Studies of Purification of the LHC RPC Gas Mixture at the **GIF**

Status July 08

RG, MC

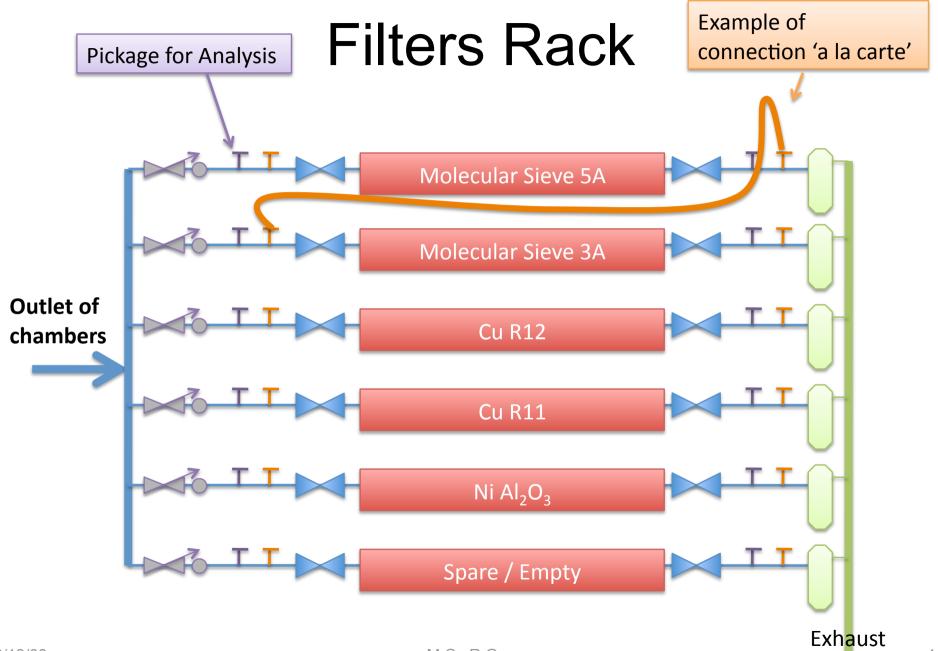
Status

- Set-up completed and fully operational
- Gas:
 - $C_2H_2F_4-iC_4H_{10}-SF_6$ [96.2-3.5-0.3] + H_2O
 - 1 volume exchange/hour
 - Open loop
- 5 CMS double gaps
- HV On (9.2 kV), Radiation On since few days

>>> PLOT

Immediate Plans

- 1. Checked chamber performance with radiation
- 2. Make reference Bakelite resistivity measurements
- Set-up F-measurement and scan HF concentration VS Chamber current for different concentrations of isobutane
- Perform detailed gas analysis of every filter individually (comparison fresh mixture VS purified mixture). Check conditioning time.
- Irradiate chambers, split equally the output gas, and cross check filters performance as planned



6/19/08 M.C., R.G.