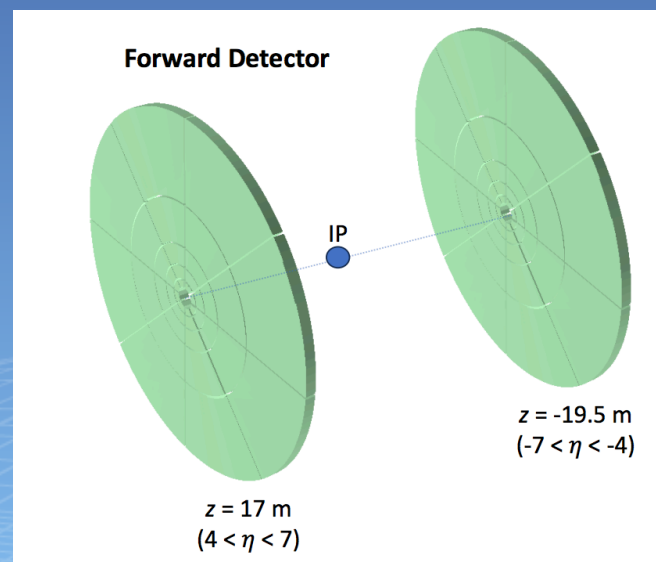
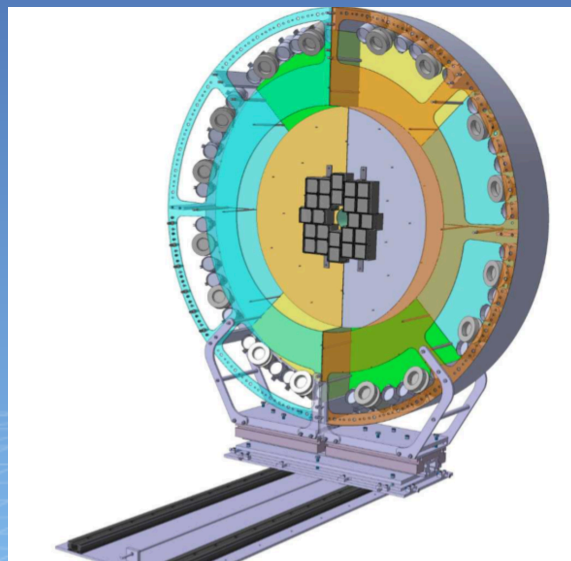
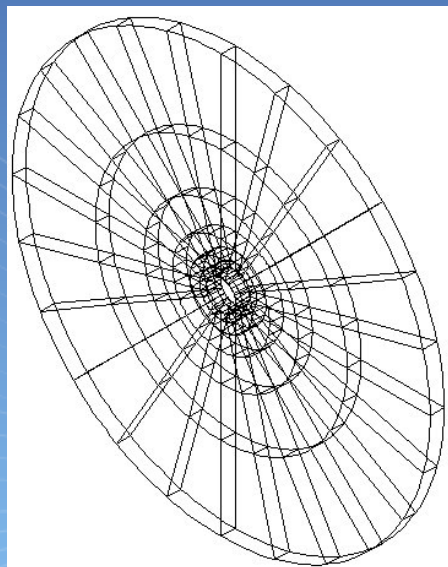
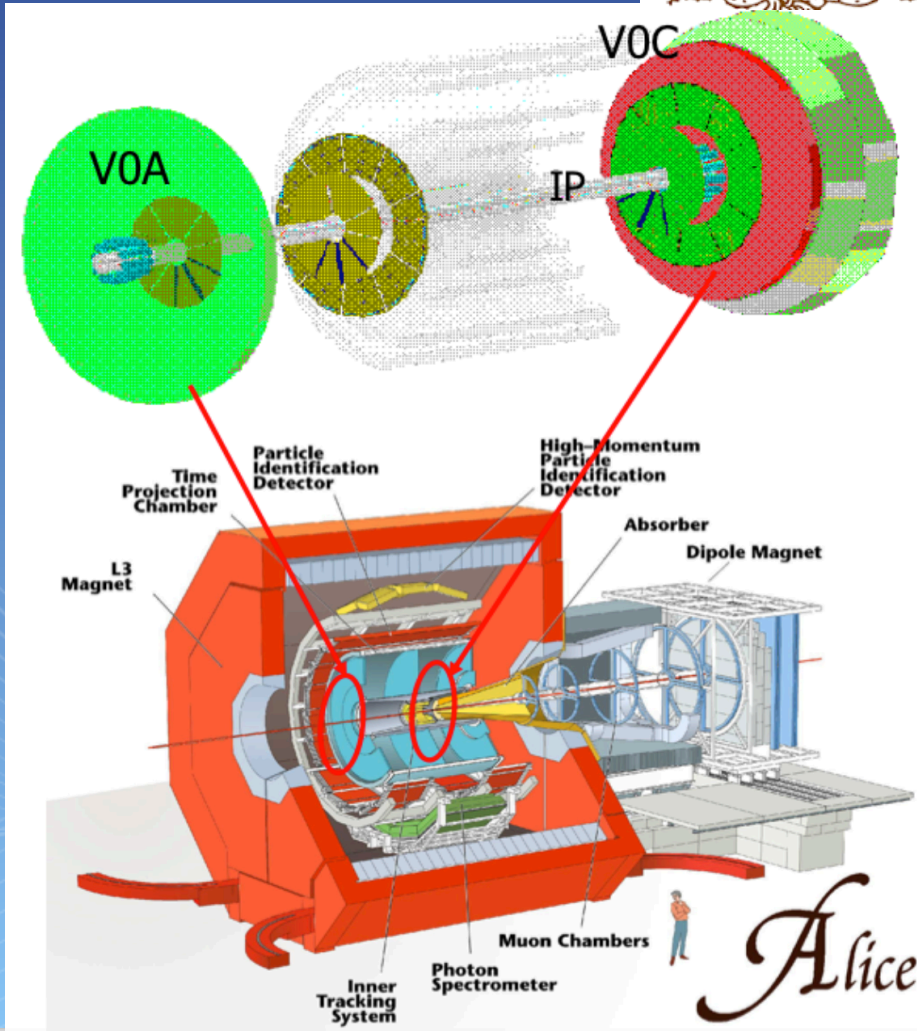




