

SIMULATION OF LEAD CALORIMETER

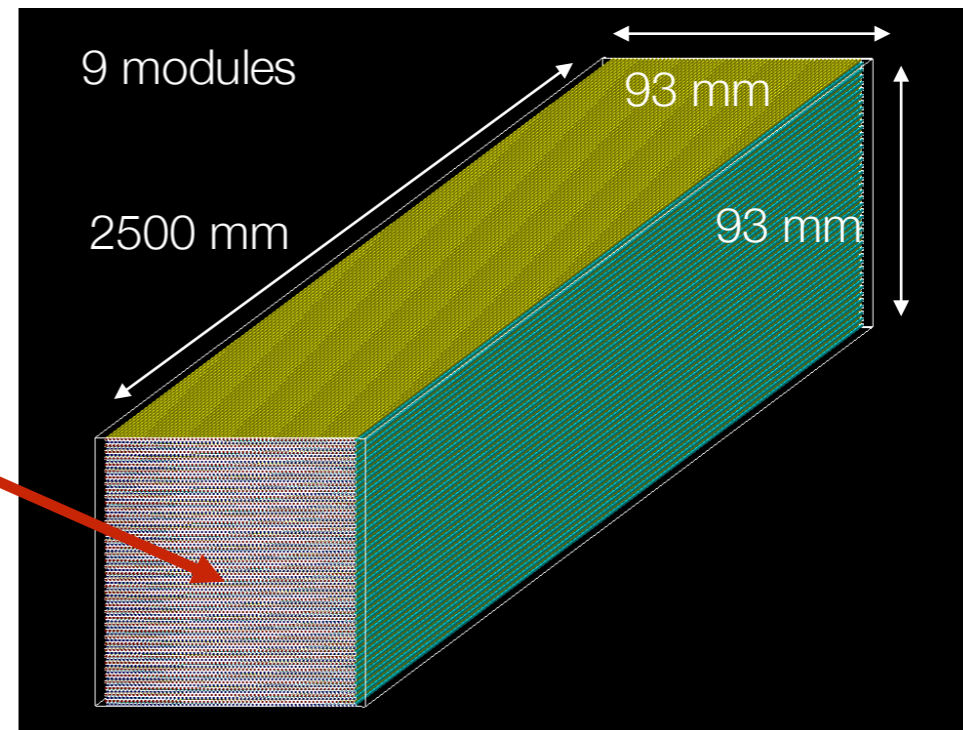
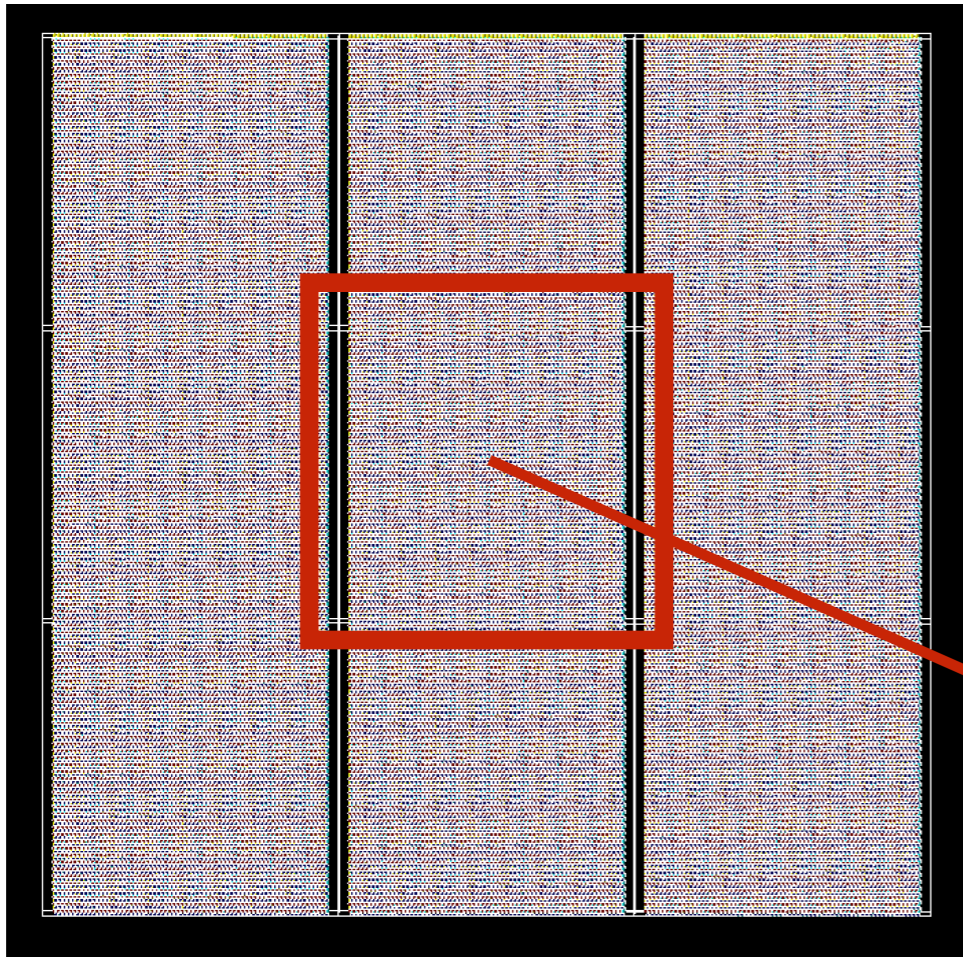
