

Full Simulation Status



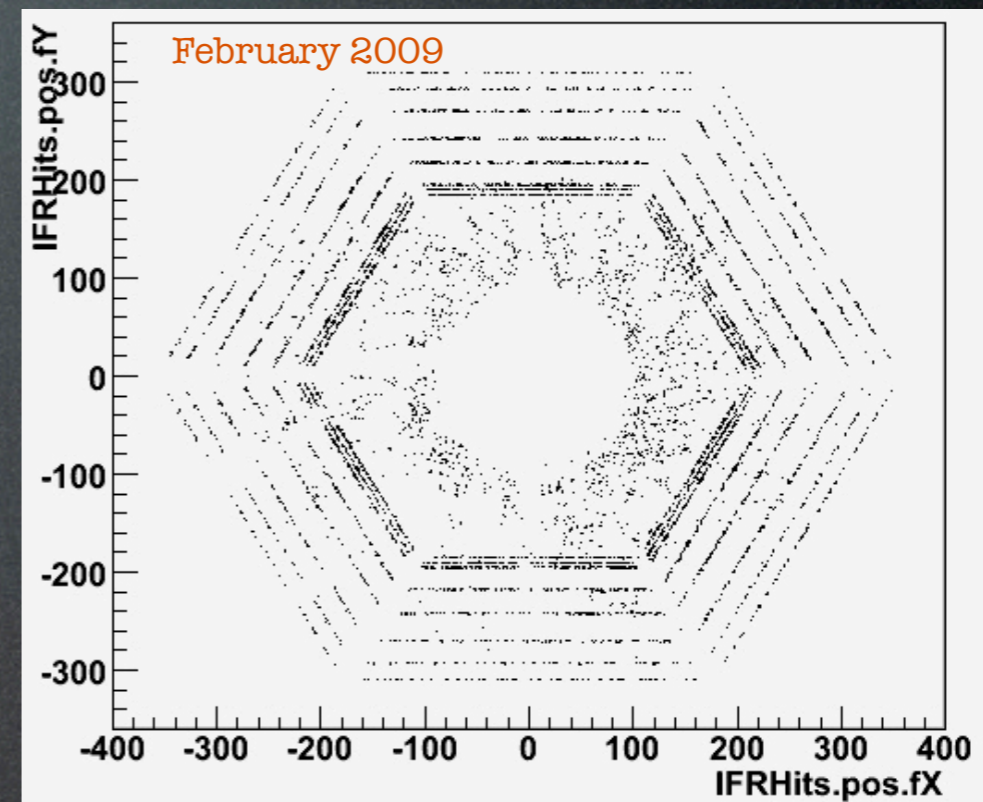
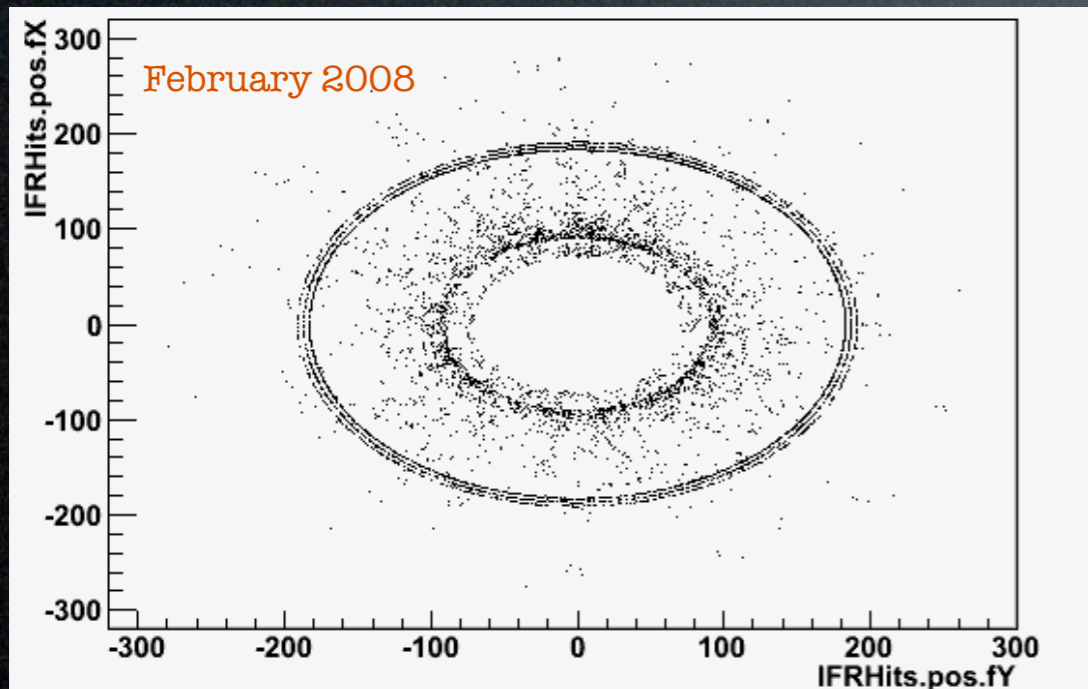
SuperB Workshop,
Orsay