VOA, Past, Present, Future





Minimum bias

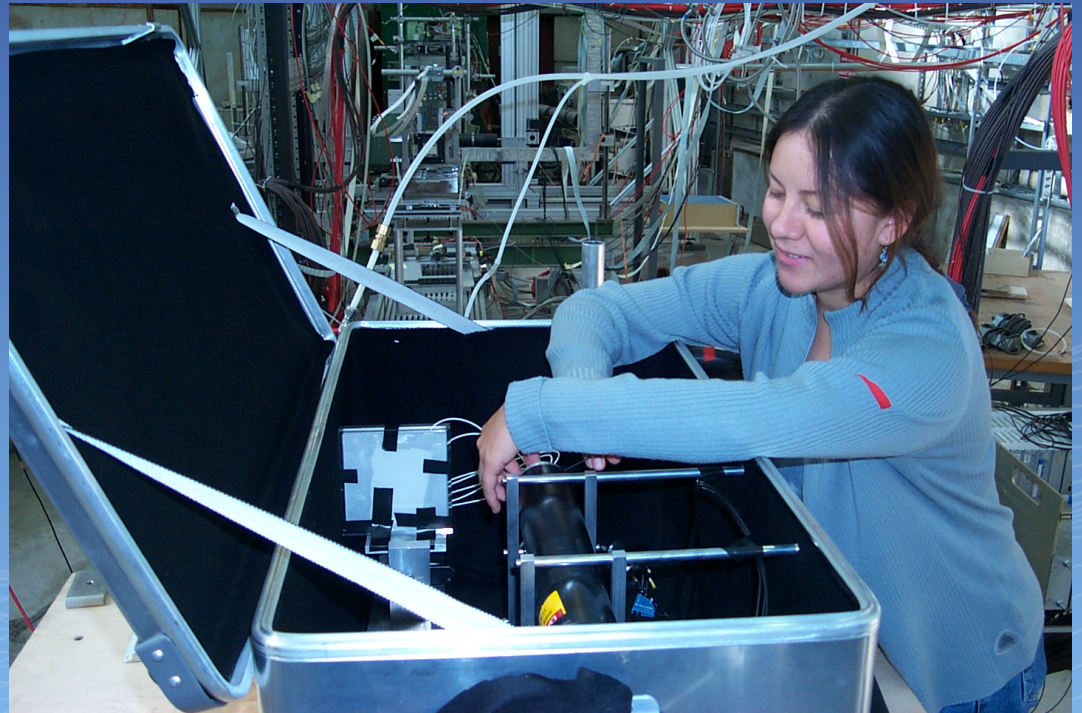
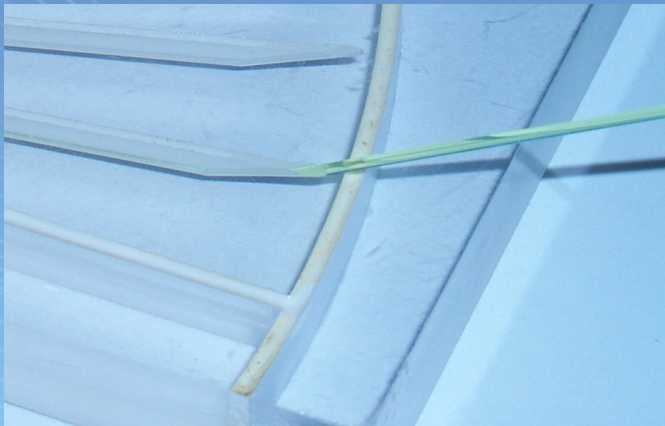
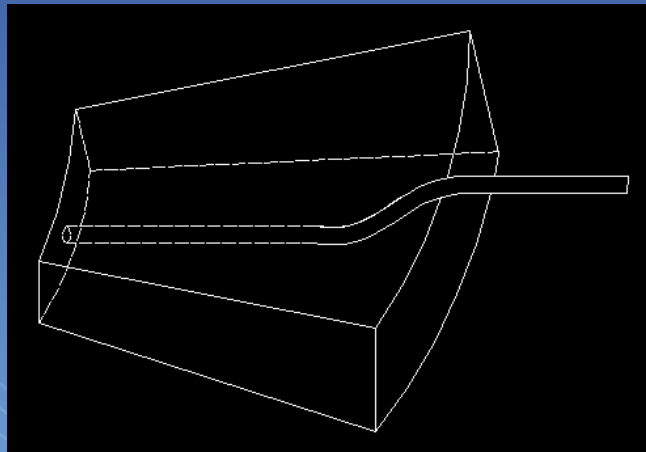
Background rejection

Centrality indicator

Luminosity monitor

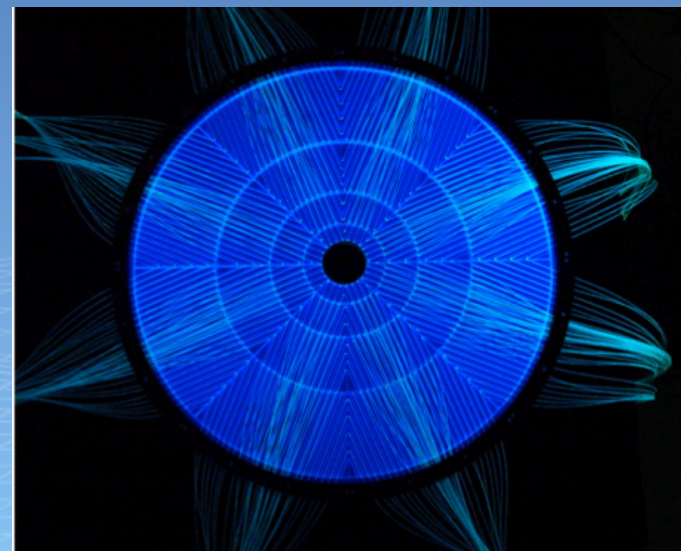
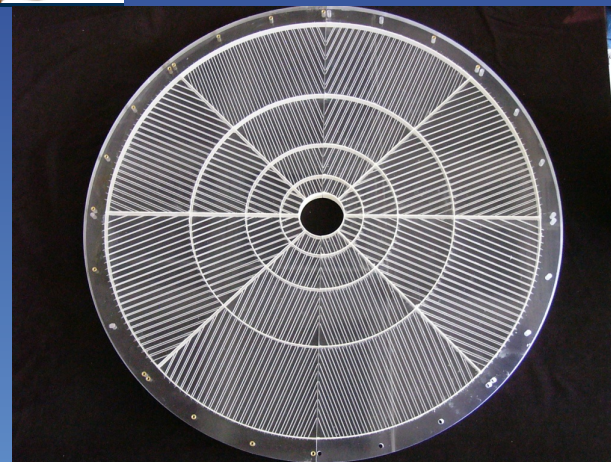
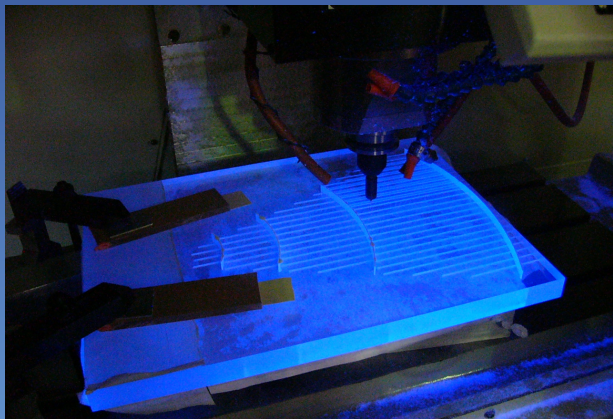


