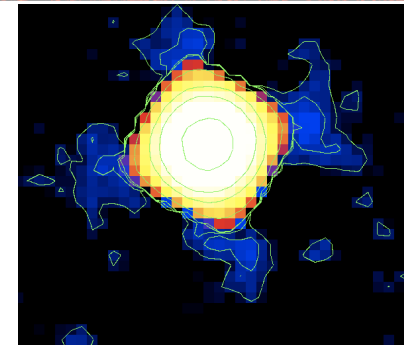
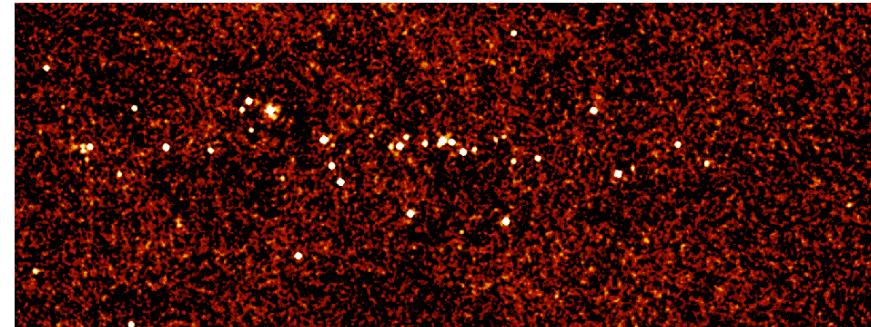
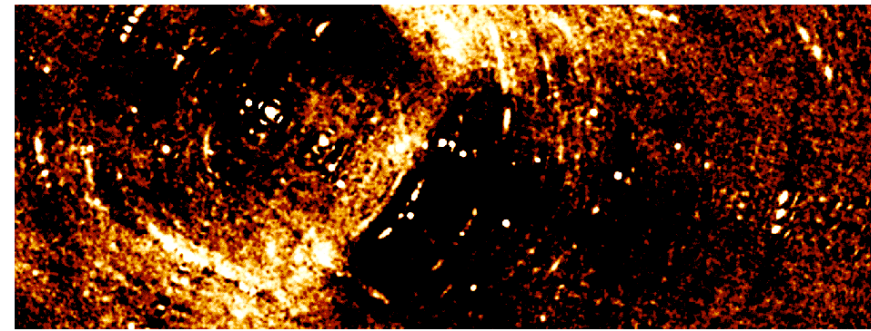
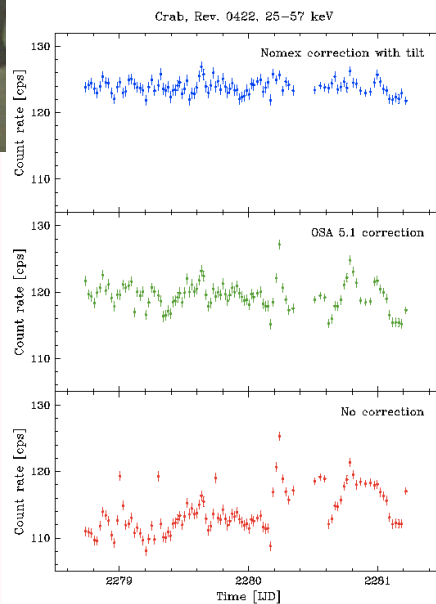
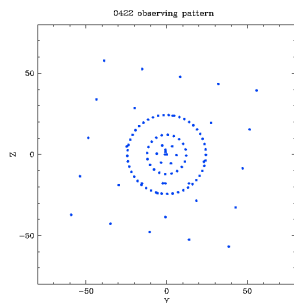


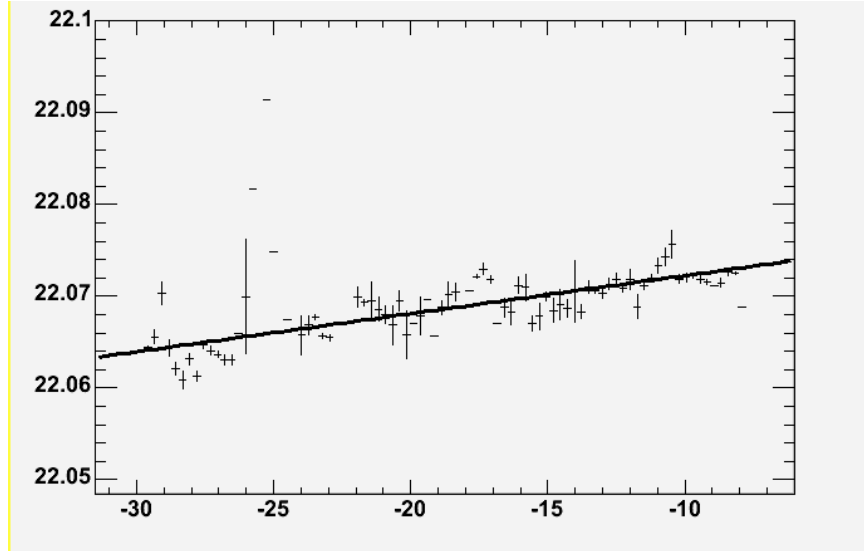
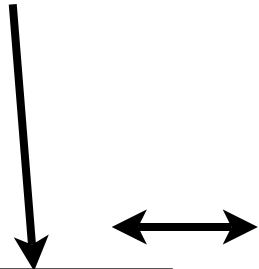
# IBIS/ISGRI geometric calibration