Outline

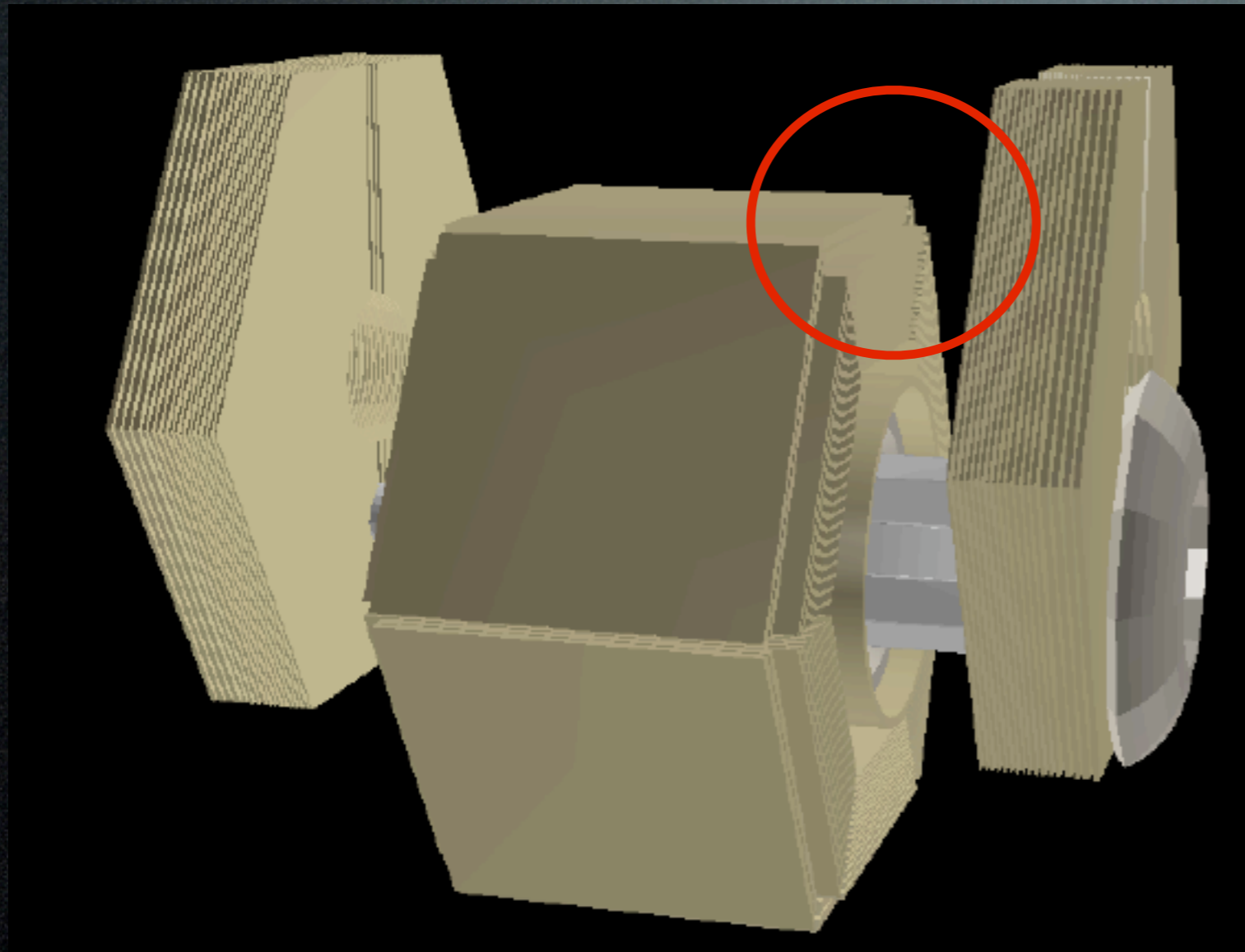
- The importance of Full Simulation
- Status of IFR at Elba meeting
- Status of IFR now
- Digitization
- Conclusions and open issues

Importance of full simulation and evolution of IFR geometry

A full simulation is important for background simulation, detector optimization and for extracting parameters for fast simulation



