



# Detector "installation"

(M. Bonesini )

**INFN Milano Bicocca**



To be first and to be wrong is not so good (Σ. X.X. Τιμγ )

- A full detector debugging, testing with cosmics at home
- to solve (before installation) problems that show up (eg H6533 problems with active divider)
- a careful survey of constraints in the hall (beamline height as an example, ...) and preparation for installation

**is a must in my mind** before any installation attempt, to avoid delays/failures especially for small teams were working people may be enumerated before arriving to the value of  $e$  or  $\pi$

# TOF status (+KL) constraints

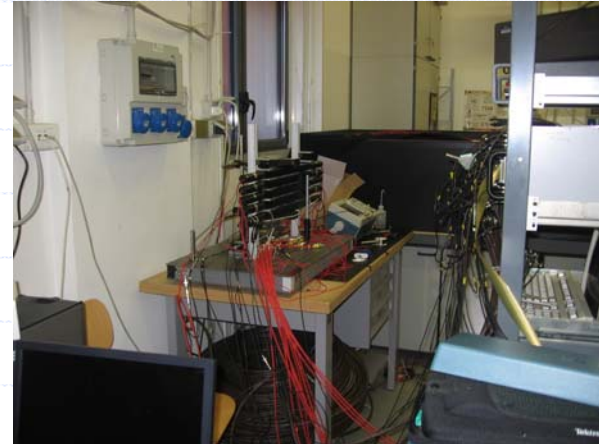
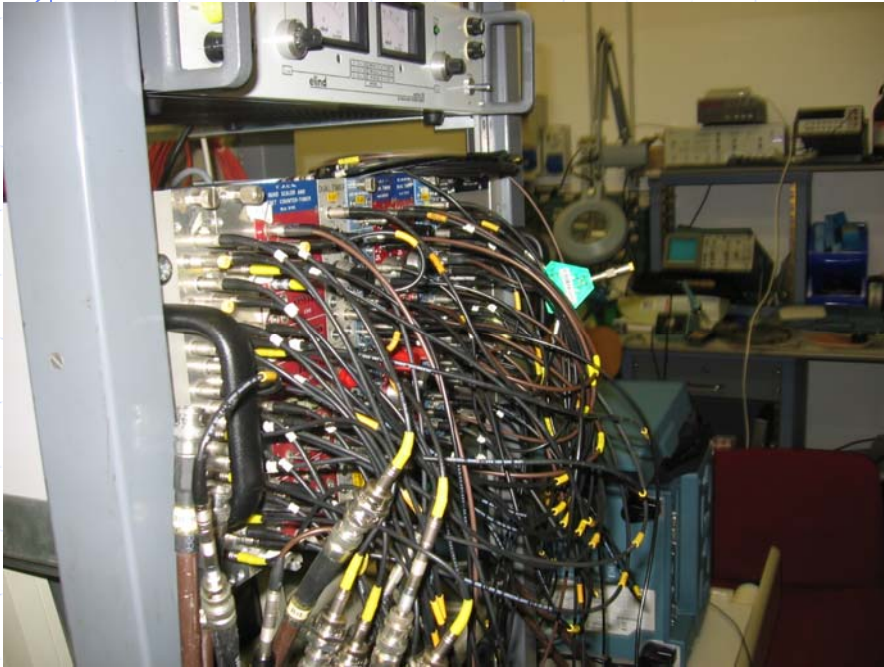
- ◆ **a tight INFN funding** will be available beginning of March (if approved in INFN director board of end February)
- ◆ **We need to minimize installation and transport costs** (we have only one transport to RAL paid for all TOFEs + KL + support of TOF2+KL+SW(?) + temporary support for TOF1 and reduced travel budget)

# Work in progress

## ◆ TOF0,1

1. Counter assembly finished (light-guide production, glueing, wrapping, preliminary tests)
2. TOF0 counters under test with cosmics. Problem: **PMTs are lacking ... some are missing, some are broken, some are bad.** Out of 70 nominal PMTs it is a problem to get 40 of good quality for TOF0 ... **It seems that the active dividers are quite bad...**
3. Then test of laser injection, cables, ...
4. TOF1 will be tested afterwards, but new PMTs ordered will begin to arrive only at end of March ...
5. Support platform for TOF1 under construction

# Cosmics testbench



With help from J.S.



