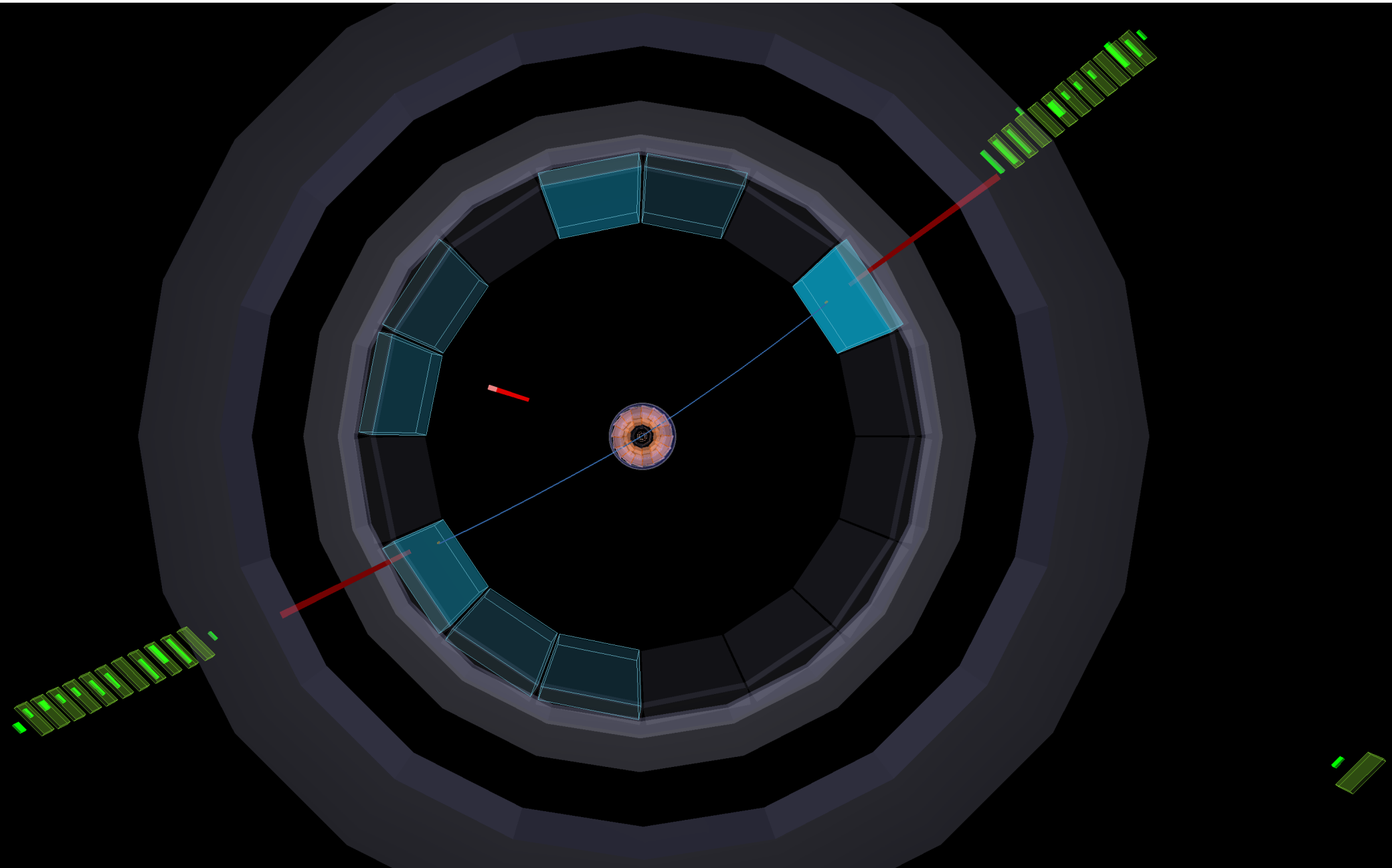


KLM Status

M. Beretta, R. de Sangro, G. Finocchiaro, B. Oberhof, I. Peruzzi, M. Piccolo
INFN - LNF

P. Branchini, A. Budano, F. Budano, S. Bussino, G. De Pietro, E. Graziani, A. Martini, A. Passeri, D. Tagnani
Università e INFN Roma Tre

Barrel KLM works!



Dettagli maggiori nel talk di Giuseppe

KLM Operations - Scintillators

- Scintillators DAQ firmware
 - Presently the EKLM FW is providing dummy data in order to be included in the common DAQ.
 - DOE review dedicated to EKLM two weeks ago provided some input
 - Provide a reduced scope FW version which would be able to provide a simplified data (no WF)
 - Additional manpower will be added at the end of June

KLM Operations - RPC

- RPC VME crates PS
 - Two sectors not reporting data due to a failure of the VME crates' PS
 - This is a problem that was discovered by us in October during the FEE boards installation, when we were able to fix three such crates. The two crates presently giving problems are different ones
- All the 16 crates will be replaced during shutdown next fall. U. of Fudan will procure the crates
 - The procurement is on hold due to a missing MoU agreement between KEK and Fudan U. This is a show stopper!
 - Need to participate to the replacement work, as it implies touching the FEE. We need a schedule for this which is still missing!

KLM Operations - RPC

- New RPC firmware code for remote uploading to FEE developed in Frascati (see Matteo's talk)
- New trigger stream slow control GUI allows debugging of the DAQ (see Giacomo's talk)
- We have contributed to cover 24/7 shifts for KLM on-call expert
 - LNF 9 weeks; Roma Tre 12 weeks

BKLM Software

- Manpower situation is critical
- Many software tasks are lacking coverage
- Several are covered by one person who is leaving at the end of August
- Data analysis just started
- Our group is taking on some critical tasks

	service task	people	activities
	Software tasks, based on proposals from Prof. Leo in Feb. 2018		
1	alignment of the detector panels using GCR/GCR2	Taylor Kimmel (VT)	
2	efficiency measurement by subsections of each detector	Zach Stottler (VT)	
3	implement measured efficiency in run-dependent		
4	hot/dead channel determination and history ->	LNF is interested in this topic	
5	timing calibration of each channel	Xiaolong Wana(Fudan)	
6	pulse-height gain calibration for the scintillators (no ADC)	Xiaolong Wana(Fudan)	
7	cluster strip-multiplicity distribution (how many	LNF is interested in this topic	
8	1D position resolution versus # of contiguous strips in a	LNF is interested in this topic	
9	background rates by BKLM layer	Roma Tre is interested in this	
10	background-hits profile (shape) vs theta phi layer	Roma Tre is interested in this	
11	background-hits overlay implementation		
12	magnetic field map in KLM - generate new map with steel		
13	list of physics processes to determine muon efficiency as	Roma Tre is interested in this	
14	determine muon efficiency in data and MC for selected	Roma Tre is interested in this	
15	Measurement of KL efficiency and reconstruction	Benjamin Oberhof (LNF) is	
	<many more>		

BKLM Operations - BKLM

- Concern: RPC Gas system
 - Presently the gas system doesn't provide a measurement of the outgoing flux, nor any method to control the gas mix quality
 - With an aging detector we think that debugging tools are crucial for the good operation of the detector
 - We are considering the possibility to implement this missing measurement. To be discussed within the KLM group