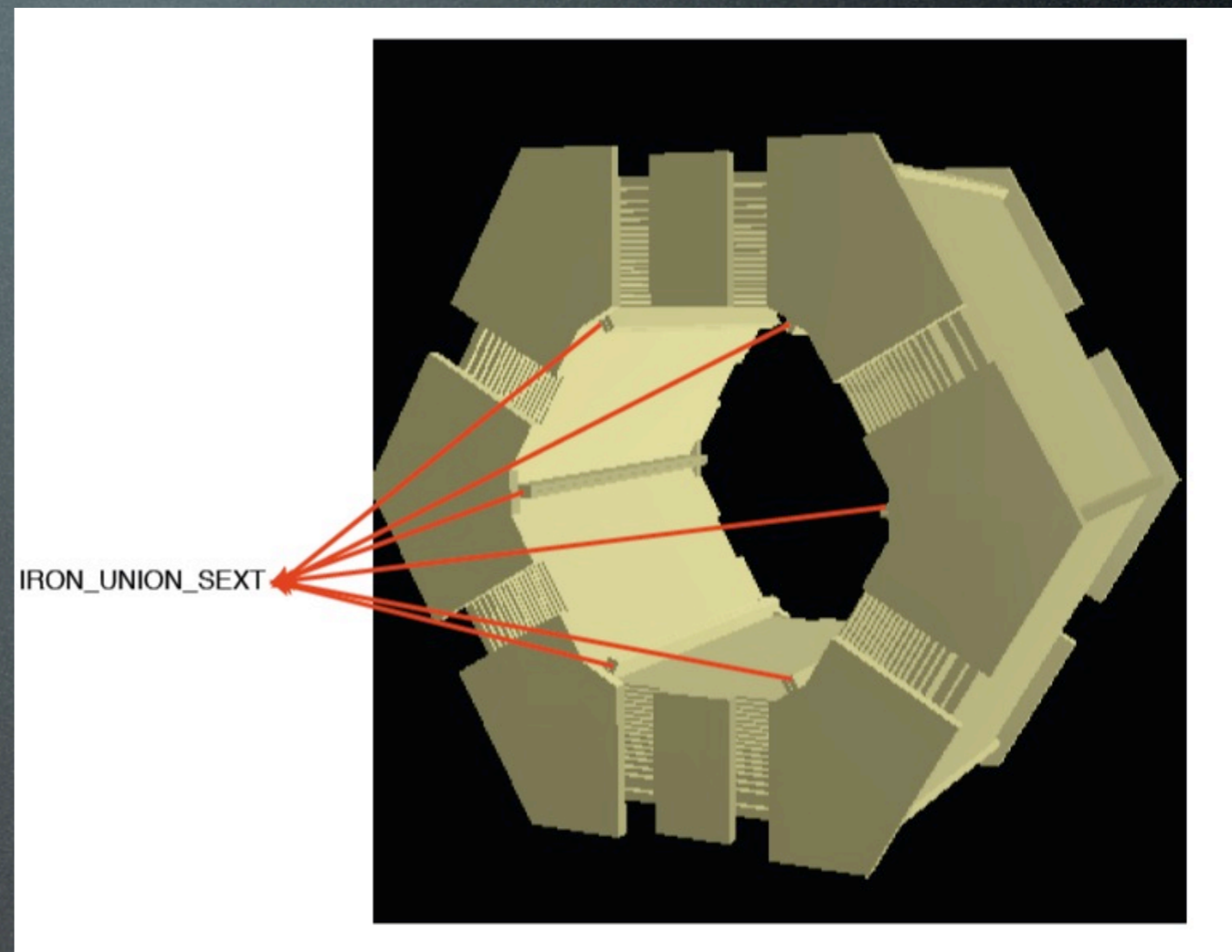
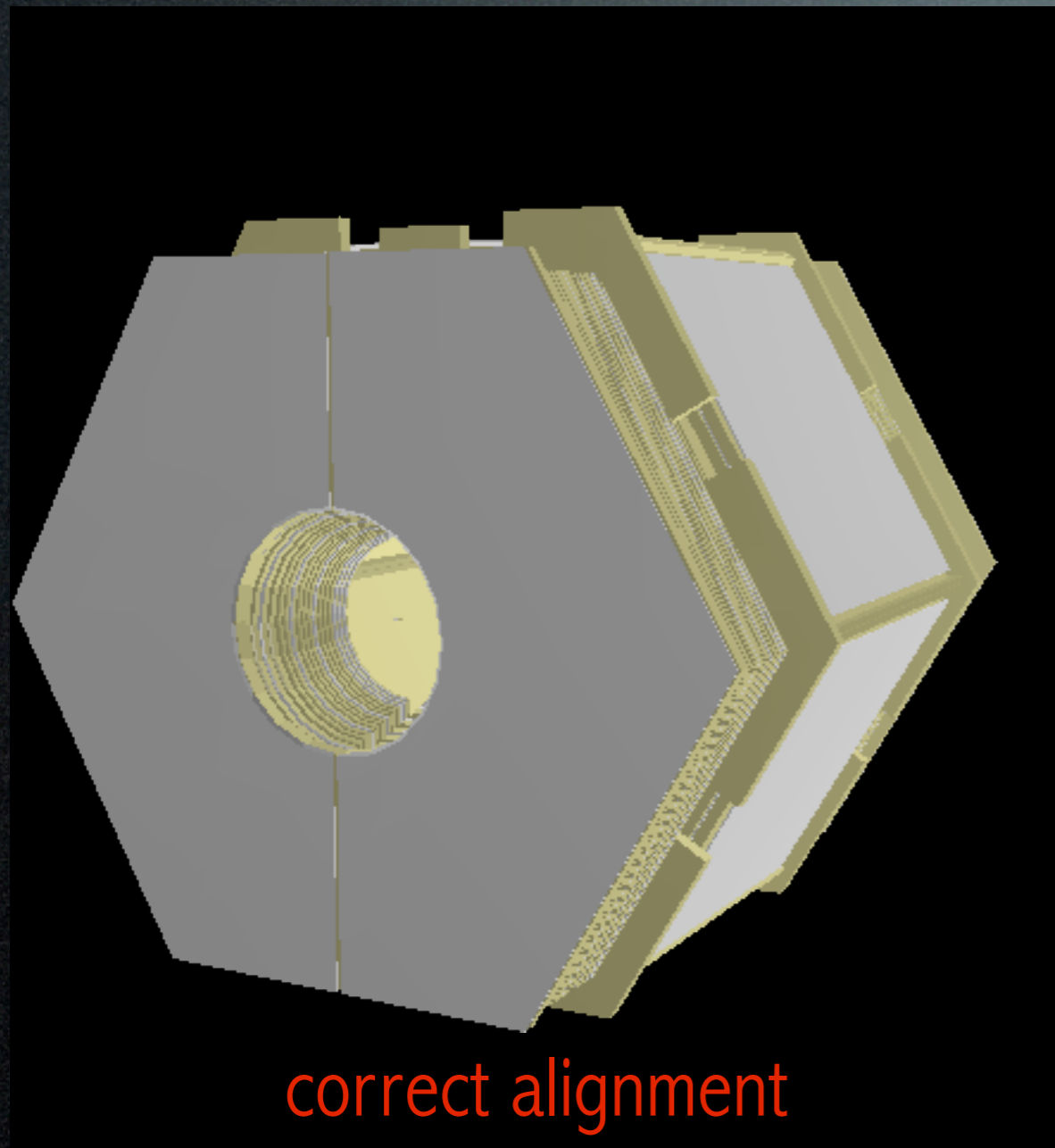
The IFR at Elba meeting