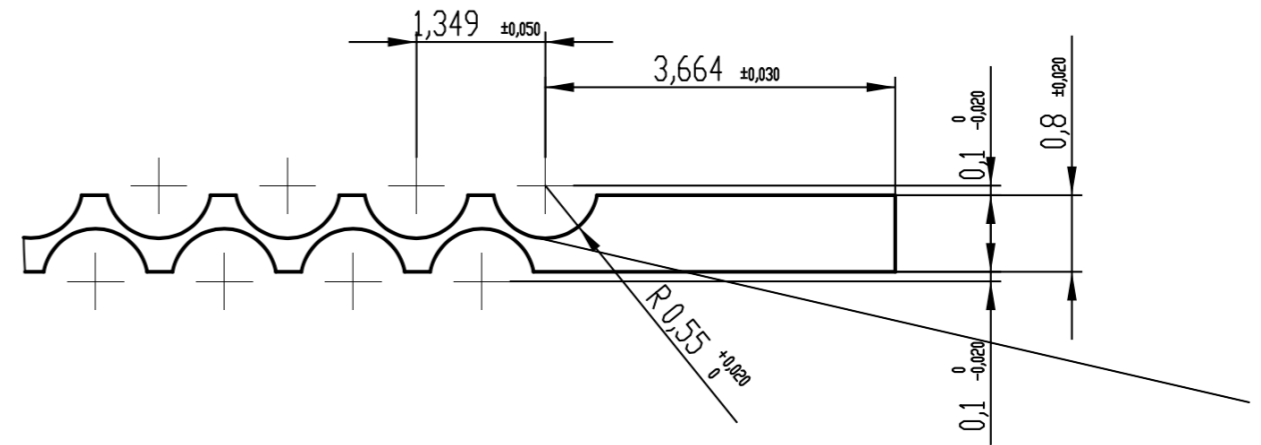
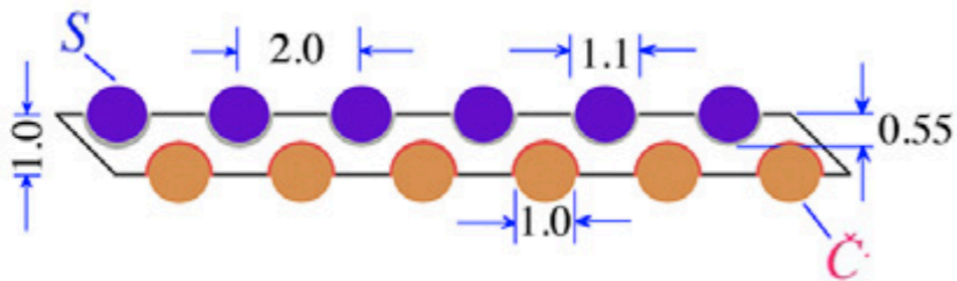
FULL AND FAST SIMULATIONS FOR DUAL READOUT
WEEKLY MEETING 07/13/2017