Innovative design : Megatile



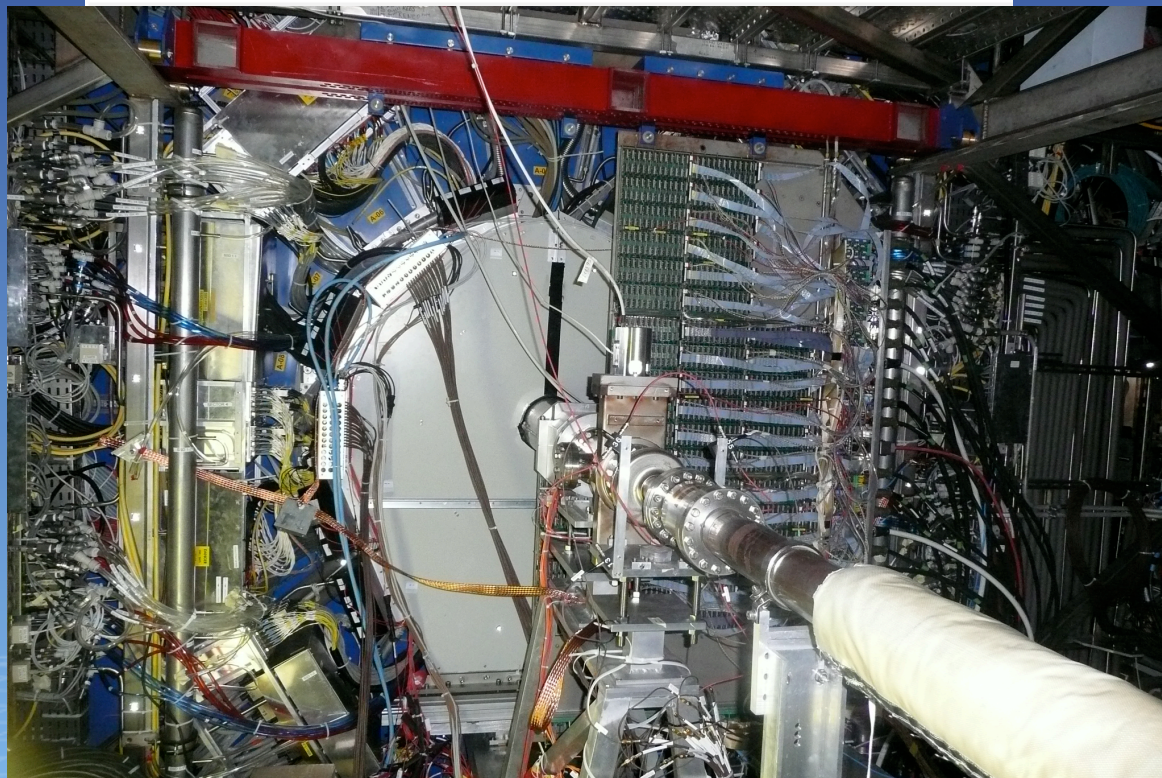
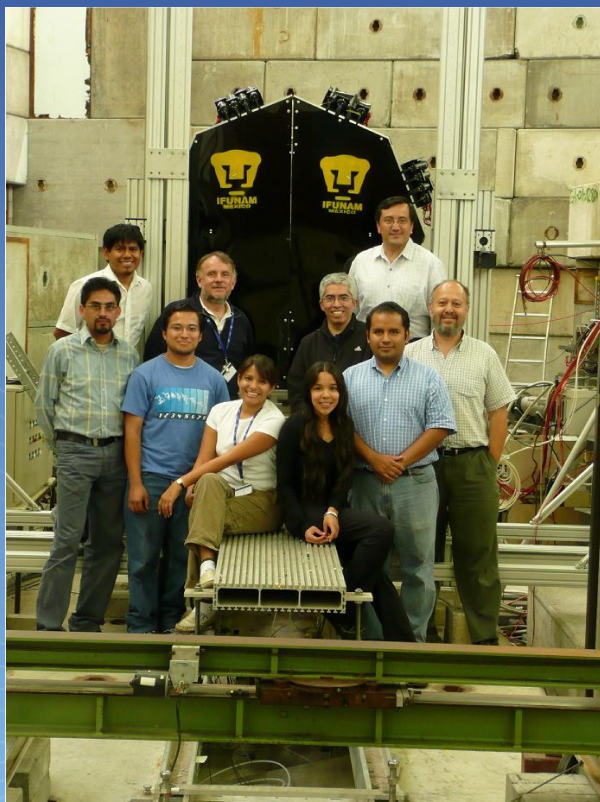


Innovative design





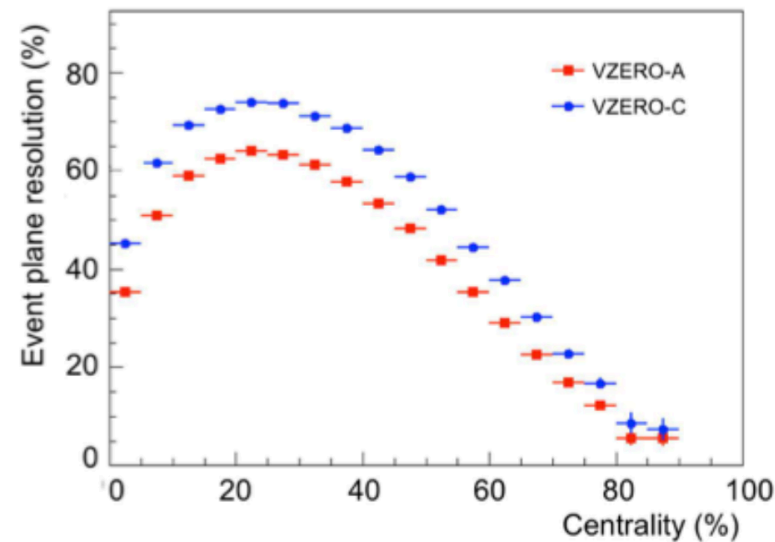
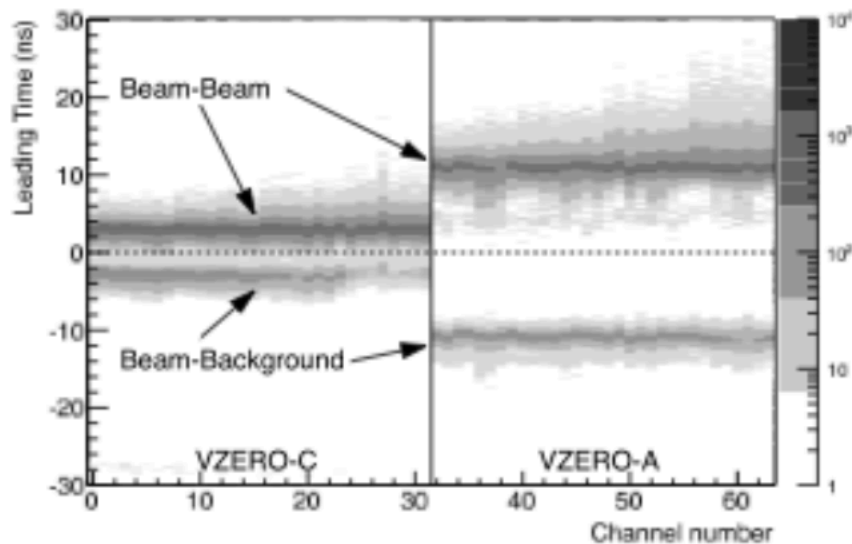
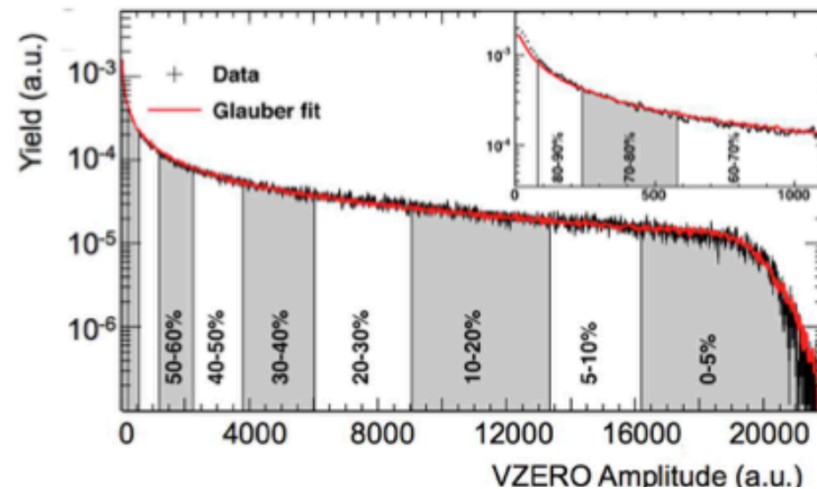
Test and installation in ALICE