Some problems
with alignment of
endcaps due to
the version of ROOT

We don't have the
corner blocks

The IFR now

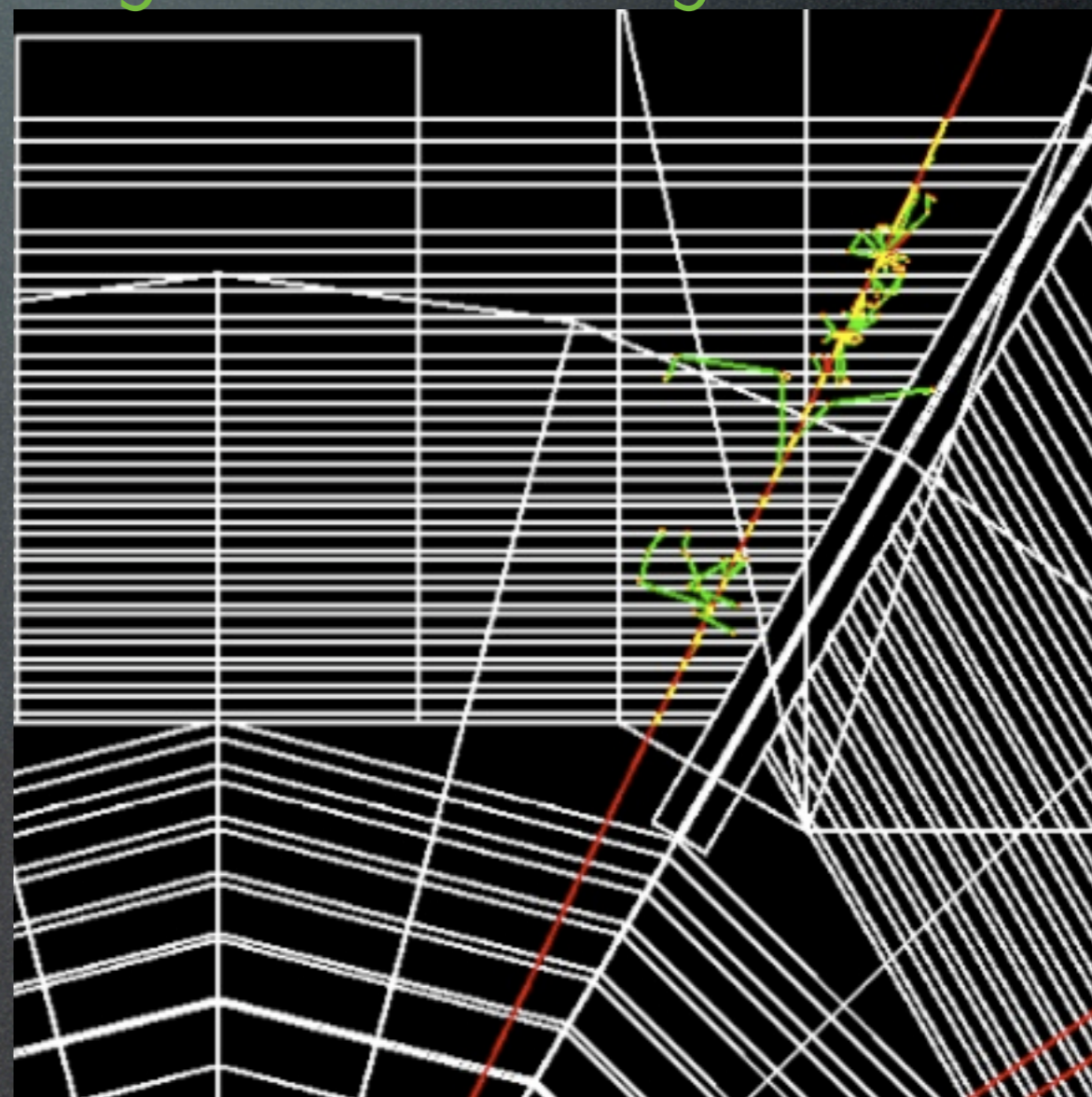


Digitization (I)

- The main idea of digitization for IFR is to collect hits of same track in one layer
- With digitization we can decrease the dimension of hits collection.
- Now in the preliminary version of digitization we check of an GHit: trackID, layer and position.

