

VXD-only tracking meeting

- Monday, 14.07.2014, by SeeVogh
- about 20-25 participants (Vienna, DESY, KIT, Giessen, ...)
- 7 presentations
- <https://indico.uni-giessen.de/indico/conferenceDisplay.py?confId=167>
- PRO
 - motivation: **pixel rescue**
e.g. PXD hits from tracks not reaching layer 4,5,6 in SVD, are lost!
(corresponding PXD raw data will never reach EVB)
example: simulation for a decay channel with slow pions from D^{*+}
(David Münchow)
→ effect is large, p_T decreases from 80 MeV to 35 MeV
(PXD+SVD vs. SVD-only)
- important for BMBF applications, due 1.11.2014
(e.g. apply for prototype systems, only chance for next 3 years)

- **CONTRA**
 - combinatorics too high, if PXD hits are not pre-filtered
 - huge project
- **HARDWARE CONCEPTS**
 - ONSEN as event builder,
VXDTF on a new farm,
cluster charge as pre-filter to reduce combinatoris
(Igor, Jakob, Rudi, ...)
 - upgrade of ONSEN/DATCON,
new protocol (pre-matched SVD data or PXD data „on request“),
example z-based ROIs, probably reverse direction PXD \rightarrow SVD
(Michael, Björn, Sören, ...)
- **Conclusion** from this meeting:
M. Heck: cluster rescue \rightarrow will save 95% of slow π^\pm tracks
in the moment, statement cannot be proven neither disproven
 \rightarrow prototype result planned to be shown at PISA meeting
(we may need a „cluster rescue emulator“ in basf2)