# Overview of the current test campaign

## 14.-16. April 2015, Munich

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# Overview of the current test campaign

**Participants:**

- KEK: Martin Ritter
- MPP: Edi Prinker, Felix Müller, Hans-Günther Moser
- Uni Bonn: Carlos Marinas, Florian Lütticke, Leonard Germic
- Uni Göttingen: Benjamin Schwenker, Philipp Wieduwilt
- TUM: Dima Levit
- HLL: Christian Koffmane

**Topics:**

- EMCM: many open measurements (like ADC curves at different parameters, 2bit DAC, small PXD6 matrix) but software issues have been addressed first
    - Common repository for the software installation
    - Merge code form Bonn and Munich (frame receiver, ADC curves)

- Hybrid 5 Setup
    - Install PC from Göttingen
    - Test Hybrid5 Board and pre-production Power Supply (arrived today)

- Hybrid 4 Setup
    - Apply analog Common Mode Correction (in DCDPP)

- Lots of discussion: e.g. operation parameter for the PXD9 pilot modules

# EMCM: many open measurements

- Update on measurements of the last weeks will be given by Felix

- Open topics which have to be addressed next:
    - Migration to new DHEv3
    - 2-bit DAC for pedestal correction
        - Delay settings for the communication DHPT->DCDPP - equally critical as for the DCDB->DHPT data link?
    - ADC curves @ all four gain settings and sweep of DCDPP parameter VFBPBias, VPSource, VPSource2
    - Channel to channel spread of VSubIn
    - Channel to channel spread of IPDAC
    - Run small PXD6 matrix

- During the last days we focused on software improvements:
    - Faster upload of pedestal data (necessary for ADC transfer curves)
    - Much faster data visualization (of the ADC transfer curves – from zero-suppressed binary files)

# Hybrid 4 Setup / Hybrid 5 Setup

- Hybrid 4:
    - We had a glimpse on the analog CMC (some preliminary plots we be shown later)
    - We have to discuss how to test the analog CMC (how to apply a dynamic change of the DCDB internal current source or generate a common mode signal with the PXD6 matrix, e.g. by using a large laser spot)

- Hybrid 5:
    - One DHPT/DCDPP wirebond adapter was assembled onto the PCB
    - First commissioning using PC from Göttingen and bench power supply was done
        - DHPT and DCDPP JTAG configuration: ok
        - DHPT link: ok
        - DHPT-DCDPP CMOS clock: ok (diff clock unfortunately not connected on WB)
        - Test with pre-production power supply

# Summary

- Current test campaign does not deliver results for open EMCM topics, but helps to improve the software with respect to speed, stability and synchronization between different test setups (svn, Scientific Linux 6.6)

- Benjamin and Philipp (Uni Göttingen) learned to operate the system and take a running PC and Power Supply back to Göttingen

- We should discuss during the next weeks if we should do another test campaign in May/June

Thanks to all participants for joining the test campaign!