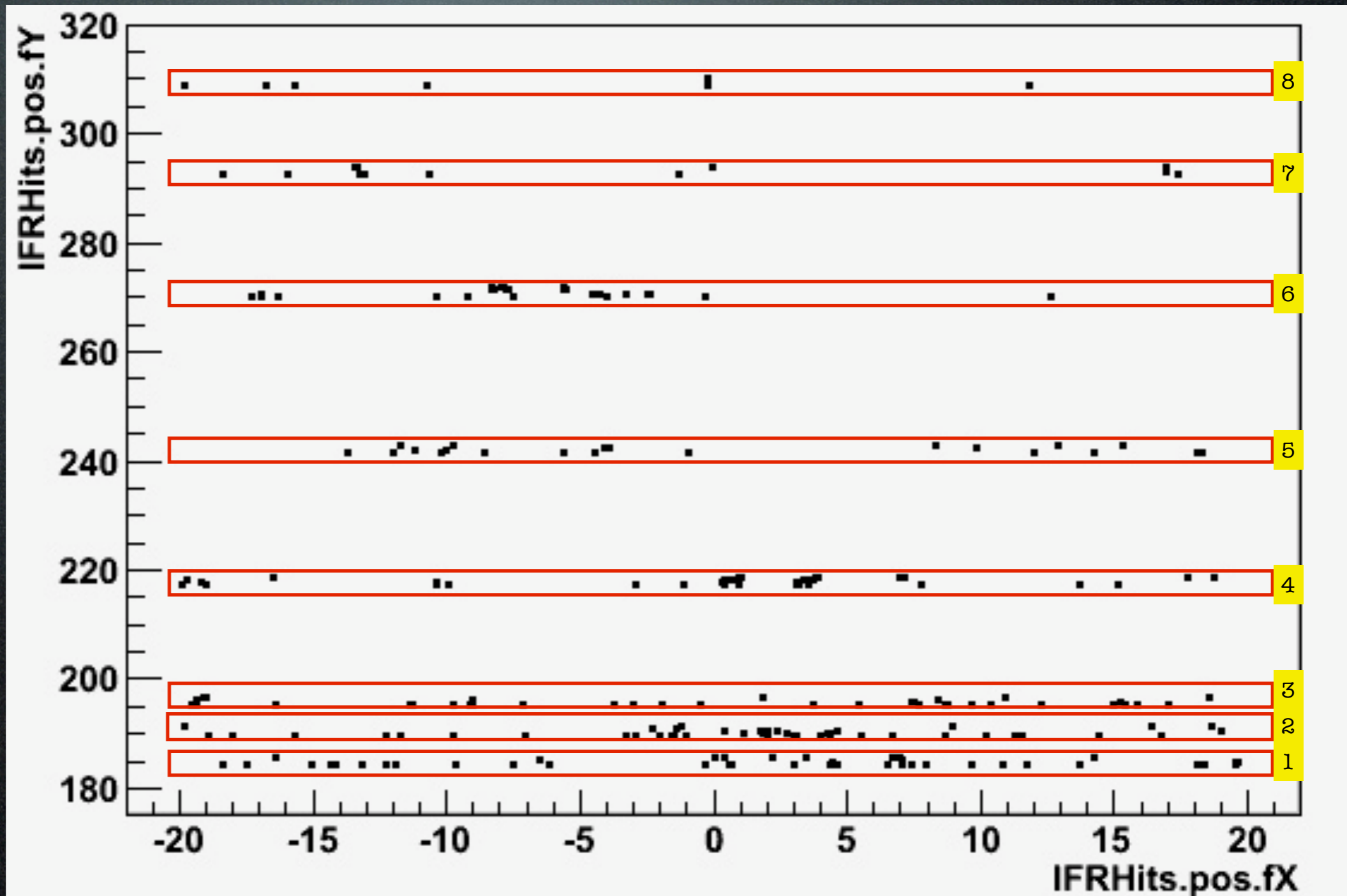
Digitization (II)

- With Bruno we can shot a gun particle.
- Now we can compare the digitization shoting 1000 muon (for example).