V0A



Excellent performance

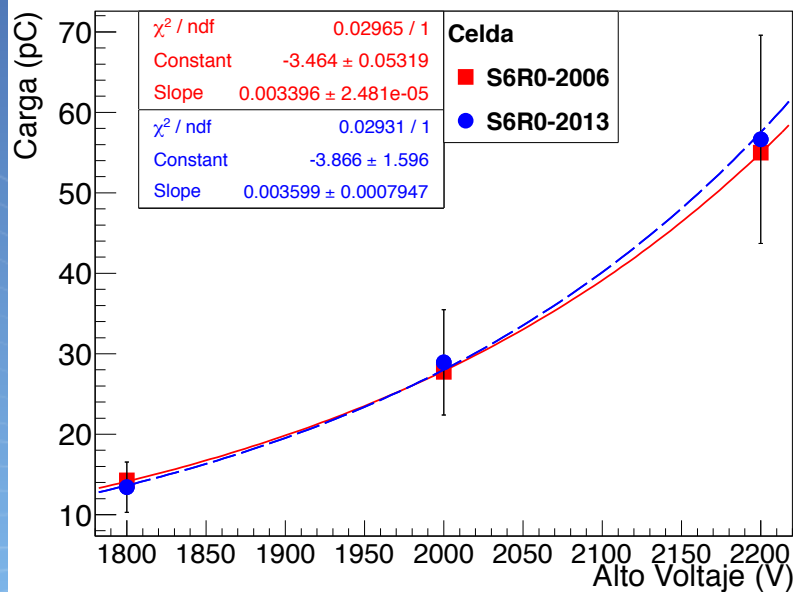




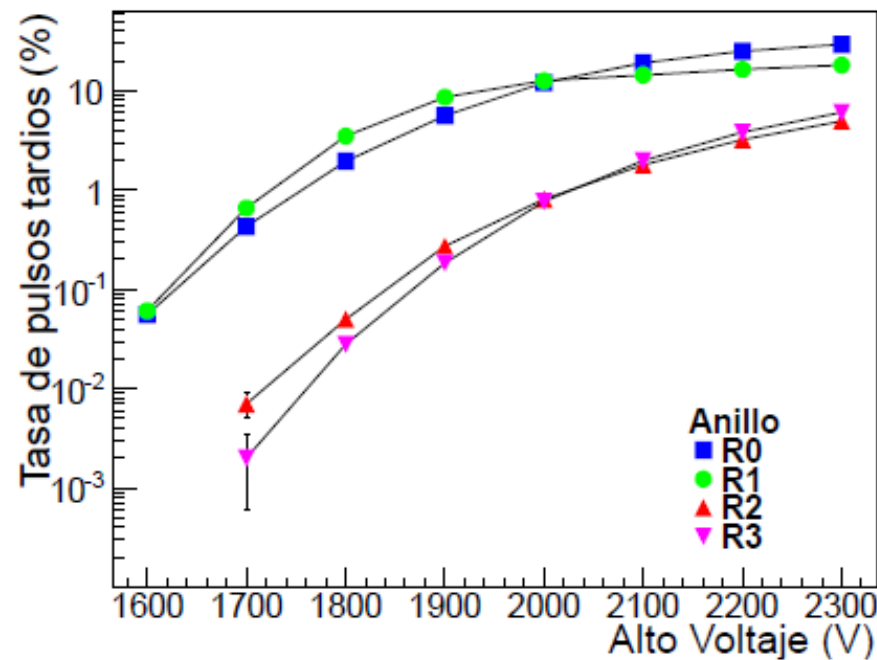
Some issues can be improved

After Pulsing

Ageing effects



(a) S6R0



(a) Sector 6



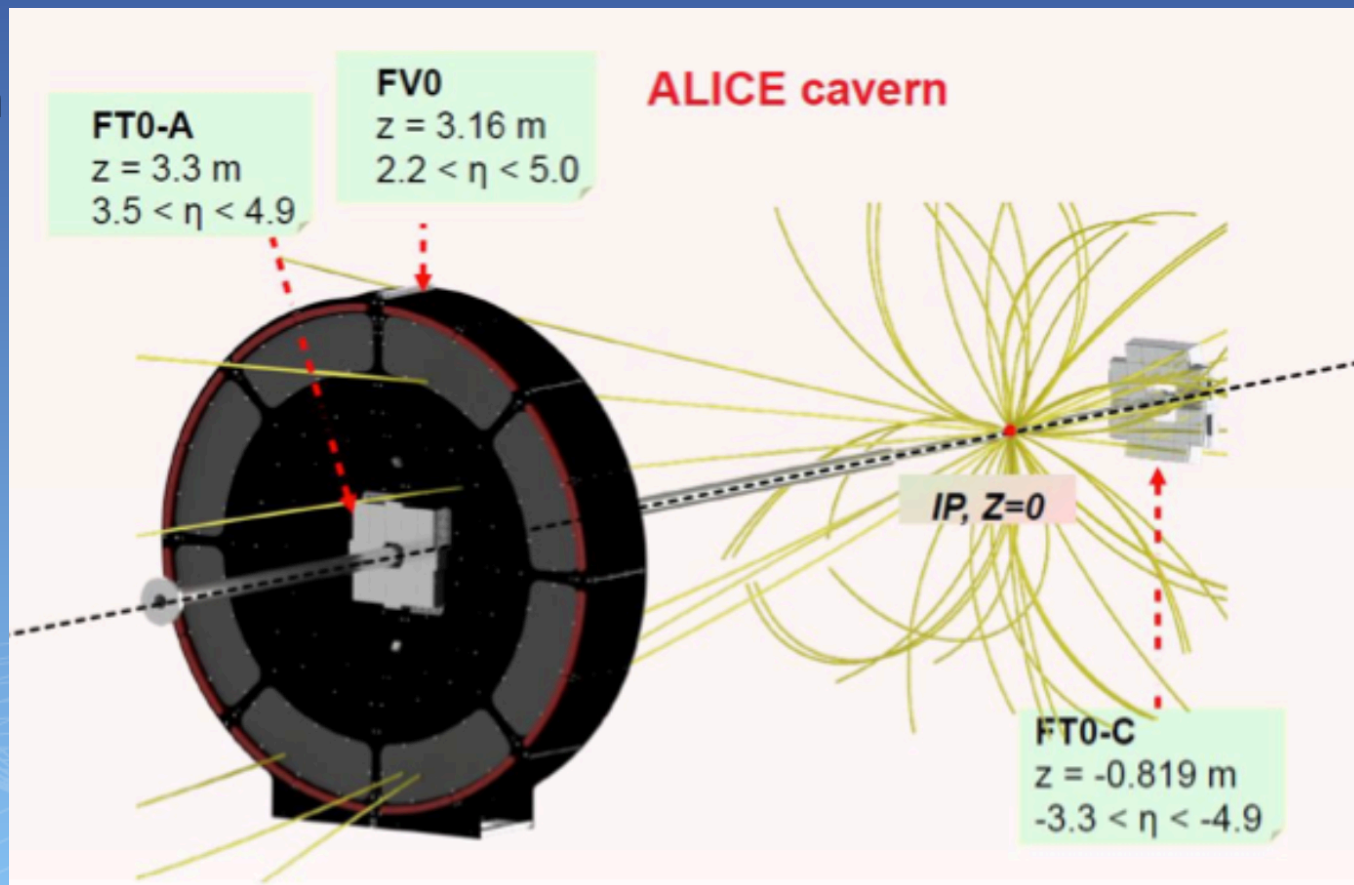
PRESENT: For Run 3, new requirements so a better V0 is developed