MASSIMILIANO ANTONELLO



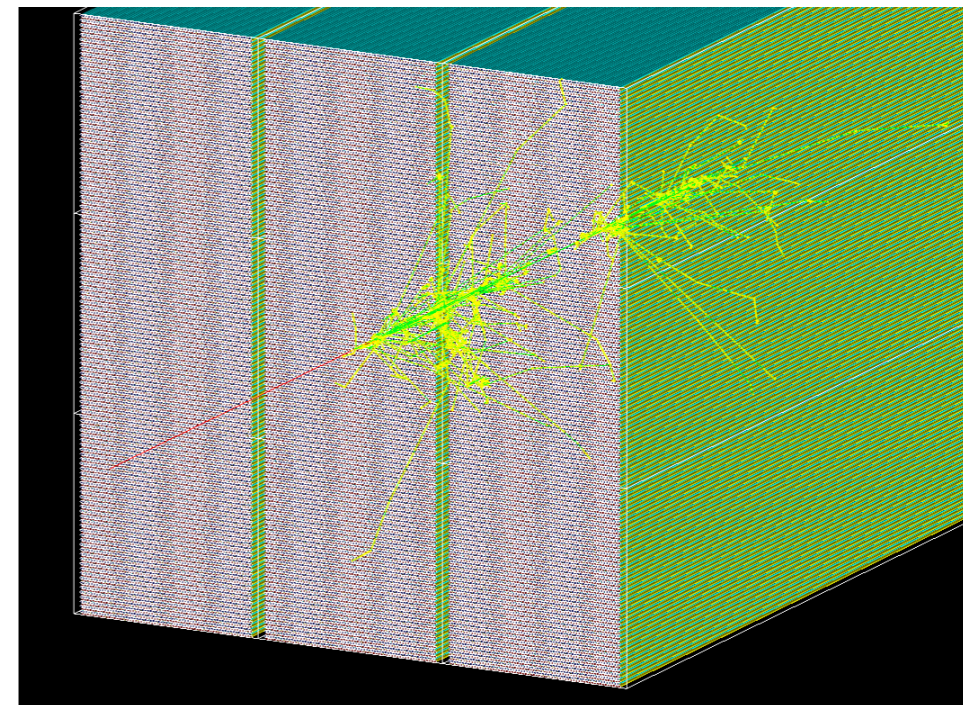
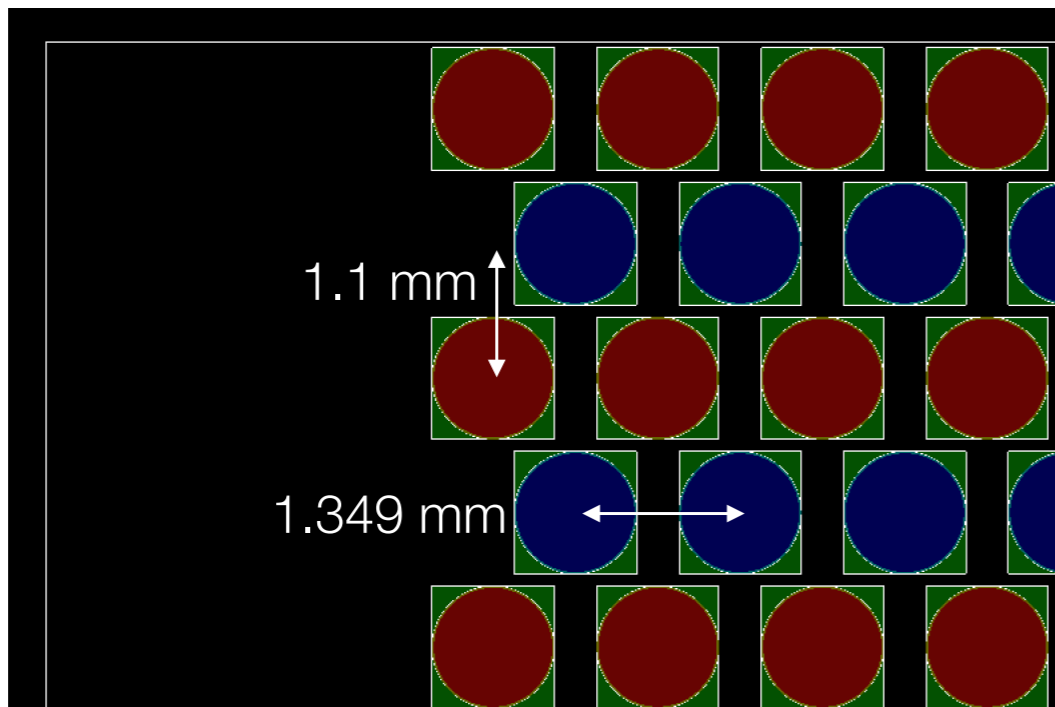
LEAD MODULE GEOMETRY

- ▶ 9 modules of $93 \times 93 \times 2500 \text{ mm}^3$
- ▶ Alternate Cherenkov and Scintillating layers
- ▶ Lead plate dimensions: $93 \times 1.1 \times 2500 \text{ mm}^3$



SINGLE MODULE GEOMETRY

# of fibers	# of layers	# of fibers for each layer	Pitch in x (mm)	Total x length (mm)	Pitch in y (mm)	Total y length (mm)
5376 (2688 S/C)	84 (42 S 42 C)	64	1.349	92.9895	1.1	92.4



- ▶ Sensible detectors: SiPM already in Lorenzo code but with different **PDE**.
- ▶ Already **implemented** in the Lorenzo code.

Next steps:

- ▶ Find the correct **geometry** —> direct measurement next week @ CERN
- ▶ Run for 20,40,60,80,90,100,200 GeV x 6000 events of **e⁻** and **γ**