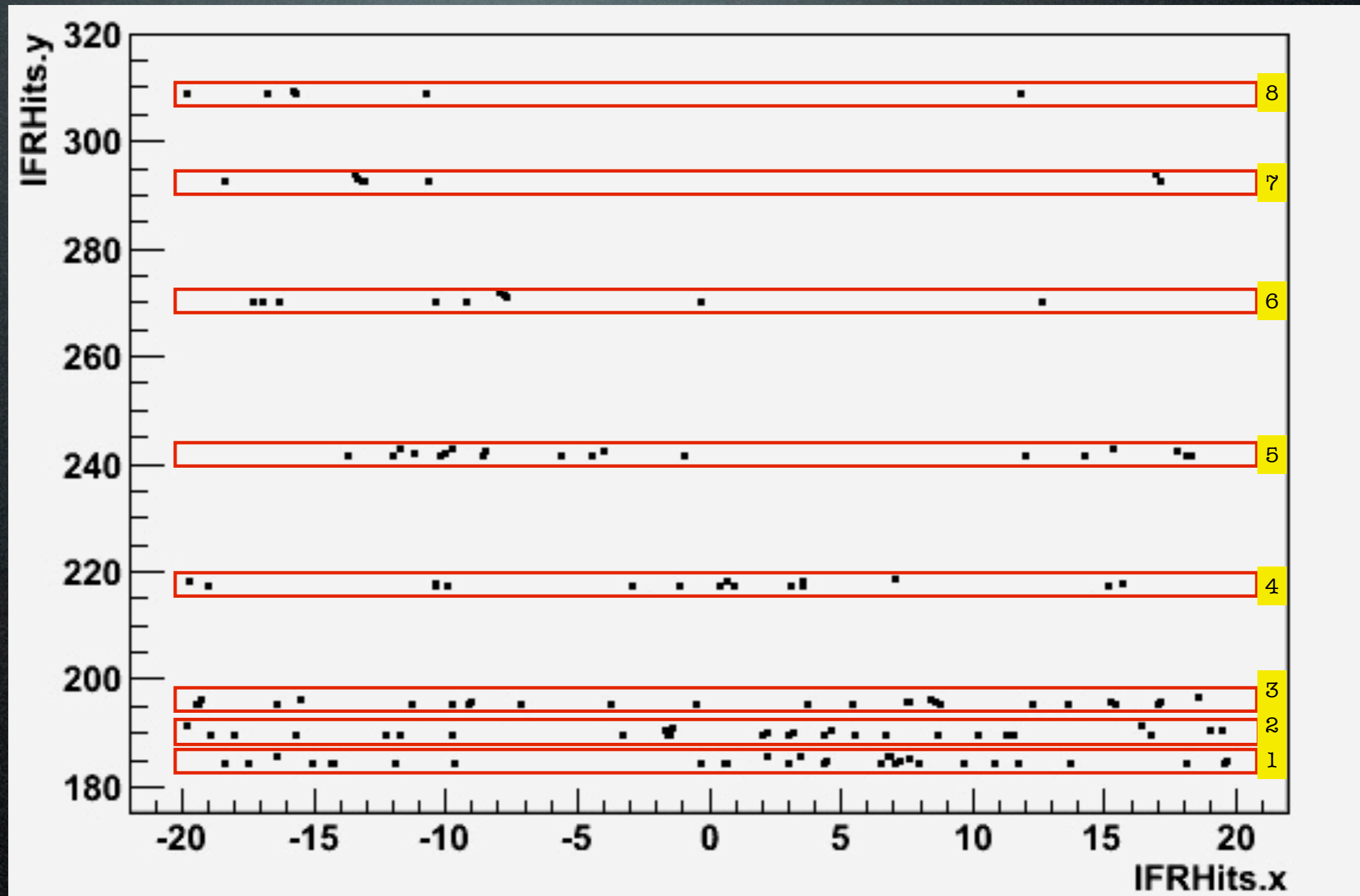
Digitization (III)