Time resolution
< 250 psec

Reduce after-
Pulsing

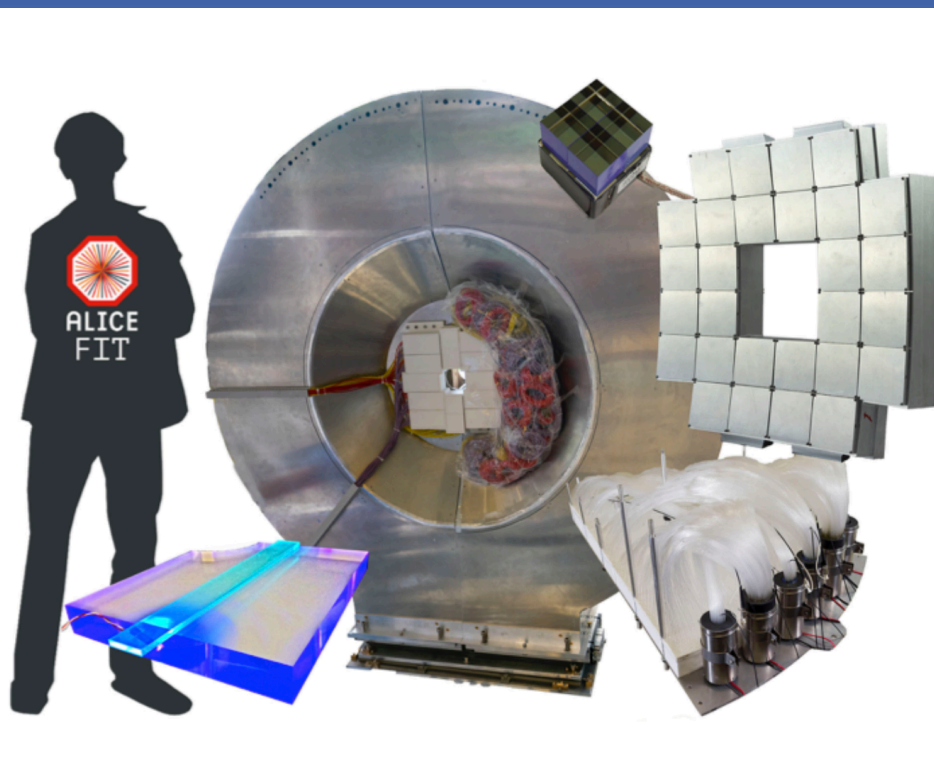
Reduce ageing

Increase the
active area



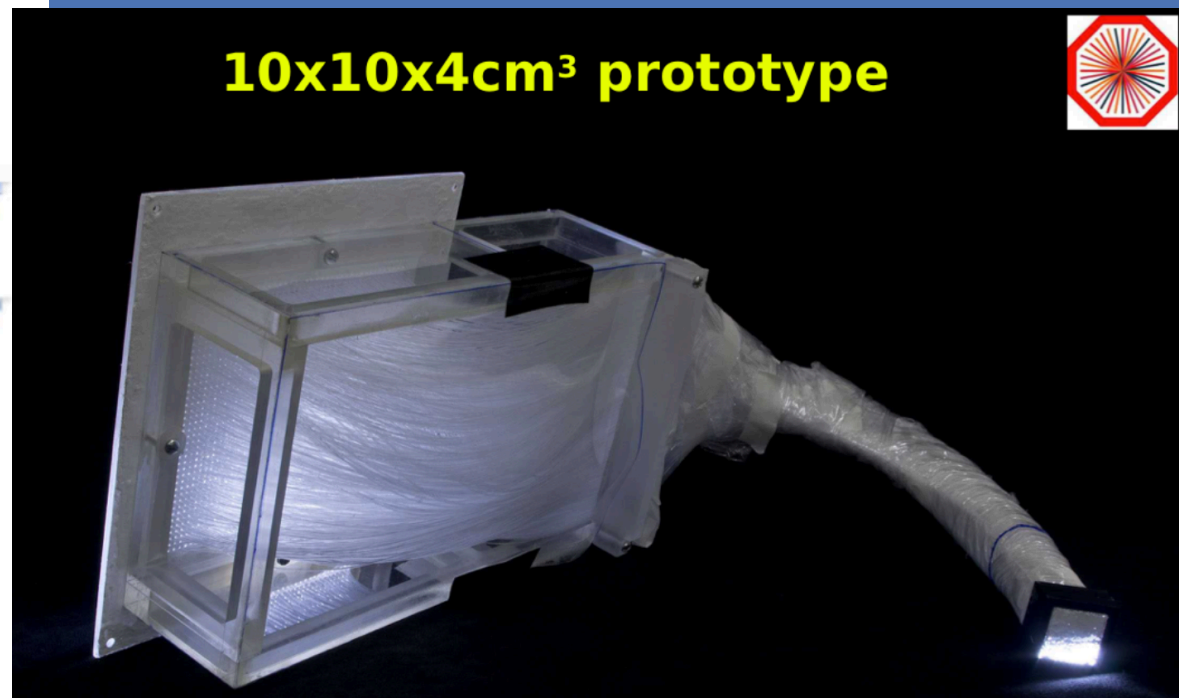
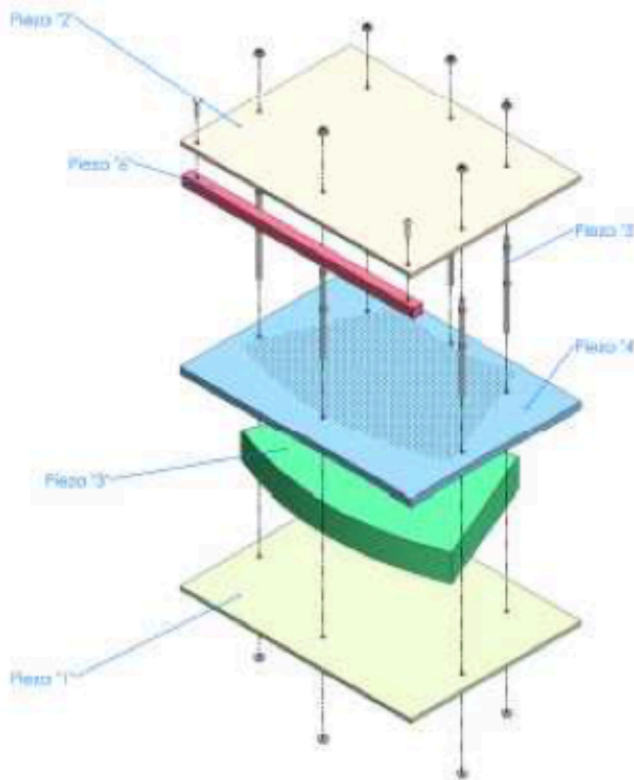


