FEV7/DIF testbench at LLR

adapter

- SWEAT-MB (Si-W Ecal AdapTer-MainBoard)
  - Main board
  - Mezzanine for Power, tx/rx buffers, connector development
  - Expected end of June (no mezzanines)
  - Also for Cosmic test bench
- SWEAT-BUFFER (TX/RX mezzanine)
  - Ordered last week together with SWEAT-MB

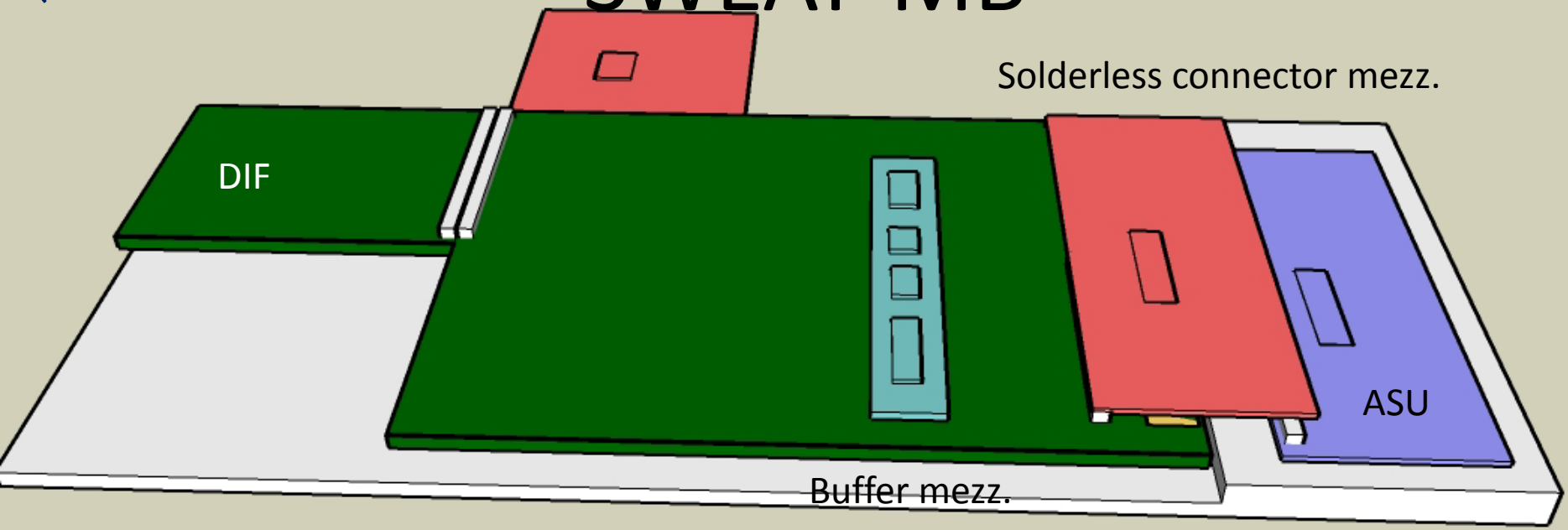
To be received tomorrow

Cabled at LAL (thanks for supporting)

