OTF Geometries

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on behalf of the NIKA team

To make a long story short

- We started the session with no pointing model on Nov 15
- Nov 18 was mostly a pointing session to feed the pointing model
- Nov 19 we had a first pointing model centered on detector 453 @2mm (no 1mm counterpart) but with misunderstanding on the meaning of the measured offsets
- Nov 20, we had a second and definitive pointing model for the rest of the run, centered on detectors 414 @2mm and 8 @1mm.
- It happened that before performing an OTF Geometry scan we did not do a "cross" to reduce pointing uncertainty as much as possible

- The next slides present a collection and short analysis of the reliable otf_geometry scans, under good or at least reliable weather conditions

Nov 15th to Nov 19th

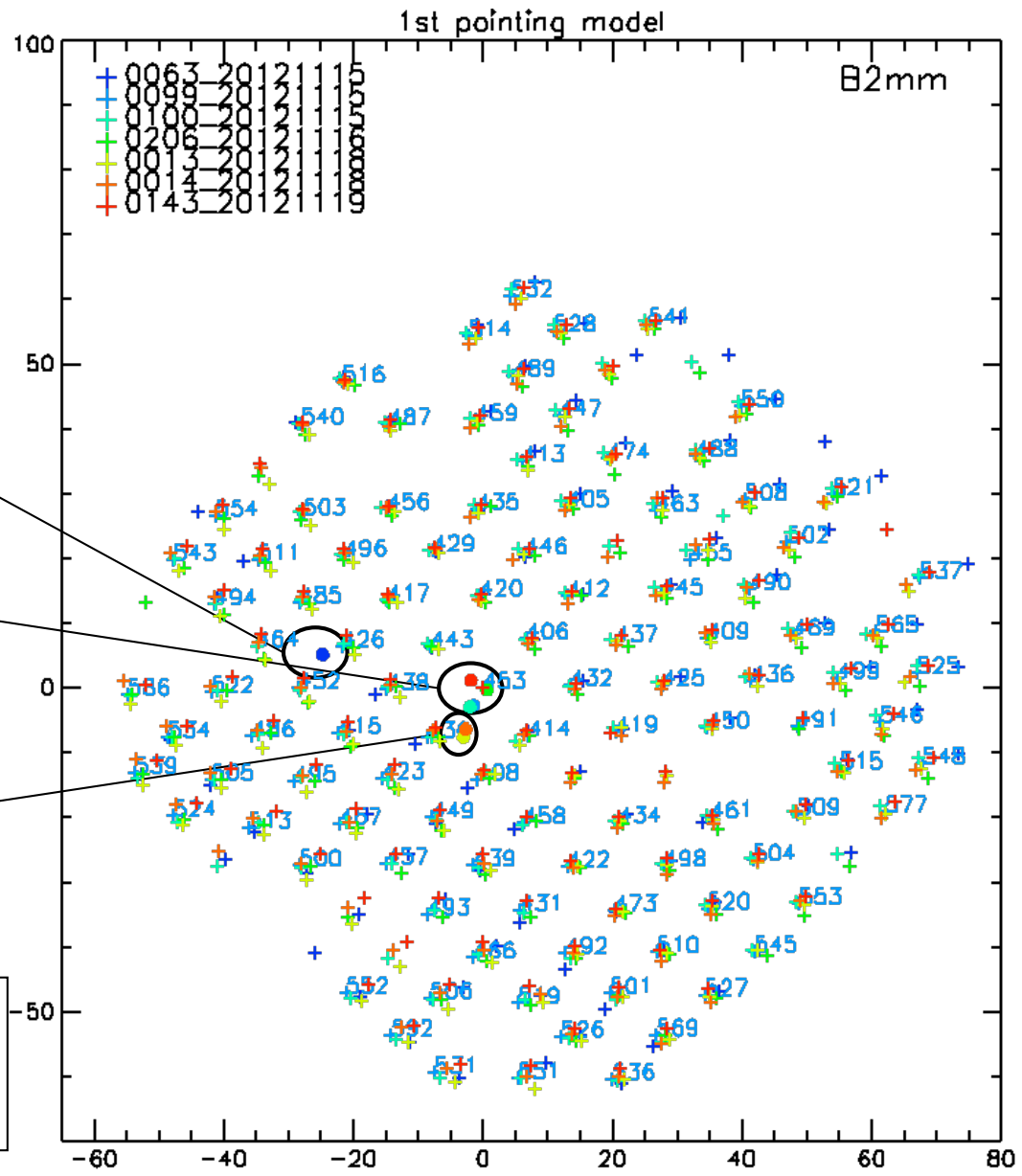
- Beam centroids positions (+)
- Dots are the derived positions of the elevation axis (Nasmyth to Az,el rotation center)