PRESENT: V0A became FIT FV0



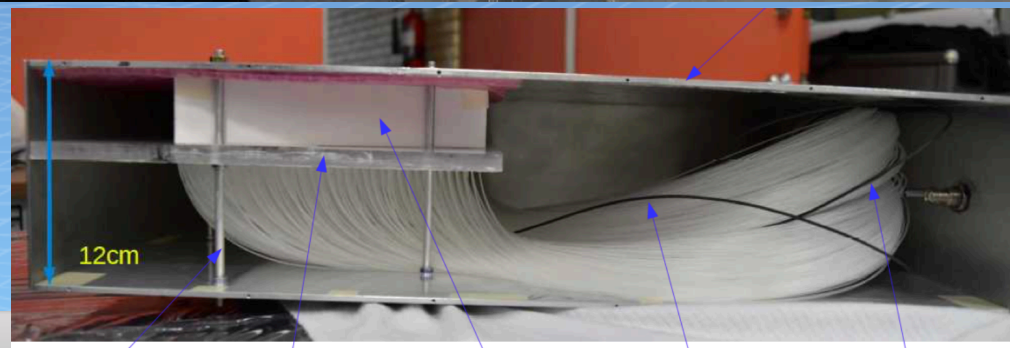
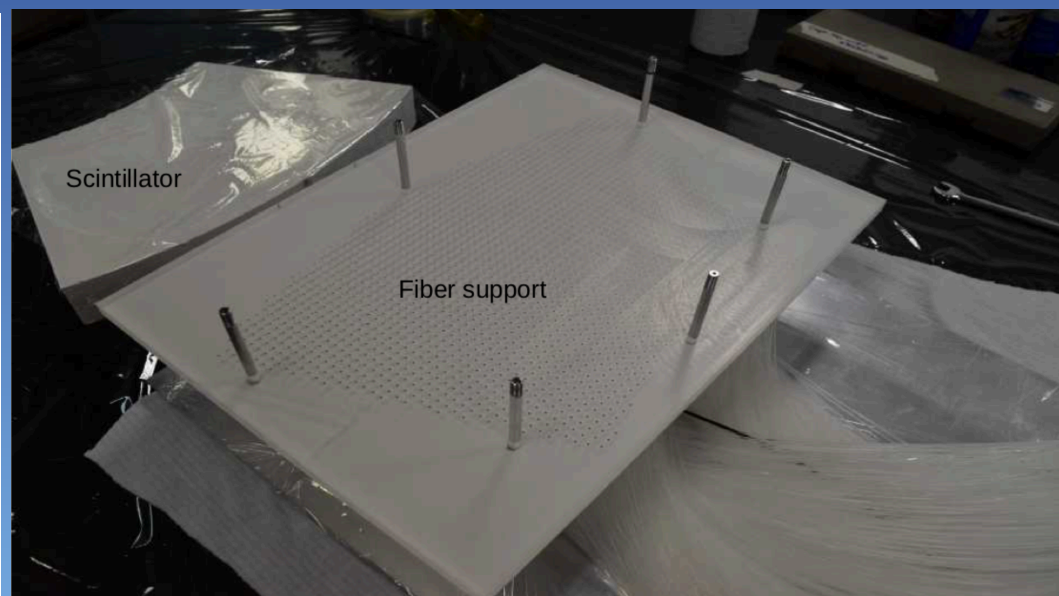
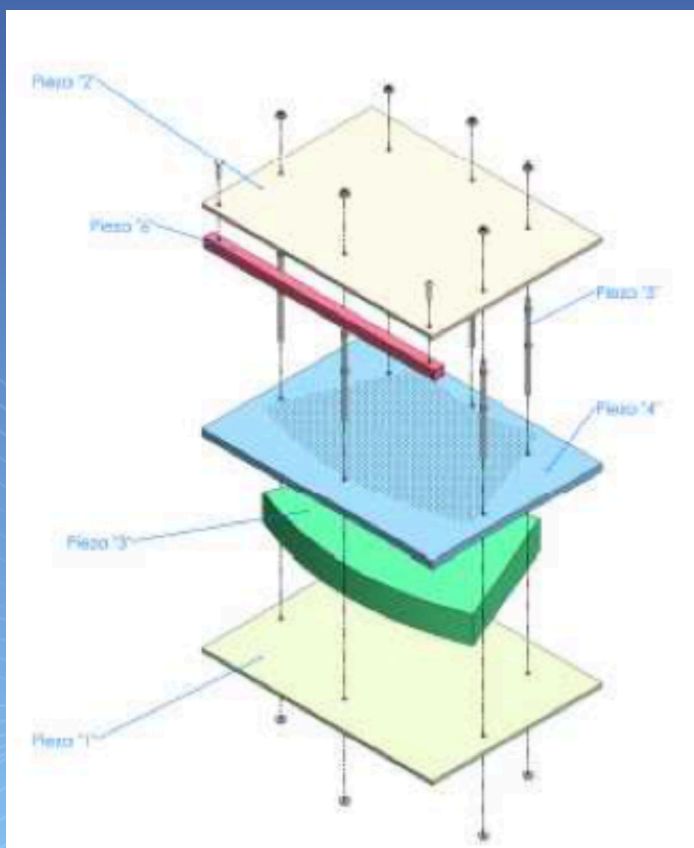


