

Beam dump area for iRPC Upgrade project

M. Ali Shah, M. Gouzevitch, N. Zaganidis

- In the RPC group we use Beam Dump H8 area (R-M84) as “fast cosmic” tool to debug iRPC FE and Backend.
- We use gas pipe with right mixture from GIF++ gas area.



- We work in “parasitic mode” during periods where there is NO BEAM in GIF++ and when it is available.
- So we do NOT plan to use Beam dump during period listed below.

## 2022 T B periods

25/04 → 04/05 : GIF main user

18/05 → 25 /05 ( RD51 main user)

25/05 → 01/06 RD51 & GIF

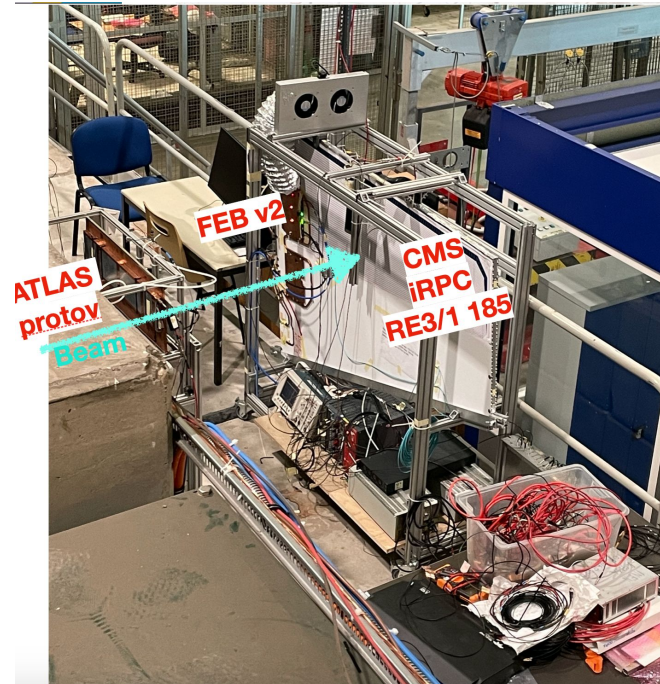
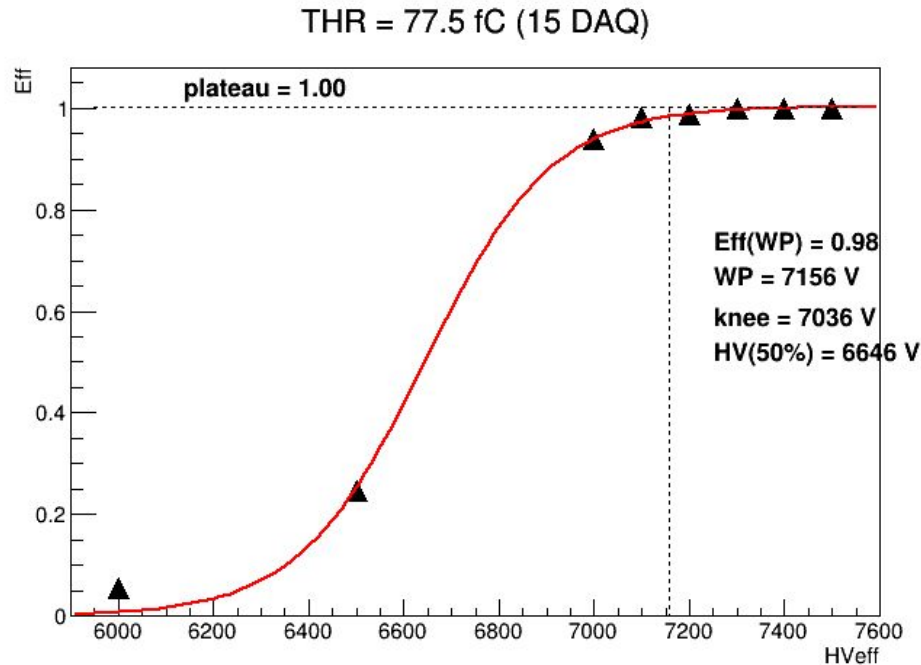
01 → 08 /06 GIF

13/07 → 27/07 RD51 & GIF

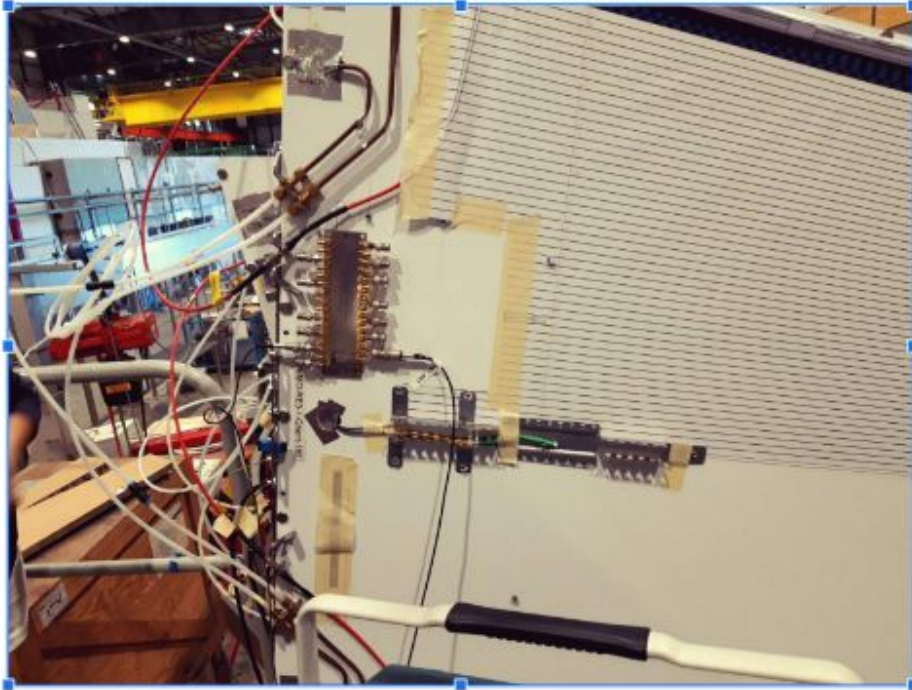
19/10 → 02/11 RD51 & GIF

# 2021 results in Beam Dump

- First efficiency plot of iRPC with FEBv2\_1 was obtained in beam dump area is Oct. 2021.



- Precise study of iRPC signal shape without pre-amplifier done for the first time in Beam dump in Nov. 2021



# Avalanch signals: charge and attenuation



$$\text{Charge} = \text{Area (pVs)} / 50 \text{ Ohm}$$

	Amp	Charge
HR	-10 mV	600 fC
LR	-7 mV	400 fC
Ratio	0.7	0.66
Rise time	1.5-2 ns	1.5-2 ns