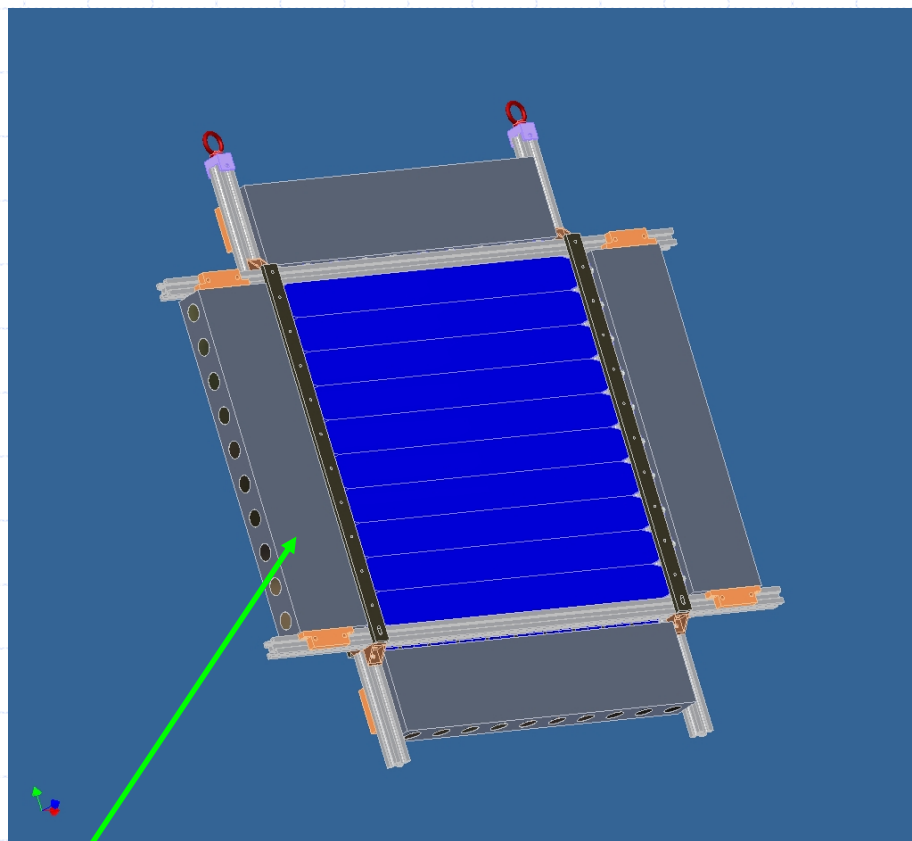
## TOF0;1 assembly



## TOF2:

1. **Design with local shielding** (see later): iteration with Rome3 for support platform for locally shielded TOF2+KL+ SW(?)
2. **Orders placed**: scintillators, PMTs, lightguides ... but delivery is not so prompt (eg PMTs delivery from end March to June)
3. **We will start assembly** of TOF2 barrettes probably mid April-May

# Local shielding of TOF2



~ 30 Kg

Assuming local PMT shield will work for TOF2

- CAD design for TOF2 frame+local bar PMT shielding+ support
- structure is not much more complicate and expensive than not shielded TOF2