Innovative design : Direct light collection by clear fibers



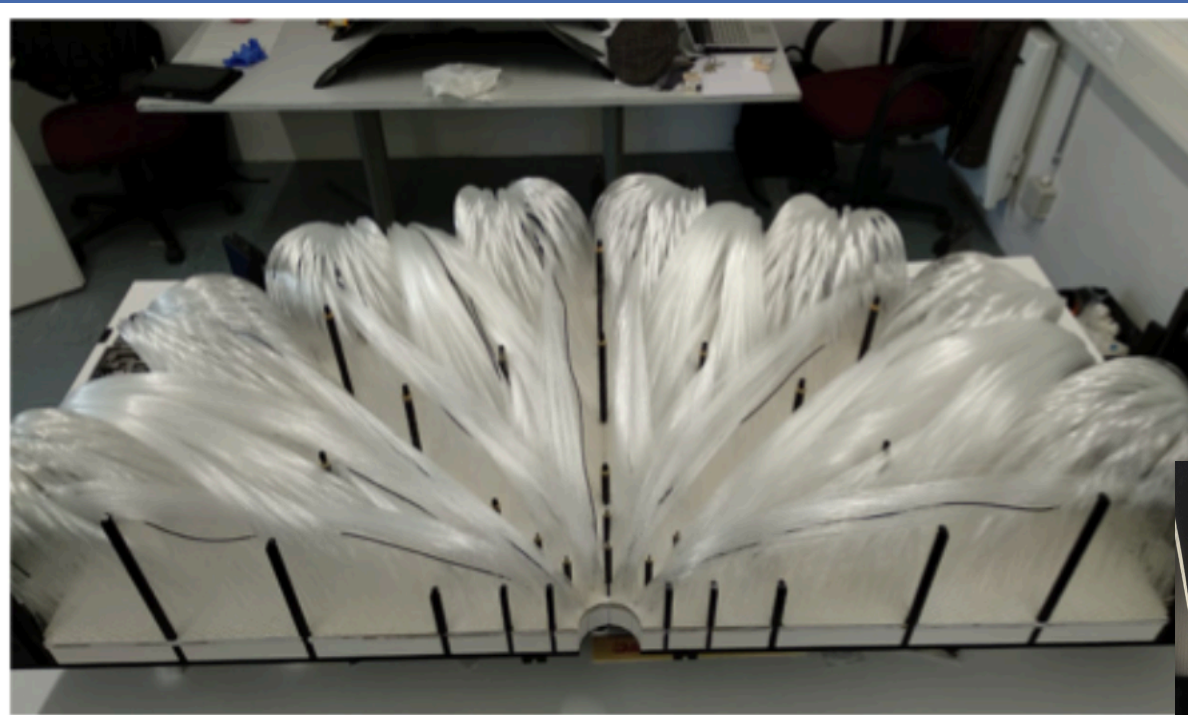


Innovative design : Direct light collection by clear fibers



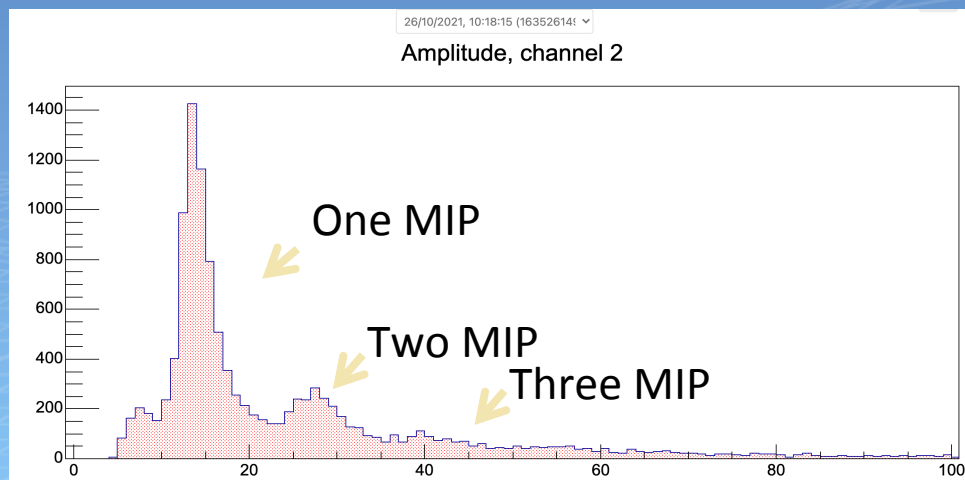
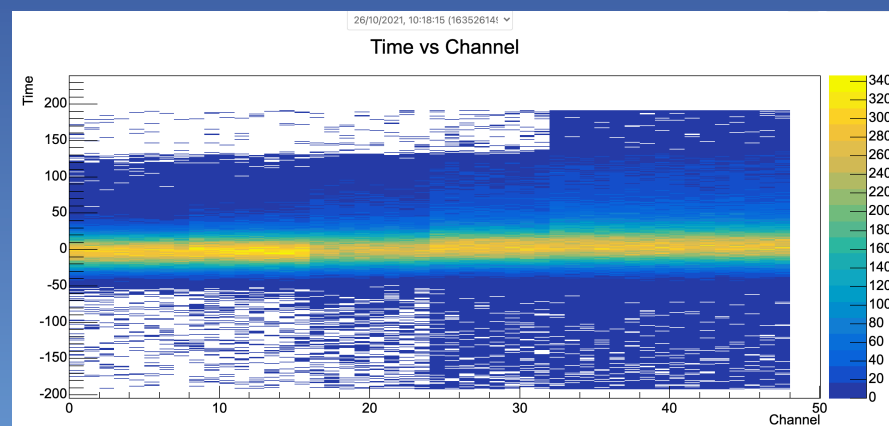


Innovative design : Direct light collection by clear fibers



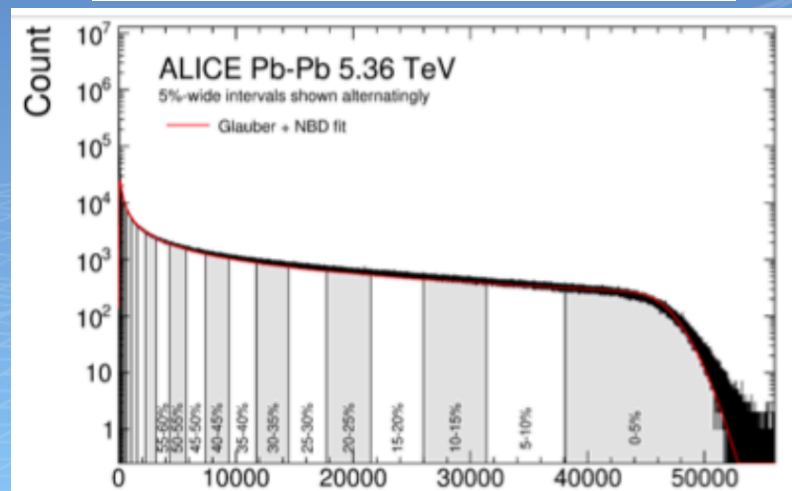
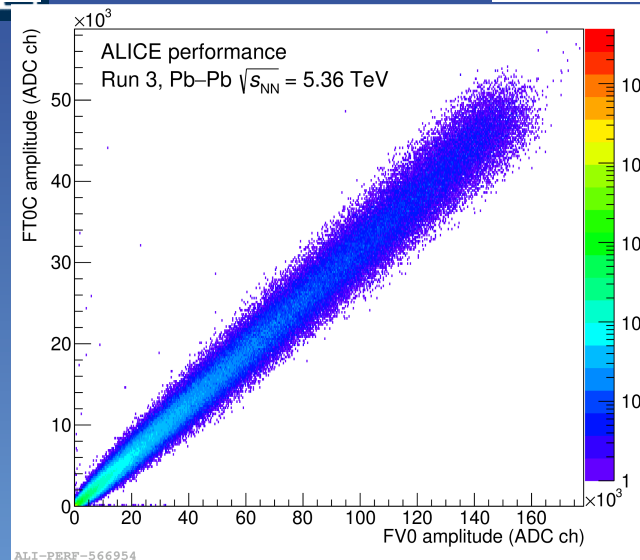
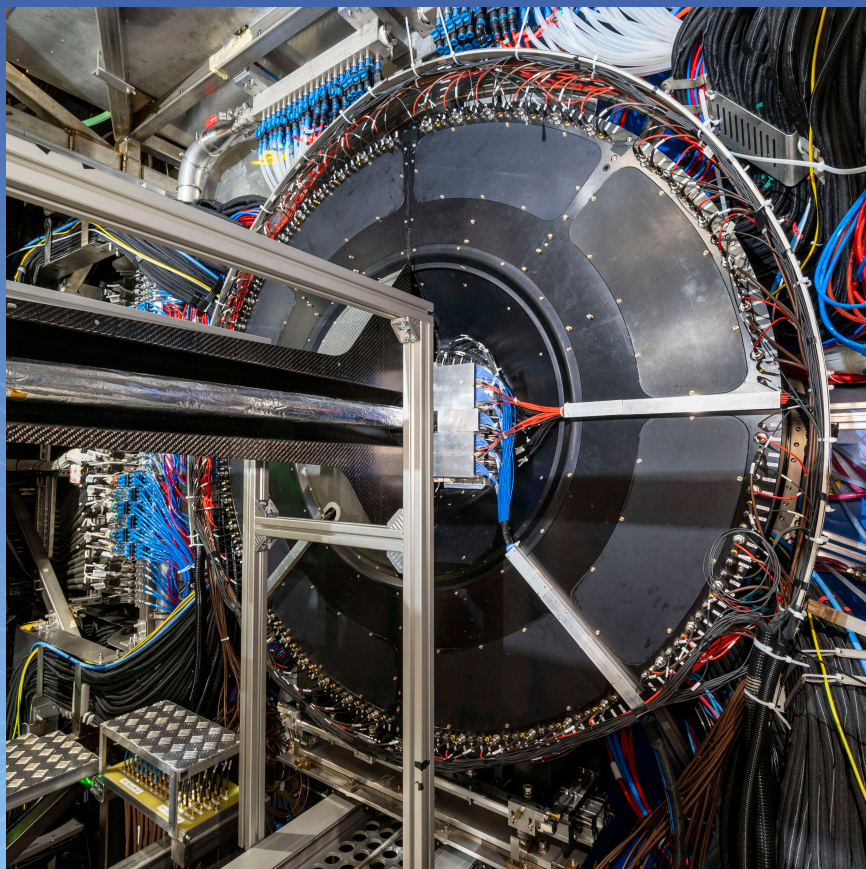