Not digitized:
309 GHits



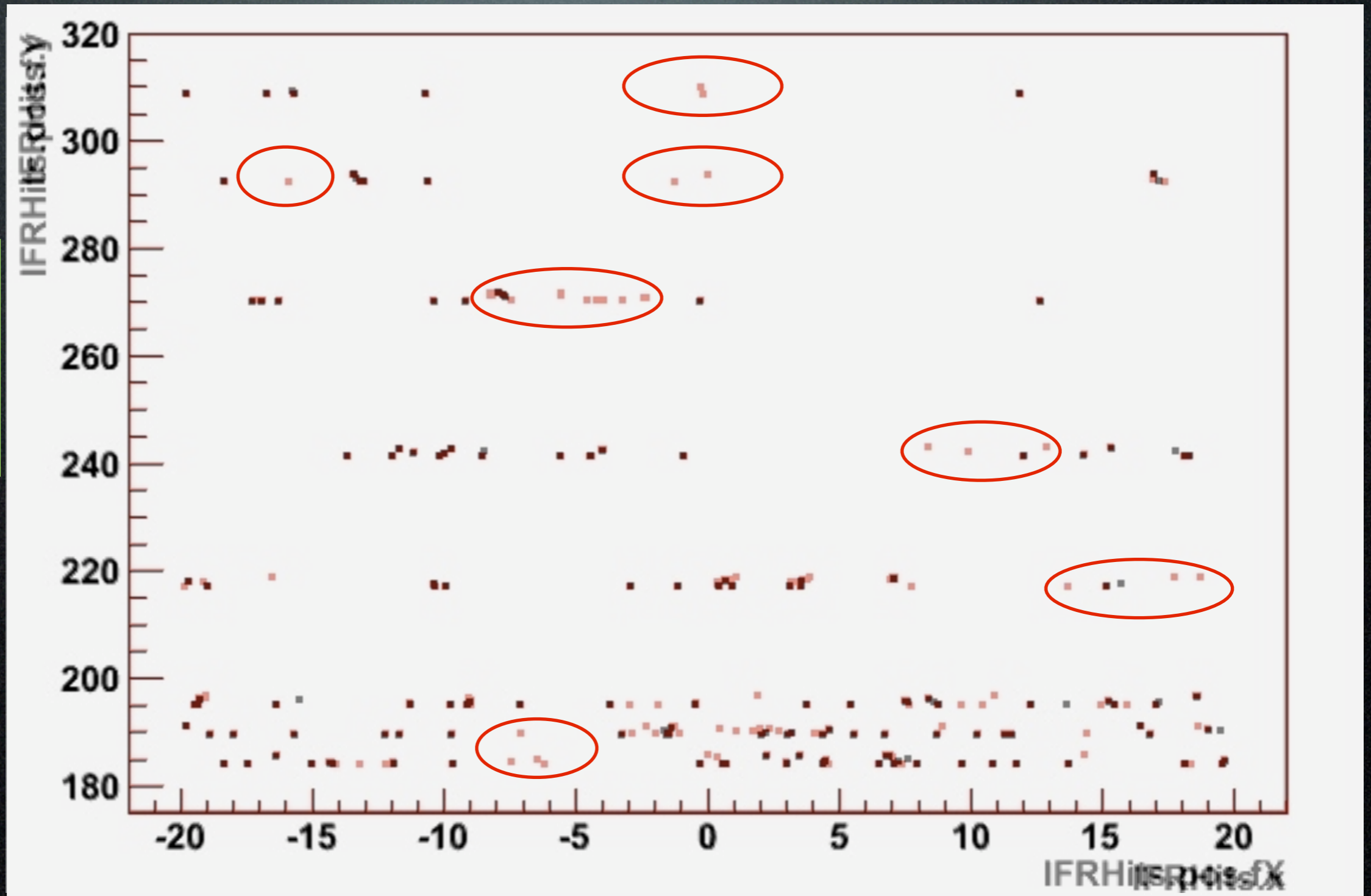
Digitization (IV)