Nov 15th : no pointing model available yet + not optimal focus

Pointing model available and/ or cross prior to the scan to correct pointing error

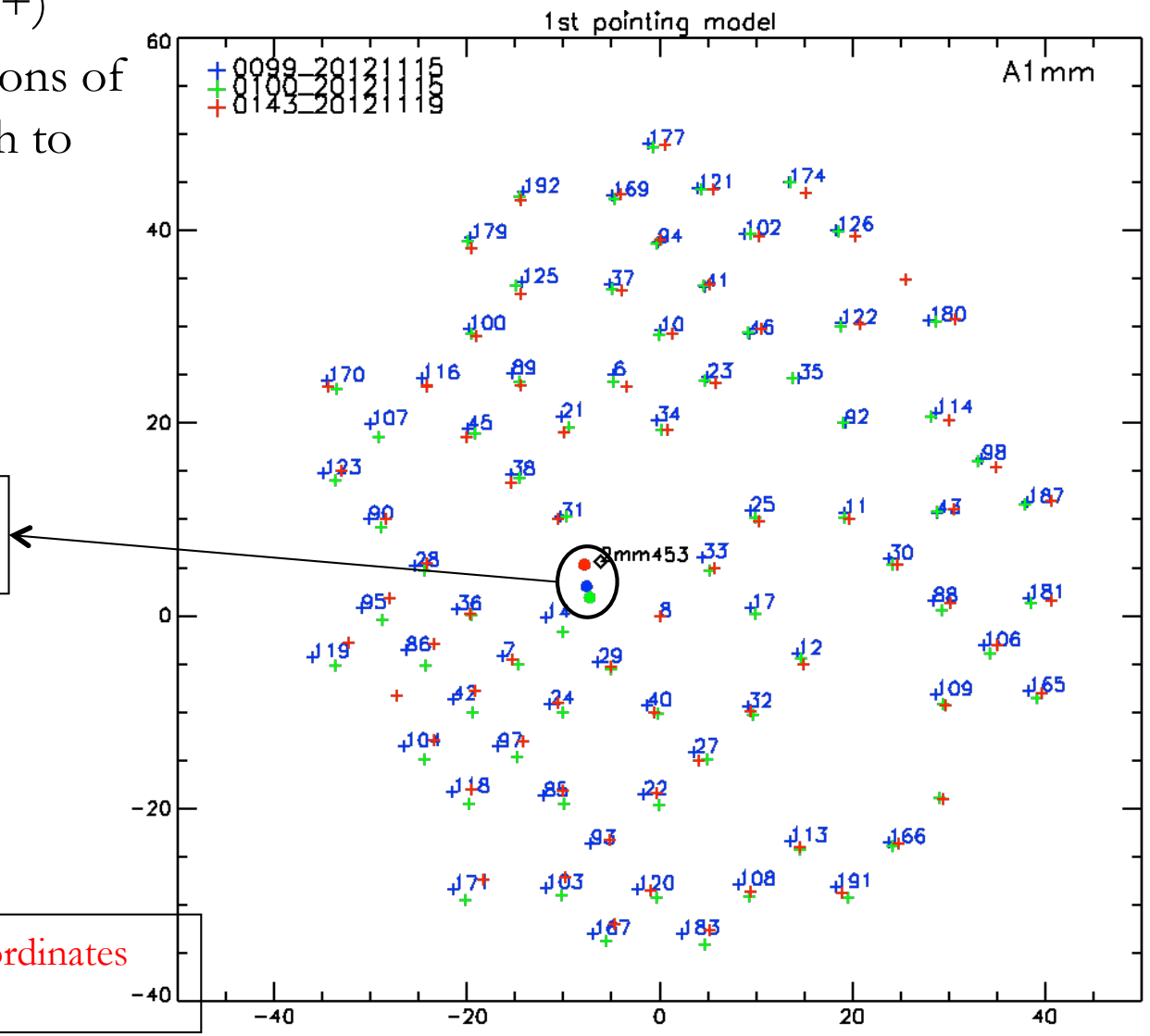
Nov 18th : pointing model available but no cross prior to the scan to correct pointing error

Discrepancies / consistencies between elevation axis determinations are understood