The FV0 fulfill the requirements



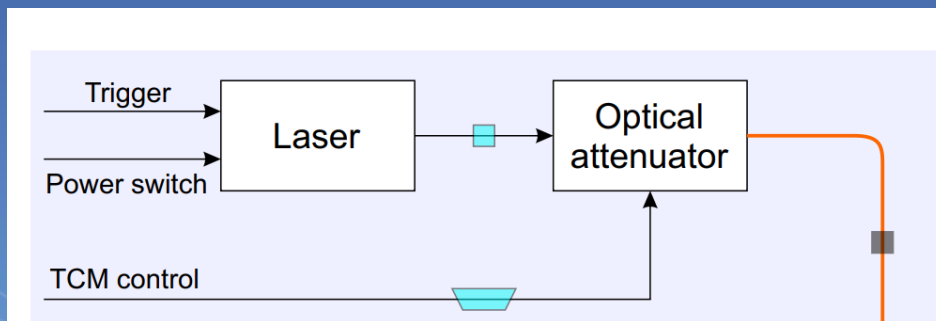


Excellent performance





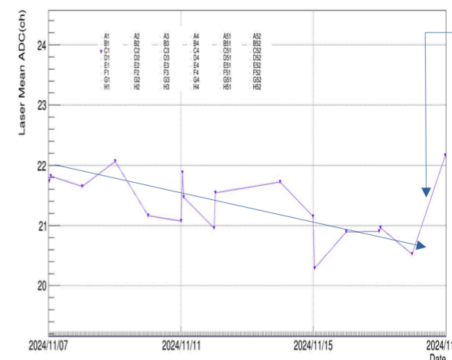
Improving previous issues: After-pulsing, more light, less voltage



Only 7 sectors has >5% ageing

Because of the low gain,
High precision monitoring
is required

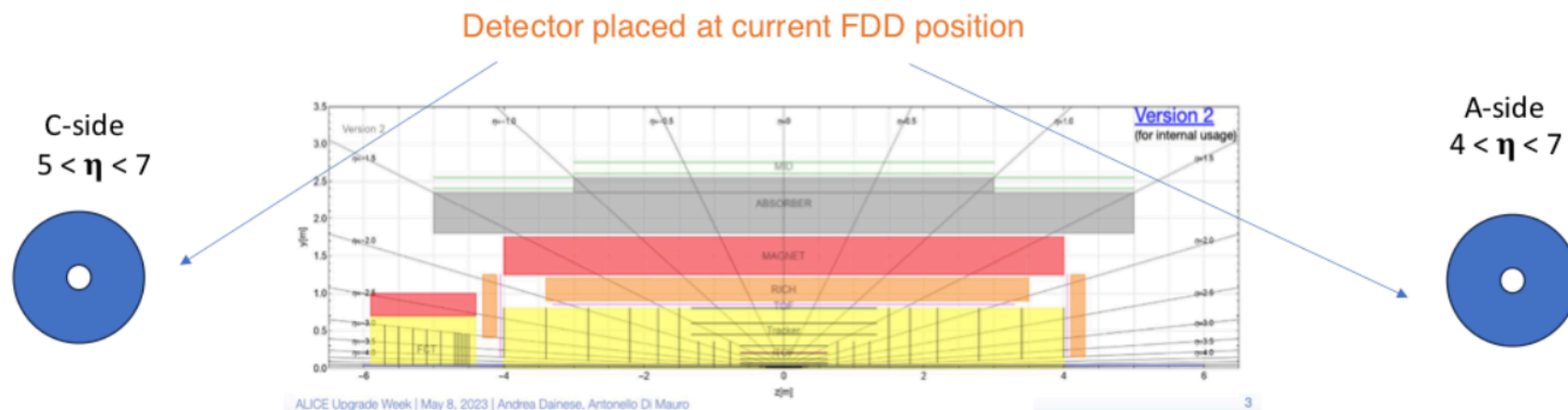
Laser Scans during the Ramp Down pos. polarity



In some channels are seen ageing 5-7%

FV0 Future: A initial proposal mainly from FIT collaborators.

New Forward Detector in ALICE 3



- ❑ Time and charge measurements at very forward rapidity
- ❑ Good granularity to measure central heavy-ion collisions
- ❑ Radiation hard and robust detector

From Jacek Otwinoski



Base line design



Proto-collaboration

Institution	Expertise
IFJ PAN / Poland	Mechanics and Cooling
AGH University / Poland	Readout, Online/Offline Software
WUT / Poland	DCS/DSS and Services
NCBJ / Poland	Online/Offline Software
UNAM / Mexico	Sensor R&D
NBI / Denmark	Commissioning and Installation

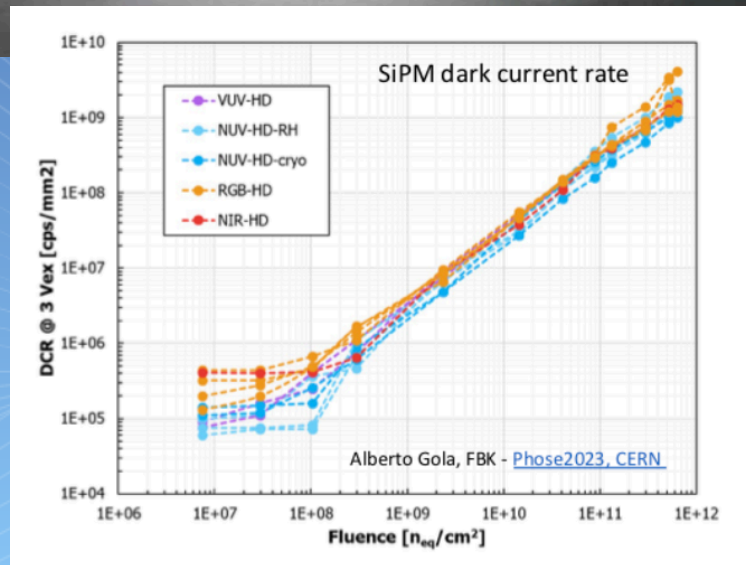
**C-side (8 sectors, 3 rings)
Possible diameter 52 cm**

**A-side (8 sectors , 5 rings)
Diameter 124 cm**

**Requirement :
At least 200 psec.**



Different kind of light sensor
Can be explore (SiPM), so it
Is possible to increase
granularity if it is need it. .



But dark current is a problem



Past, Present and looking forward the Future