Who? Antoine + Rémi

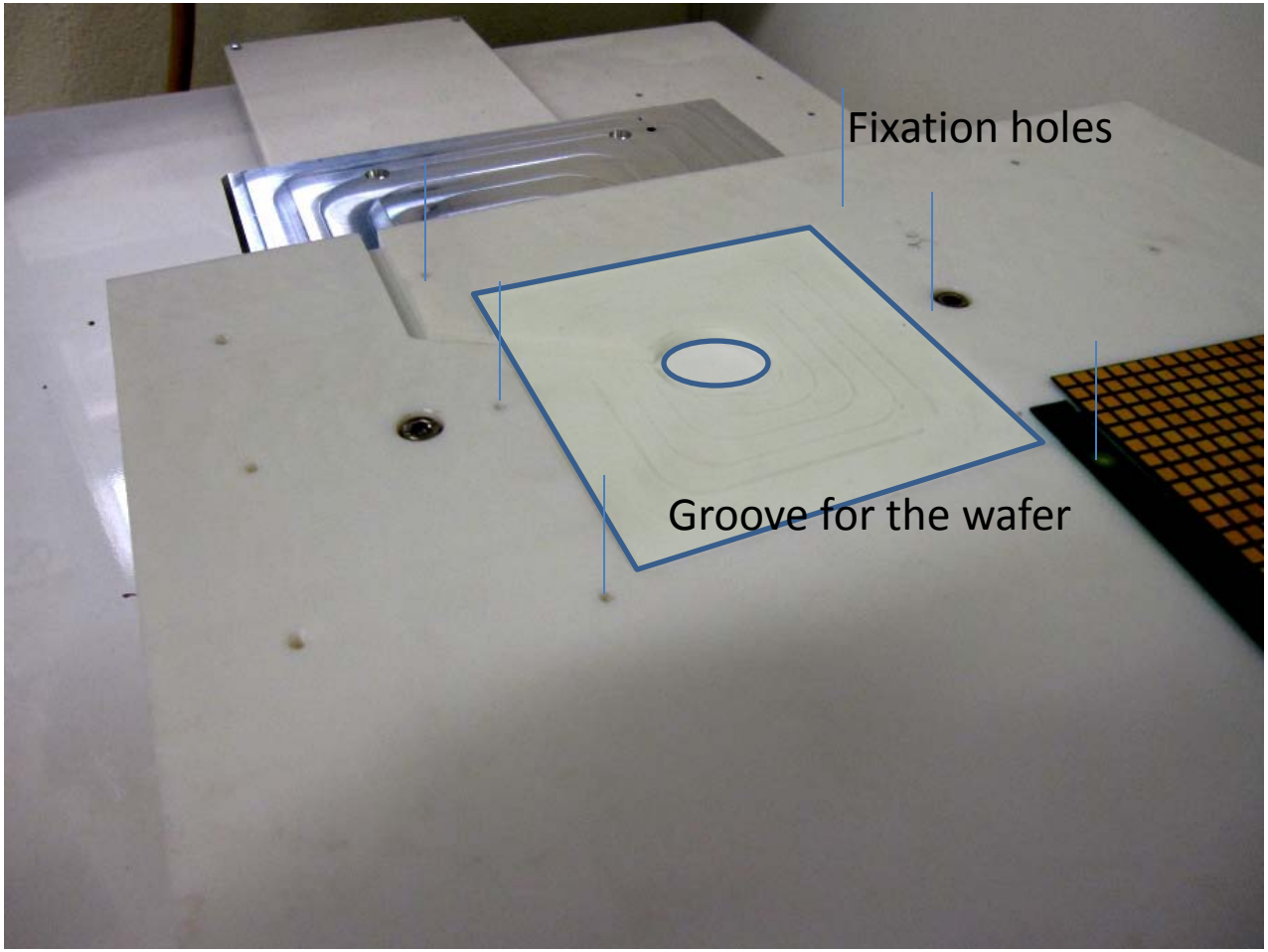
Not to scale

SWEAT-MB



Can be used as a support
to glue the wafer
Scalable in order to build a
slab (same edge as FEV7)