Nov 15th to Nov 19th

- Beam centroids positions (+)
- Dots are the derived positions of the elevation axis (Nasmyth to Az,el rotation center)

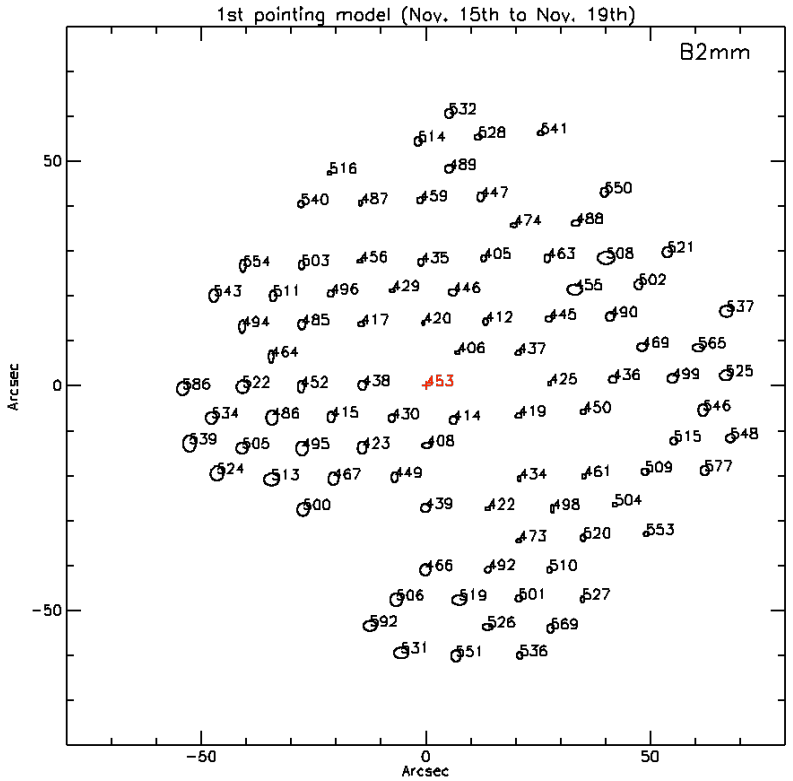


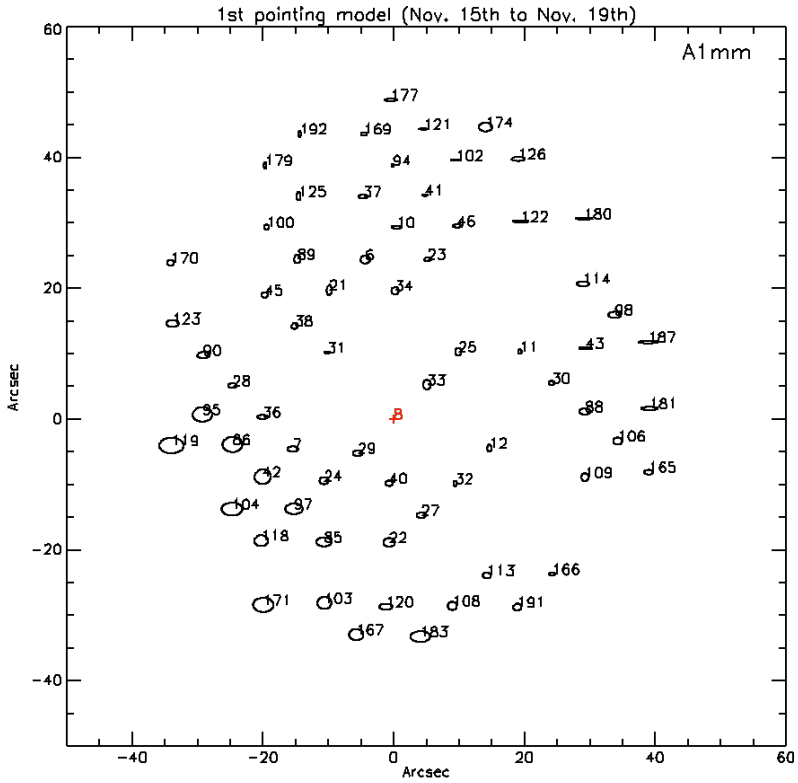
Rotation center around ref. det 453 at 2mm

