



<http://gif-irrad.web.cern.ch/>

H2/H4 User Meeting

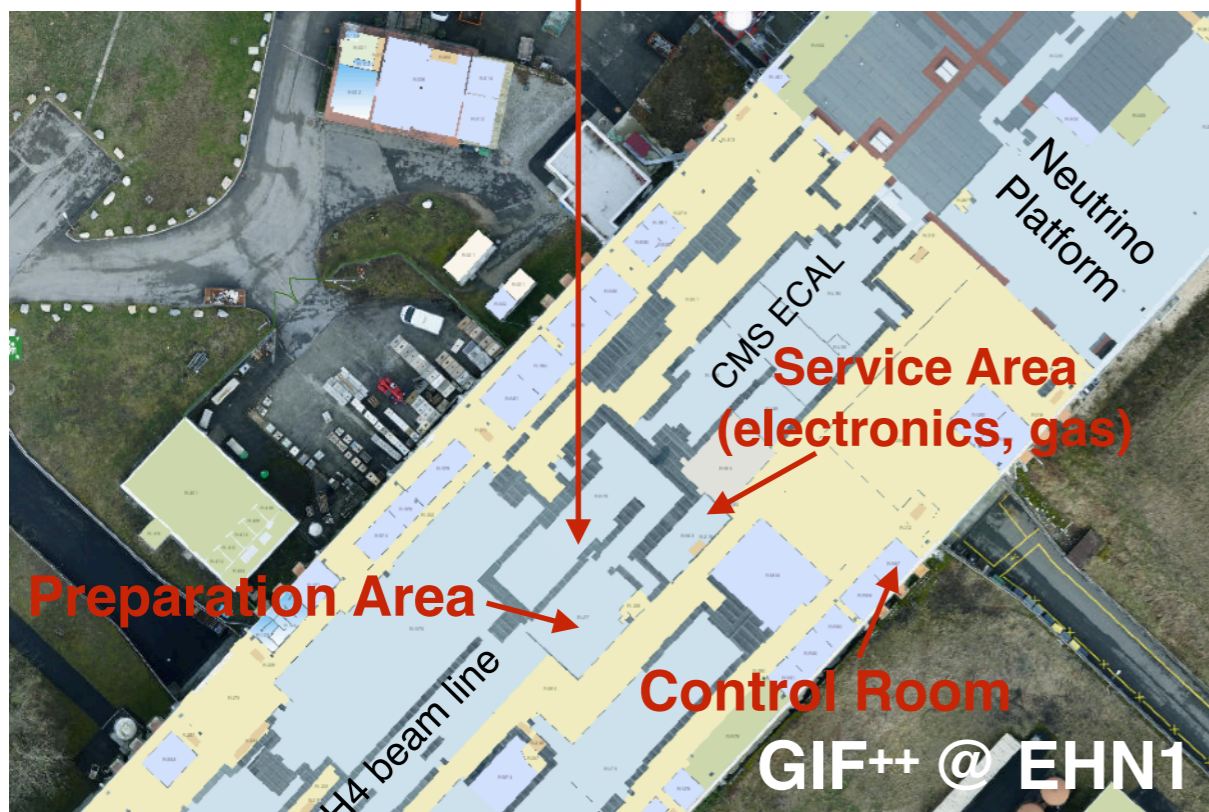
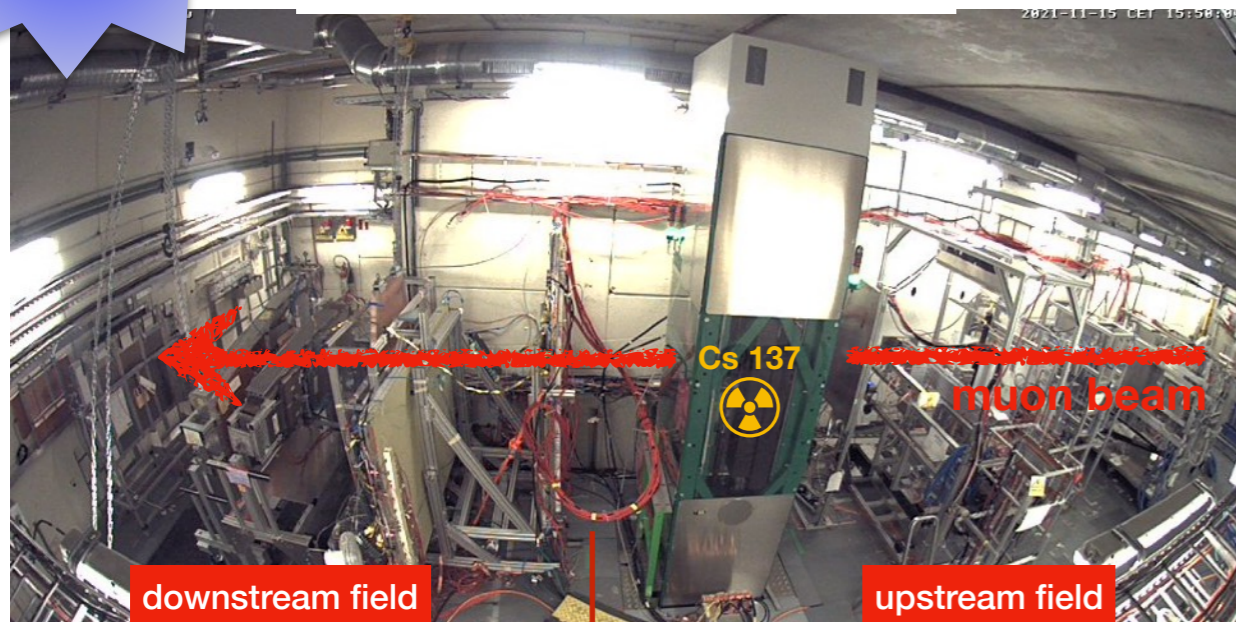
30.3.2022

