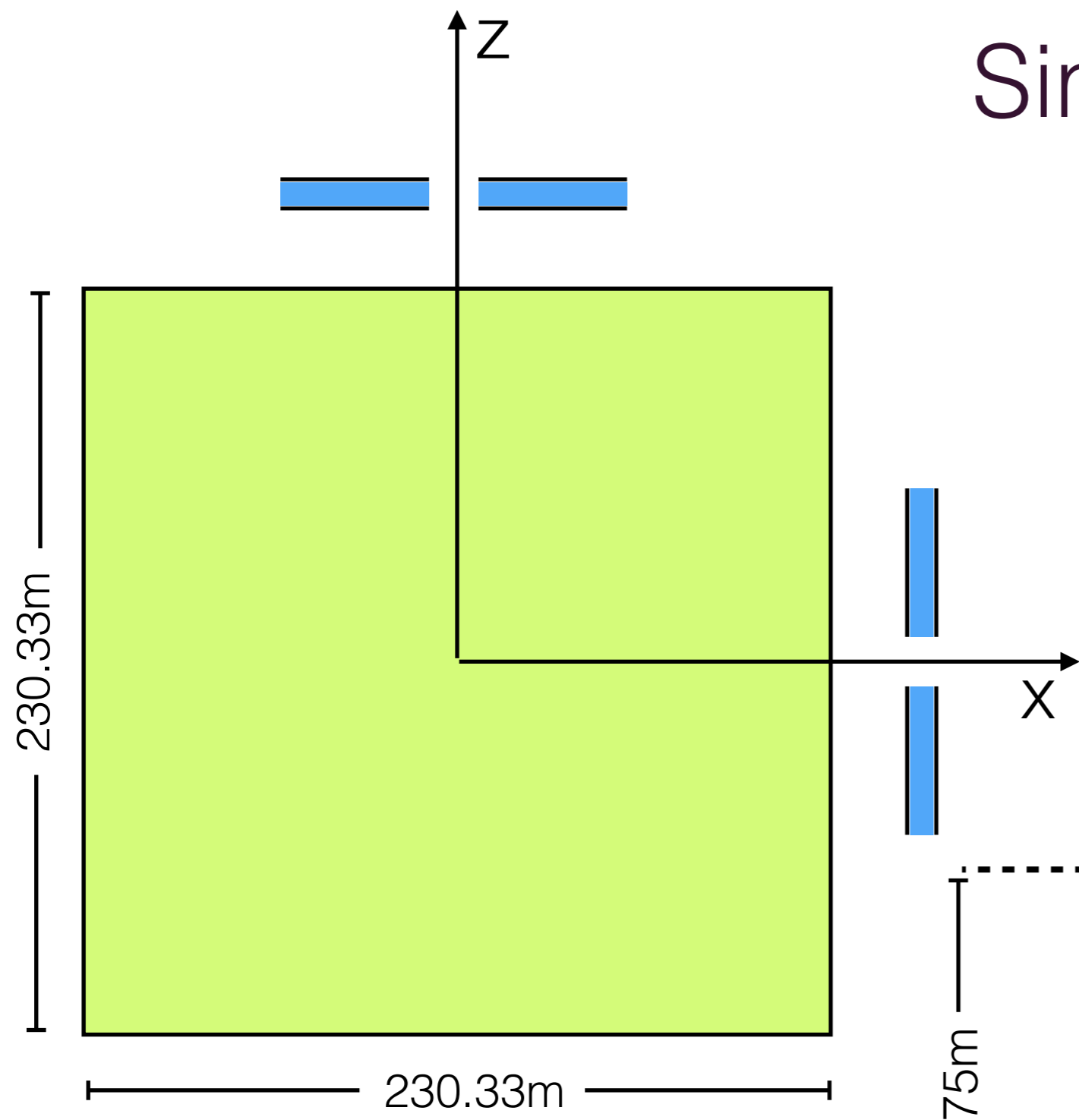
EGP Data Reformatting

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10/28/19

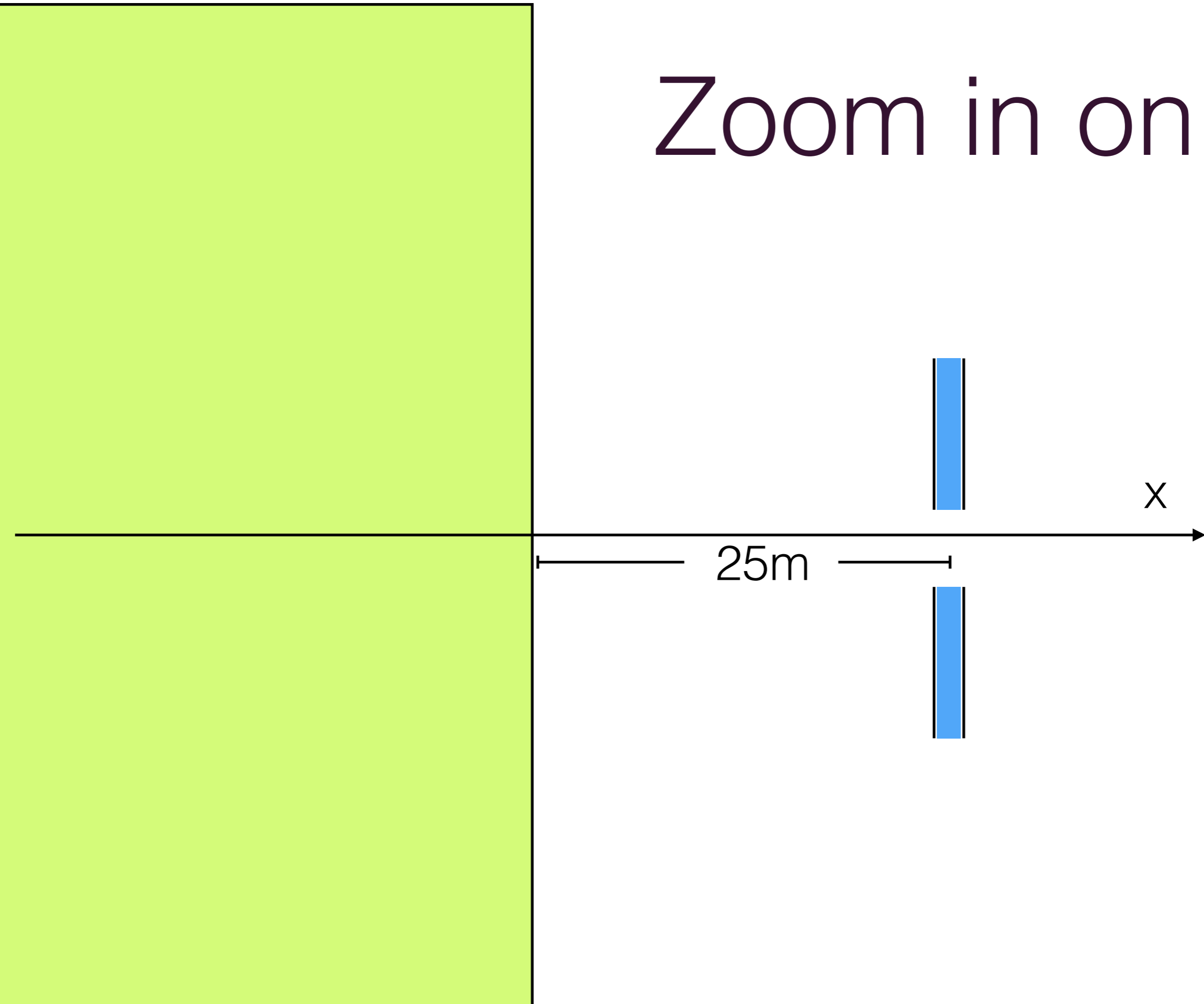
Reformatting Visualizations

- Spent time getting familiar with Ralf's code to be able to understand the geometry
 - Thank you to Ralf for the easy code check out and quick responses to my few questions!
- Want to get track information out of the root ntuples into a format that Patrick's group can use for their visualizations
- Quick review of geometry of pyramid & detectors
- Values going to Patrick