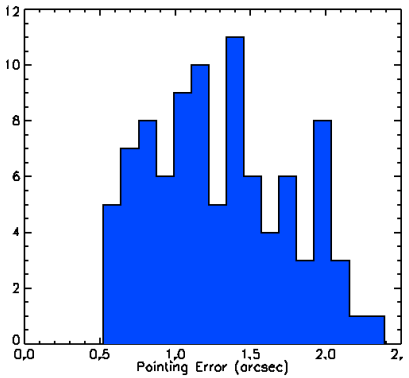
Consistent with Nasmyth coordinates derived on 2mm

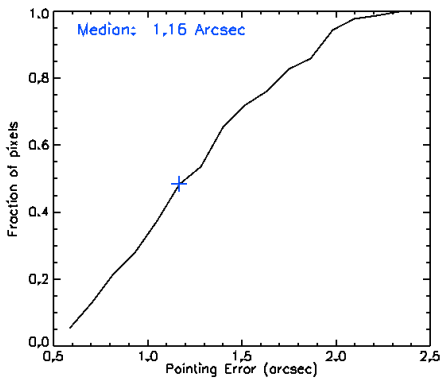
Nov 15th to Nov 19th

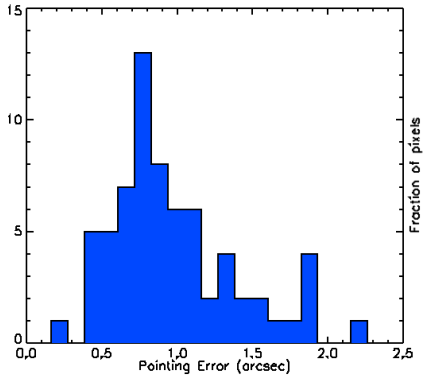
- Average geometries (1σ contours)