- Detector and mask alignment vs star tracker + thermal deformations  
Current systematics: 14"
- Nomex geometrical model. Current systematics on flux measurement: 1-2%
- Image defects related to insufficient instrument modeling. Systematic error on the PSF: 1% limits usable exposure to 2Msec in the vicinity of bright sources



# Thermal effect on misalignment

TCS\_TH\_IBIS\_MASK



Data looked at:

- Crab all data and specific revolutions
- Cyg X-1

Deviations 20-30 arcsec

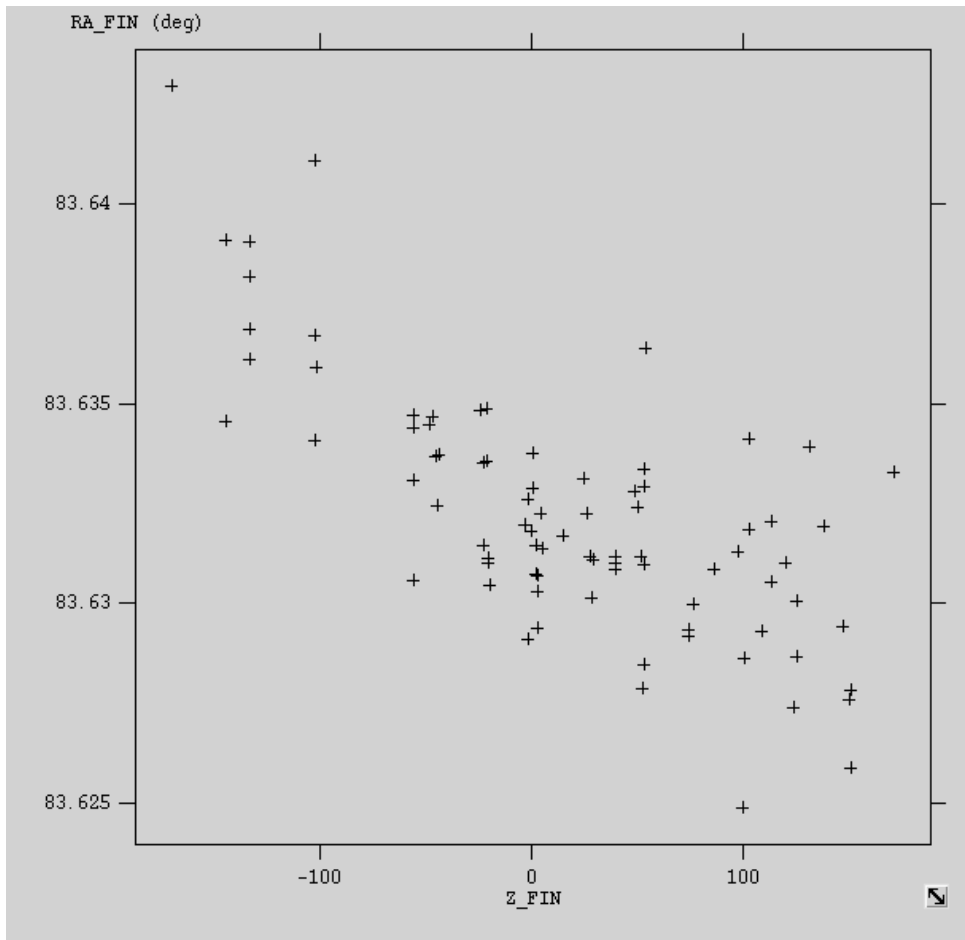
→ Rotation around Z axis

→  $\arcsin ( 1.08E-5 - 2.57E-6 * T - 1.87E-7 * T * T )$

$T = TCS\_TH\_IBIS\_MASK$

Typical uncertainty: 15 arcsec with short exposure

# There are probably other effects at that level of accuracy



A set of Crab observations with longer exposure (to obtain 5 arcsec position) could be useful to improve our understanding