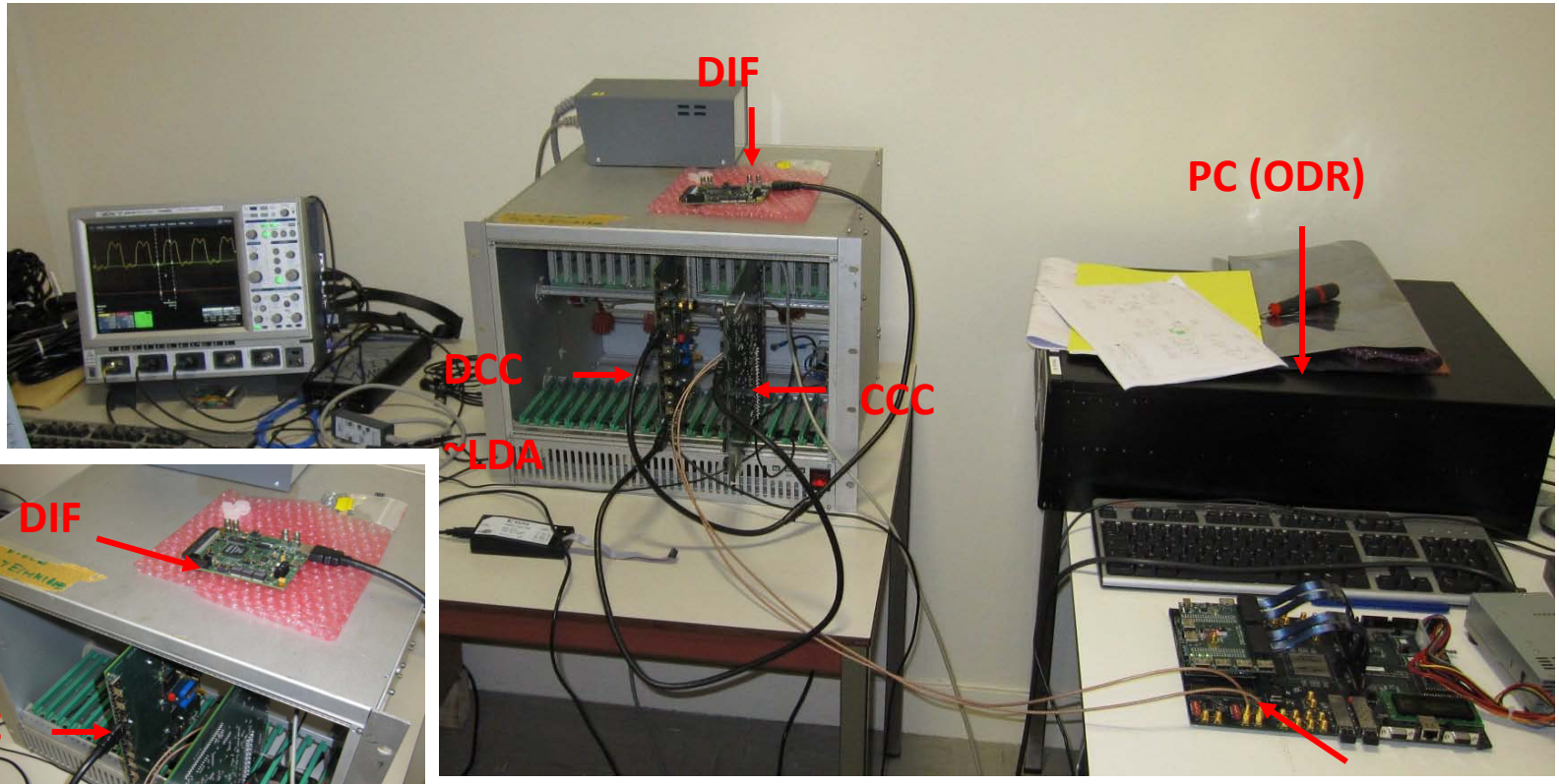
Support



DIF & FEV

- We have now 2 ECAL DIFs (old prototype)
- Loaded with a test firmware for USB
- Firmware in good progress
  - Slow control
  - Read-out
  - No other functions for the 1st version
- We have 1 FEV7_CIP (1 chip)
- Solder-less connector under investigation
  - Nothing available yet

Test Bench



DAQ & DCC

- Developments for DCC lead us to understand well the serial link
- Data transfer between a virtual LDA and a virtual DIF is enabled
  - Firmware into the DCC fpga — Leimeng
  - Pattern generation from USB
  - Upscale to 9 link in simulation (DCC) — Franck

Plans

- Glue a wafer on FEV7_CIP
- Connect to the adapter board once available
- Plug the DIF
- Start playing…
  - Fast/BT commands from USB or LDA
  - Clock from CCC
  - Generate few signals…
- Takes time as we will try to enable the whole DAQ chain
  - Functionalities added “on the go”