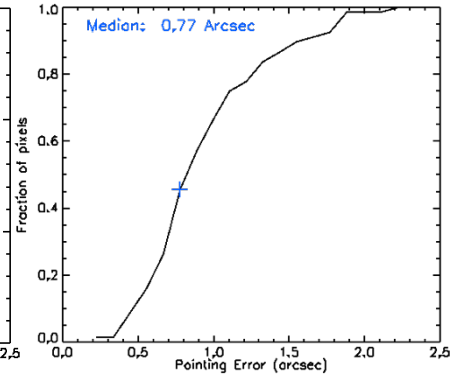






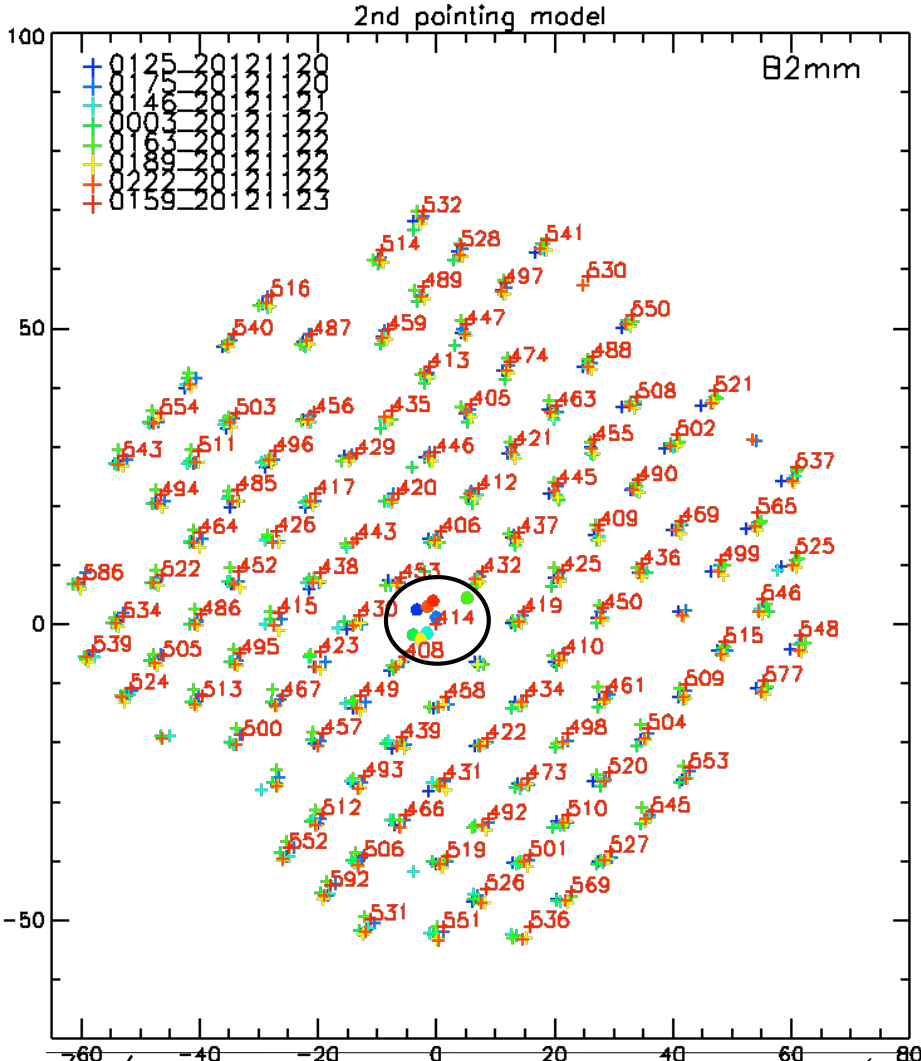


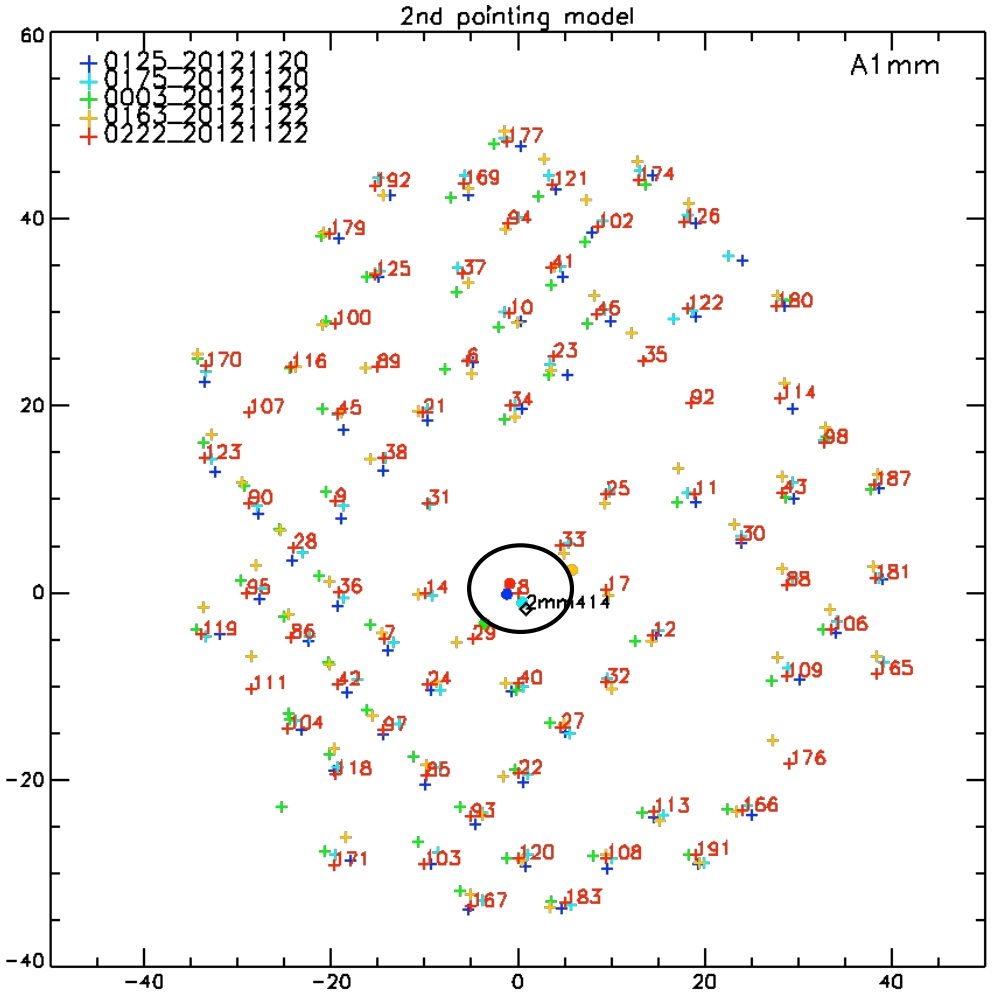




Nov 20th to Nov 26th

- 2nd pointing model:
  - The elevation axis is found around the reference pixel
  - Consistency between 2mm and 1mm derived pointing axis





- Average geometries (1σ contours)