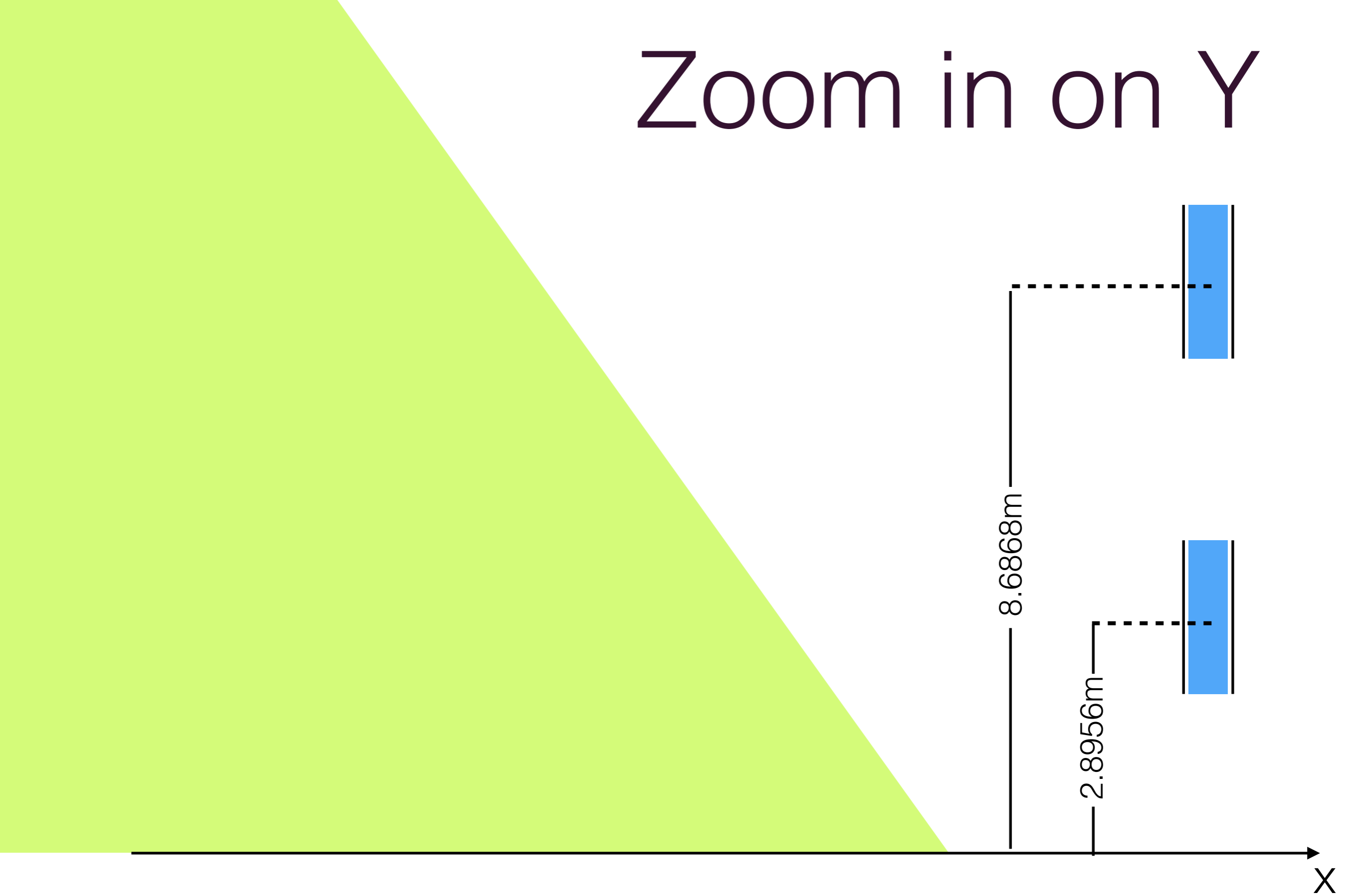
Simplified Top and Side Views



Zoom in on X

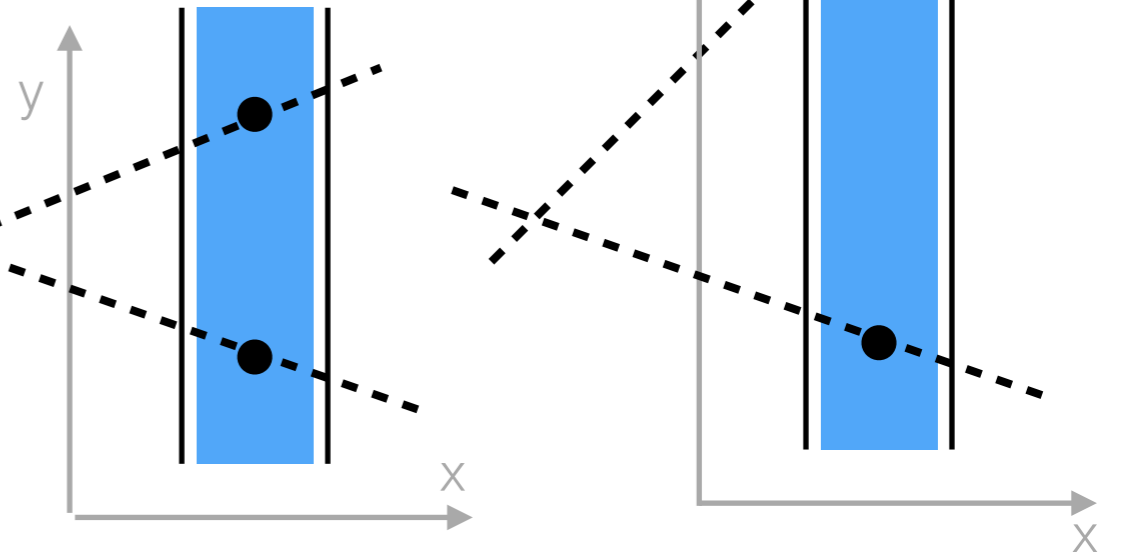


Zoom in on Y



Position & Direction

- Determined if we could give Patrick a position at the detectors and a direction he'd be able to start putting into his system
- Detector Location
 - Avg of hits on detector sides
 - Centerline in x or z
- Reconstruction Direction
- Examples:



container ID:2

(x,y,z) loc at Detector: (140165, 7986.8, -6566)

(x,y,z) recon direction: (0.973262, -0.18492, -0.136257)

container ID:6

(x,y,z) loc at Detector: (-5006, 8501.8, 140165)

(x,y,z) recon direction: (0.785398, -0.312556, 0.534284)

Containers 0-3: X side
Containers 4-7: Z side

Next

- Will send Patrick the geometry description along with where the voids are located.
 - Spheres of different radius from 0.5m - 3m.
 - Located in the $X=0$ plane
- Will send him data from each type of run that Ralf did:
 - Baseline: No pyramid
 - Solid Pyramid
 - Pyramid with voids