This week

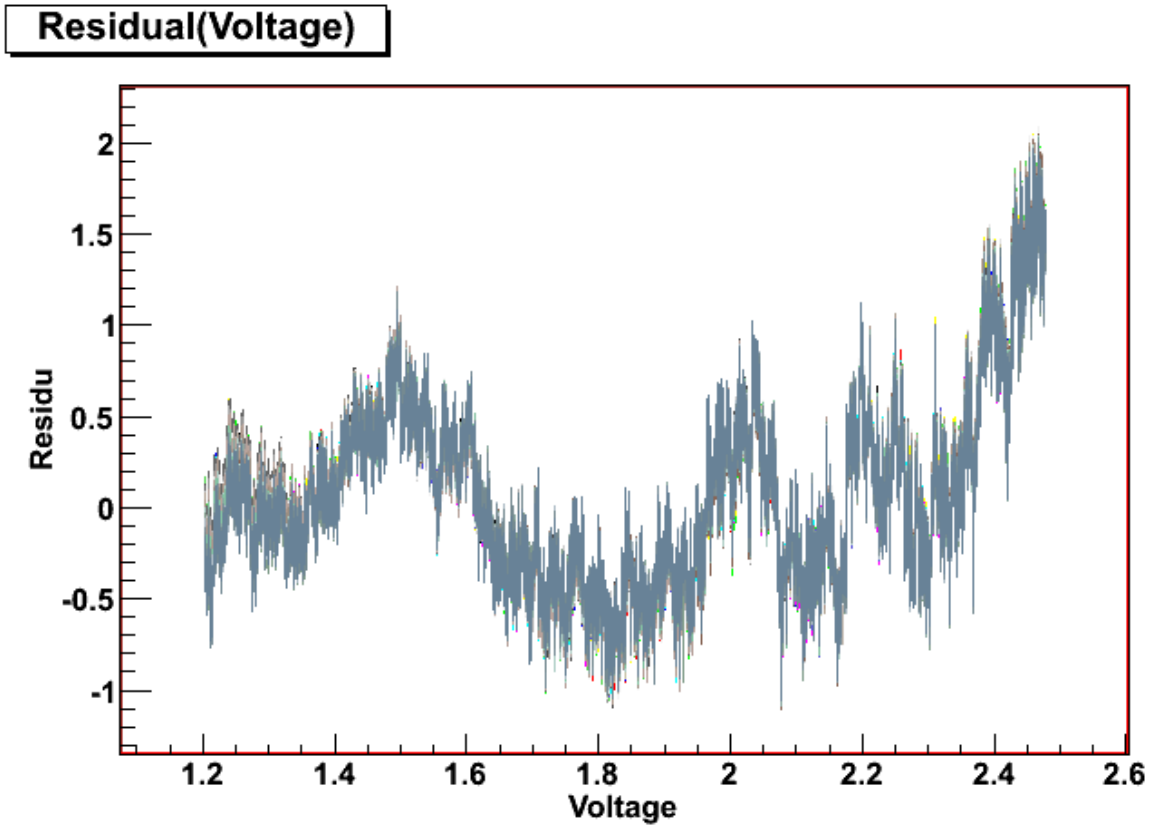
Uncertainty!
This week or in one month…

Prior the CALICE week at LYON

SPIROC2: ADC

- On a caractérisé l'ADC
- Comportement gaussien pour les deux chips
  - Tous les channels et tous les voltages.
  - Pas de ''tails''.
- Les deux chips sont bien linéaires entre 1.2V et 2.4V.
  - Résidus compris entre -1 et 2.
- Pour les channels la réponse relative est constante avec le voltage, mais différentes pour les deux chips.
- Certains channels ont des problèmes dans l'acquisition des données.

Linéarité - Chip n°2



- Résidu compris entre -1 et 2 ADC
- Augmentation du résidu à haut voltage