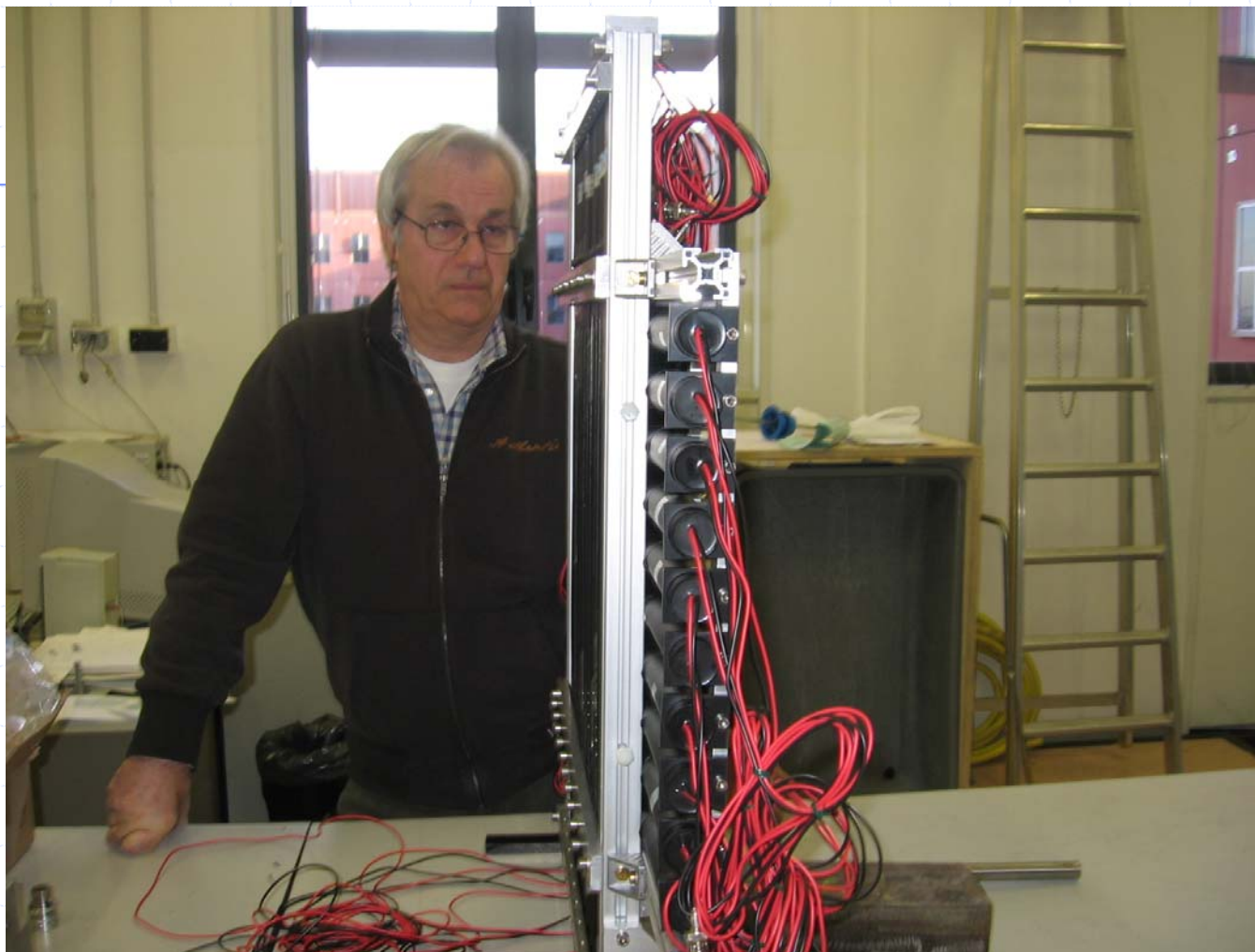


# KL/TOF2 interface

- ◆ TOF2, KL and eventually SW will be mounted on a common support, provided by RM3
- ◆ it is not an easy task to interface TOF2 magnetic shielding to KL one: it is in the hands of Rome3+MIB mechanics workshop (A. Iacifano/R. Mazza)
- ◆ but clearly practical solutions must be sought (mechanics simplicity, weight, ...): the “best” is in only in God’s hands

# Conclusions

- ◆ **work is progressing**, but problems are showing up continuously (the last is the bad PMTs behaviour ...)
- ◆ **delivery to RAL** will be clearly in a shutdown period, when most of the first bunch items will be ready and fully debugged (TOF0, TOF1, KL, support for TOF2+KL, temp. support for TOF1).
- ◆ **any help and support** will be clearly useful



To be late and to be right is not so bad (Σ.Χ.Χ. Τιμυ)