M.R. Jäkel, G. Pezzullo & F. Ravotti

GIF++ @ EHN1

Irradiator operation throughout the whole year

Irradiation Bunker



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Introduction :

- Unique place, combining a **high energy muon beam** with a **14 TBq* ¹³⁷Cs gamma source**
- Joint EP & BE facility, operated by EP-DT**
- Designed for testing real size detectors**
- ≈100 m² irradiation fields, 2 irradiation zones with independent attenuation systems
- Central Control System, wide range of available gases (+ custom gases), common DCS...

*) As of 2014

Current R&D Program :

- Detector validation tests in presence of high radiation background & muon beam**
- Ageing studies under HL-LHC radiation conditions**
- Search for eco-friendly gas mixtures**
- Mass-production test of muon chambers**
- Radiation tests of electronics and optical components**

-> **5th Annual GIF++ User Meeting 2021**

GIF++ 2022 Beam Time



ATLAS NSW (MM & sTGC)
ATLAS & CMS RPC
ATLAS sMDT
CMC CSC
CMC DT
CMS GEM
EP-DT
ProTov-RPC
EcoGas
RE21/CBM

For 2022, we received a total of **16 requests** for individual setups (trolleys) to participate in Muon Beam time. Most setups consists of multiple chambers.

Most **setups** will be **installed** well before the beam time and will be participating in the all-year irradiation campaign (= ageing studies). Vast majority from CERN community, with known setups. **No special requests** for installations or gas etc (handled during normal yearly operation).

Standard setup file for Muon beams used during the last years is fine ! We agree with RD51 on muon/pions. electron beam or usage of Goliath is preventing us from measurements. Would be good to know when the **pre-dump** will be installed.

Need to schedule the installation & removal of **beam pipe** well in advance. Most setups are fragile prototypes. Although we need to move them only by $\leq 1\text{m}$, we need to have the experts around to move > 10 setups.

Extension of control room discussed with BE-EA. Solution found, hoping for a timely realisation.

For the time being, GIF++ keeps the **mandatory mask** mandate for the control room and the bunker area only. Will be reviewed for Q3 and Q4 test beam.

Current Plan for Beam Time - Distribution over the Weeks

		25.04	18.05	25.05	1.06	13.07	20.07	19.10	26.10	
Nr.	Setup / Week	17	20	21	22	28	29	42	43	Requested
1	ATL NSW MM		D	D	D	D	D	D	D	3 x 1 week
2	ATL NSW sTGC					D	D	D	D	3 x 1 week
3	ATL RPC	D	D	D	D	D	D	D	D	3 x 2 week
4	ATL sMDT	u	U	U	U	U	U	U	U	4 x 2 week
5	CMS CSC – 1	D	D	D	D	D	D	D	D	3 x 2 week
6	CMS CSC – 2	D	D	D	D	D	D	D	D	3 x 2 week
7	CMS CSC – 3					U?	U?	U	U	3 x 2 week
8	CMS DT	U		U	U					2 x 2 week
9	CMS GEM					D	D			2 x 2 week
10	CMS RPC – 1	U		U	U	U	U	U	U	4 x 2 week
11	CMS RPC - 3	U		U	U	U	U	U	U	4 x 2 week
12	iRPC (inside RPC3)									3 x 2 week
13	EP DT2	U			U	U	U	U	U	3 x 2 week
14	RPC ECOGAS					U	U	U	U	2 x 2 week
15	ProTov-RPC			?	?	?	?	?	?	2 x 2 week
16	RE21/CBM					?	?	?	?	1 x 2 week
	Upstream	5	1	4	5	6 (+1)	6 (+1)	6 (+1)	6 (+1)	
	Downstream	3	4	4	4	6	6	5	5	
	Beam Time	GIF Alone			GIF & RD51GIF		GIF Parasitic			

