

ALICE MUON Software for run 3

Sean Murray

Physics

University of Cape Town

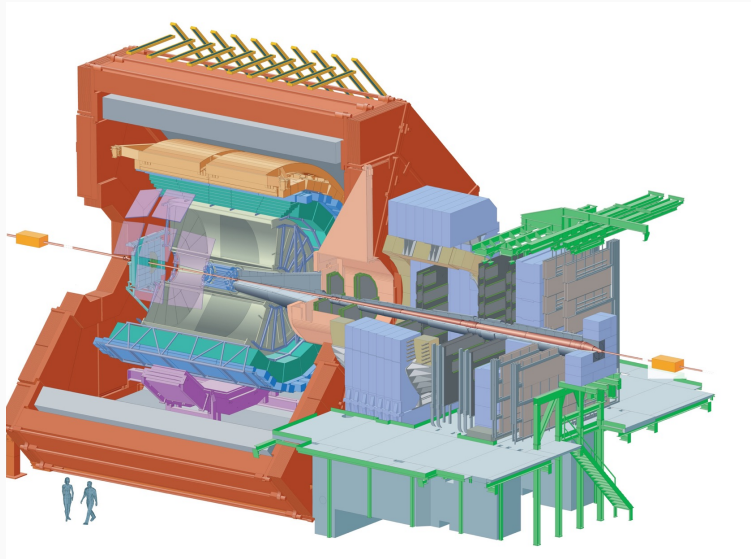
July 6, 2016

ALICE

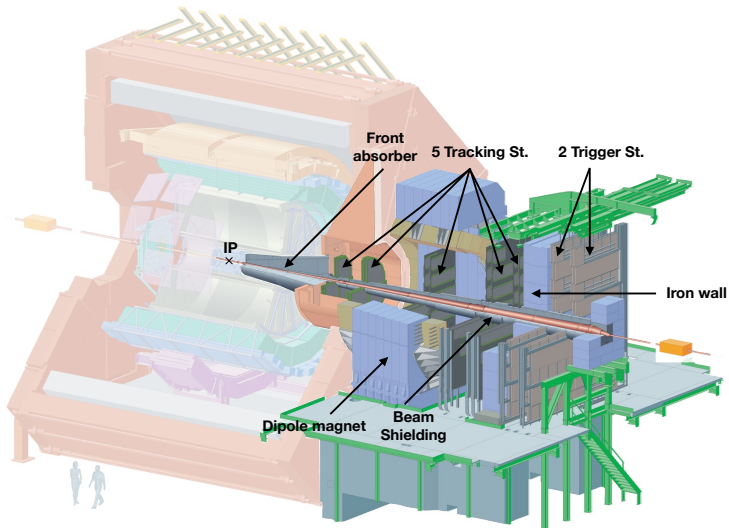
O2 and Run3

Current MUON Software

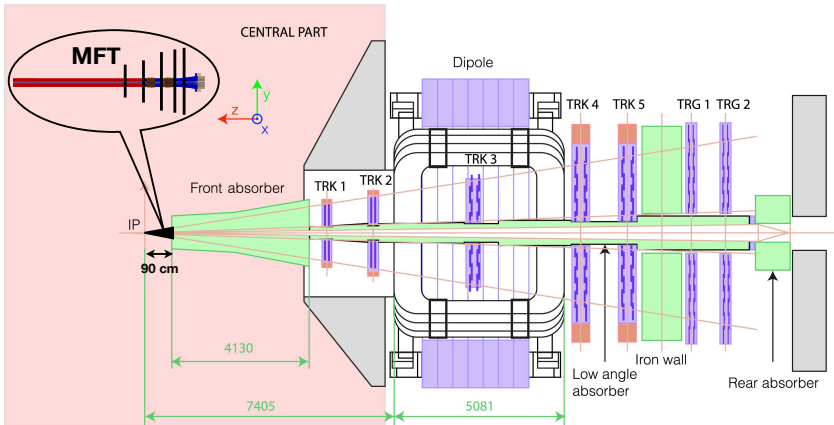
Cluster Finder



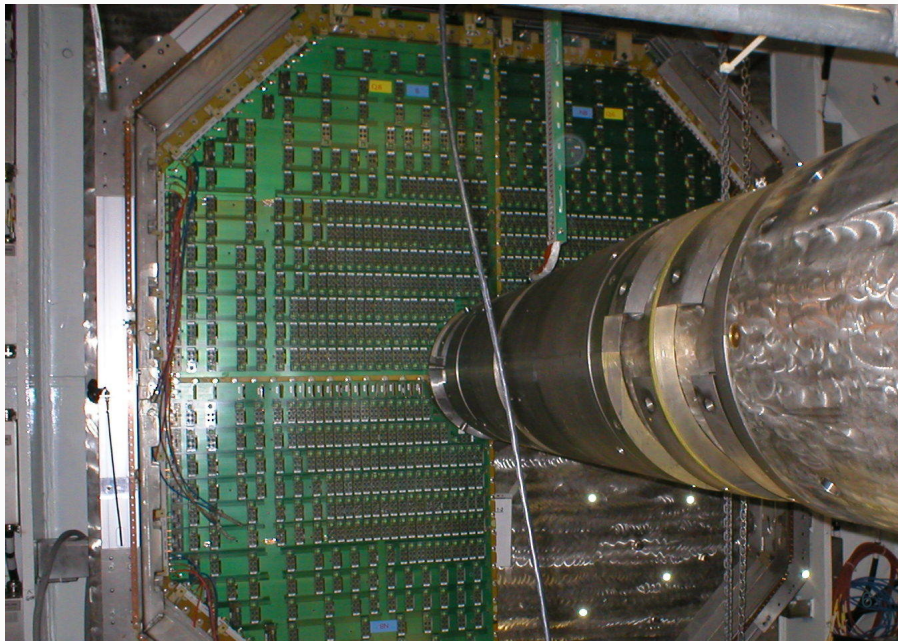
ALICE MUON Arm



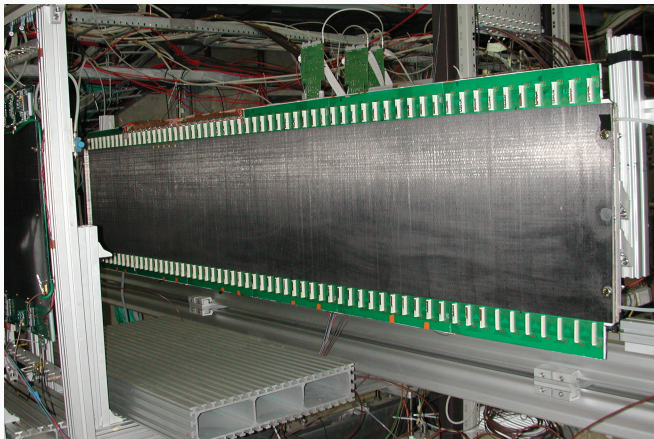
ALICE MUON diagram



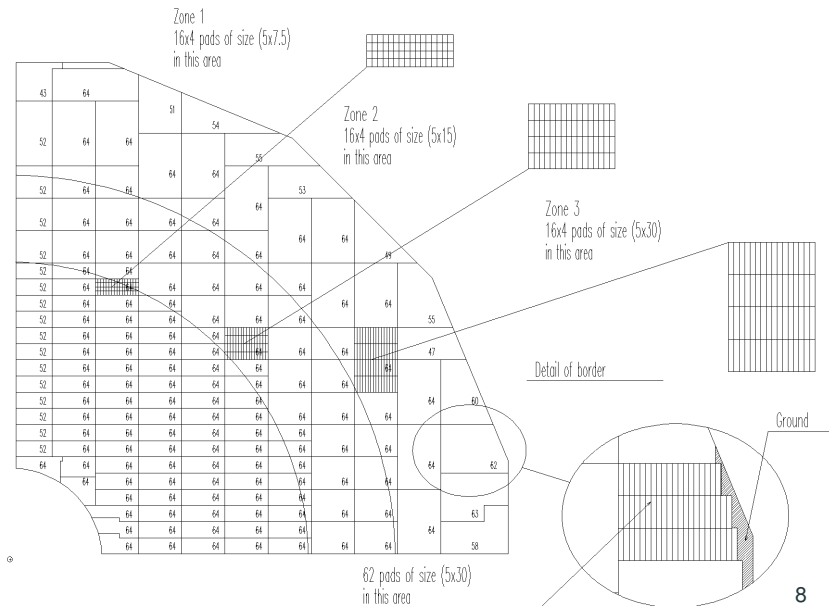
Detector Structure Station1



Detector Slats



Detector Slats in Position



ALICE

O2 and Run3

Current MUON Software

Cluster Finder

ALICE

O2 and Run3

Current MUON Software

Cluster Finder

- Raw Data Decoding
- Raw Data Filtering
- Pre Clustering
- Clustering
- Tracking (MCH)
- Tracking (MID)
- Track Matching MCH-MID

Time Spent

Function	Time in %		
	pp 16	PbPb 11	PbPb 15
Raw Data Decoding	4		
Raw Data Filtering	2		
Pre Clustering	10		
Clustering	63		
Tracking MCH	7		
Tracking MID	6		
Track matching	8		

Need more data for broader run (PbPb, pPb, pp) and errors.

ALICE

O2 and Run3

Current MUON Software

Cluster Finder

What is a cluster finder

picture of a couple of clusters.

- some stuff

- Add Virtual pads if necessary
- Find Center of Gravity given maximal pixel
- aaa

Effect of not adding Virtual Pads