Digitized:
145 Hits

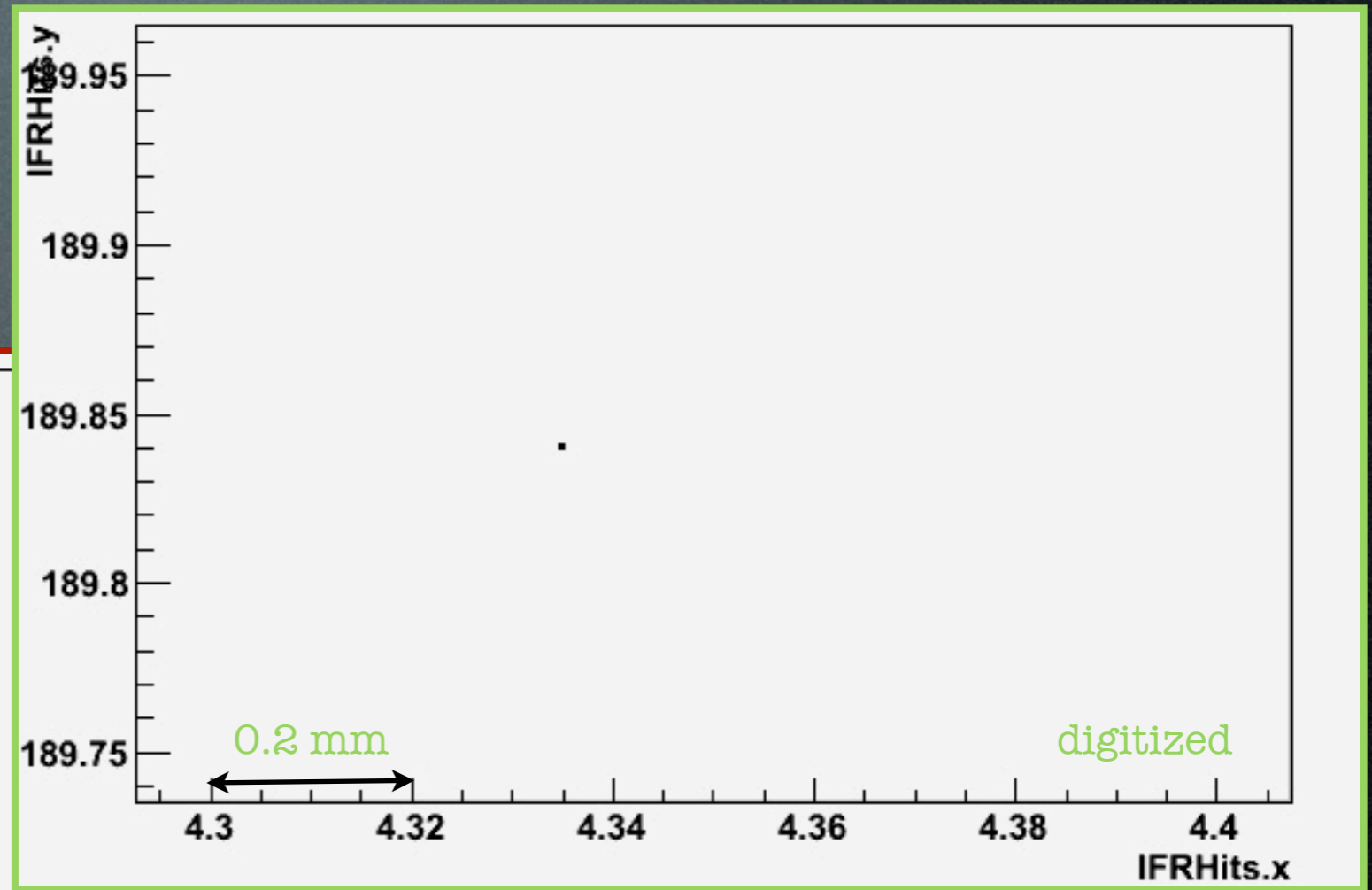
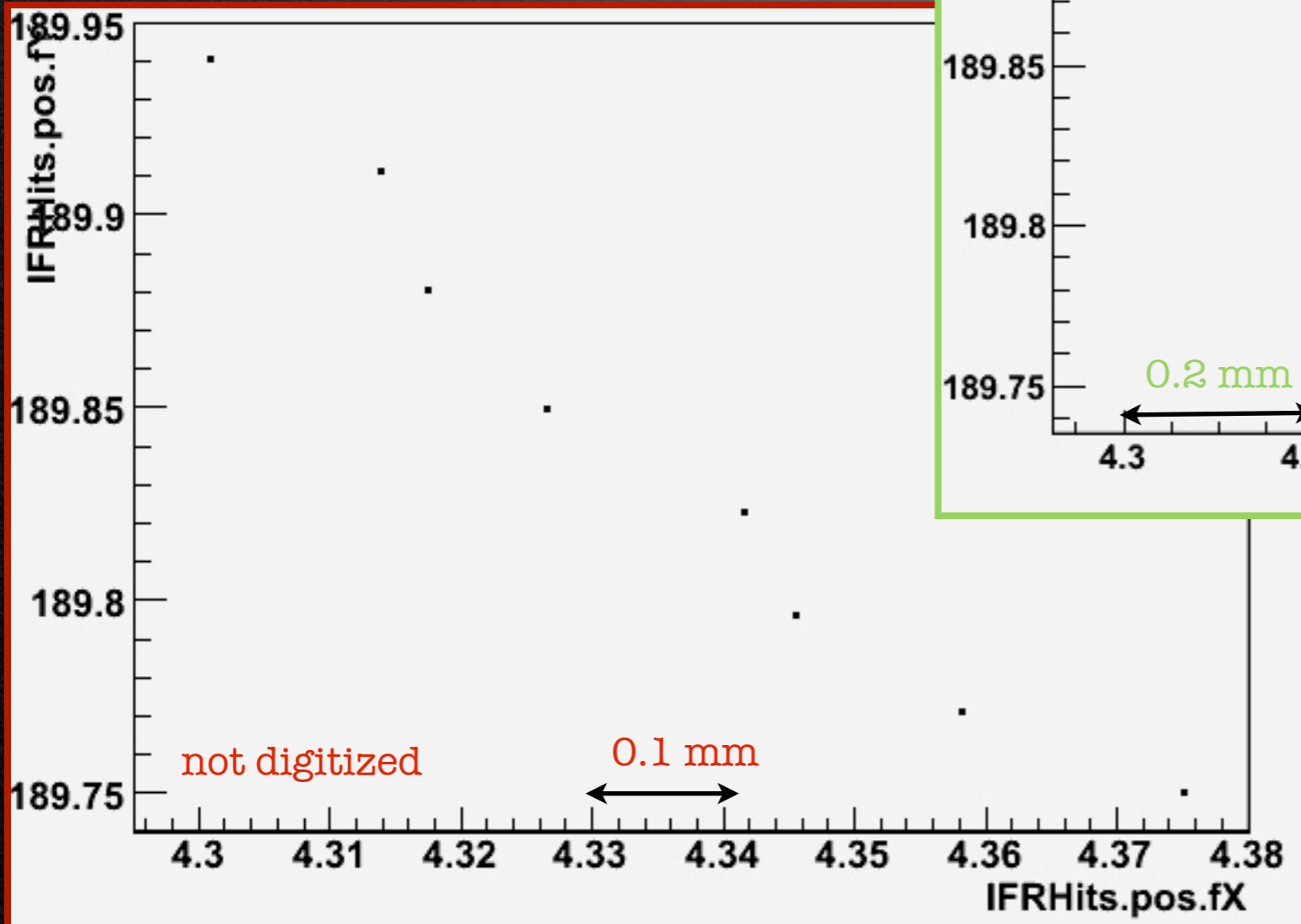


Digitization (V)

Red =
GHit
digitized



Digitization (VI)



Digitization Summary

Digitization for 1000 muon	YES	NO	Summary
computing time	25 s	24 s	+4%
dimension of file .root	0,8	1	-20%

Conclusions and open issues

- Geometry *.gdml files are working
- Good Tool (Bruno) for full simulation
- With Bruno we can shot every particle
- First version of digitization are working and the dimension of hits collection decreases of 20%.
- We have to improve digitization considering the position.
- Study of hadronic showers to be done