



Universität Hamburg

DER FORSCHUNG | DER LEHRE | DER BILDUNG

Plans following Grindelwald

Tobias Lapsien, Alexey Petrukhin, Jennifer Sibille, Matteo Centis Vignali

- Understand Vcal temperature dependence
 - What is done in CMS (P5)? How does it translate to what we do in the lab?
 - Better understanding of differences between KIT and UHH procedure
 - Investigate differences between our ROCs
- Finish prototype cold block for x-ray box so that we can control temperature
 - See if it is possible to go to -20C?
 - Will need adjustments for final module handle, but will hold old module
 - Easier to do these studies with x-ray tube + fluorescence - much higher rate (otherwise threshold method impractical)

- Does temperature dependence exist on digital ROC?
 - Request dig. ROC + sensor and adapter from Wolfram
 - Big implication on x-ray setups (especially for other sites which are just starting)
- Attract a PhD student for 6 months
 - Set up software for dig ROC at UniHH
 - Testing dig ROC in lab, support DESY test beam activity
 - Proposal already written by Alexey

- CV/IV curves
 - Setup tested yesterday afternoon with dummy wafer
 - So far measurements roughly agree with CiS (different temperature)
 - Will test other wafers in the coming week
- Visual Inspection
 - FINISHED!
 - Collect statistics of defects, give to Tilman
 - For future – is it sufficient to inspect by eye and measure CV/IV curves?
 - Setting up automatic photographing station will require non-negligible investment of manpower and money
 - Do we really gain something?

- Have most of the measurements, drawings needed
- HDI layout might change slightly, but this affects only the HDI vacuum head
 - Other parts can be finalized, built
- However: not yet clear when/how cable is glued to HDI
 - Affects the rest of the process (do we need to handle 1 m of cable?)
 - Idea at Grindelwald to leave cable gluing to the end
 - Affects wire bonding setup
 - Easy problem to solve, but need a discussion and decision before proceeding
 - Phone meeting sometime next week with Silvan to discuss