

OMC Calibration and Operations status

Albert Domingo

INTEGRAL User's Group meeting

ESOC, June 11-12, 2019

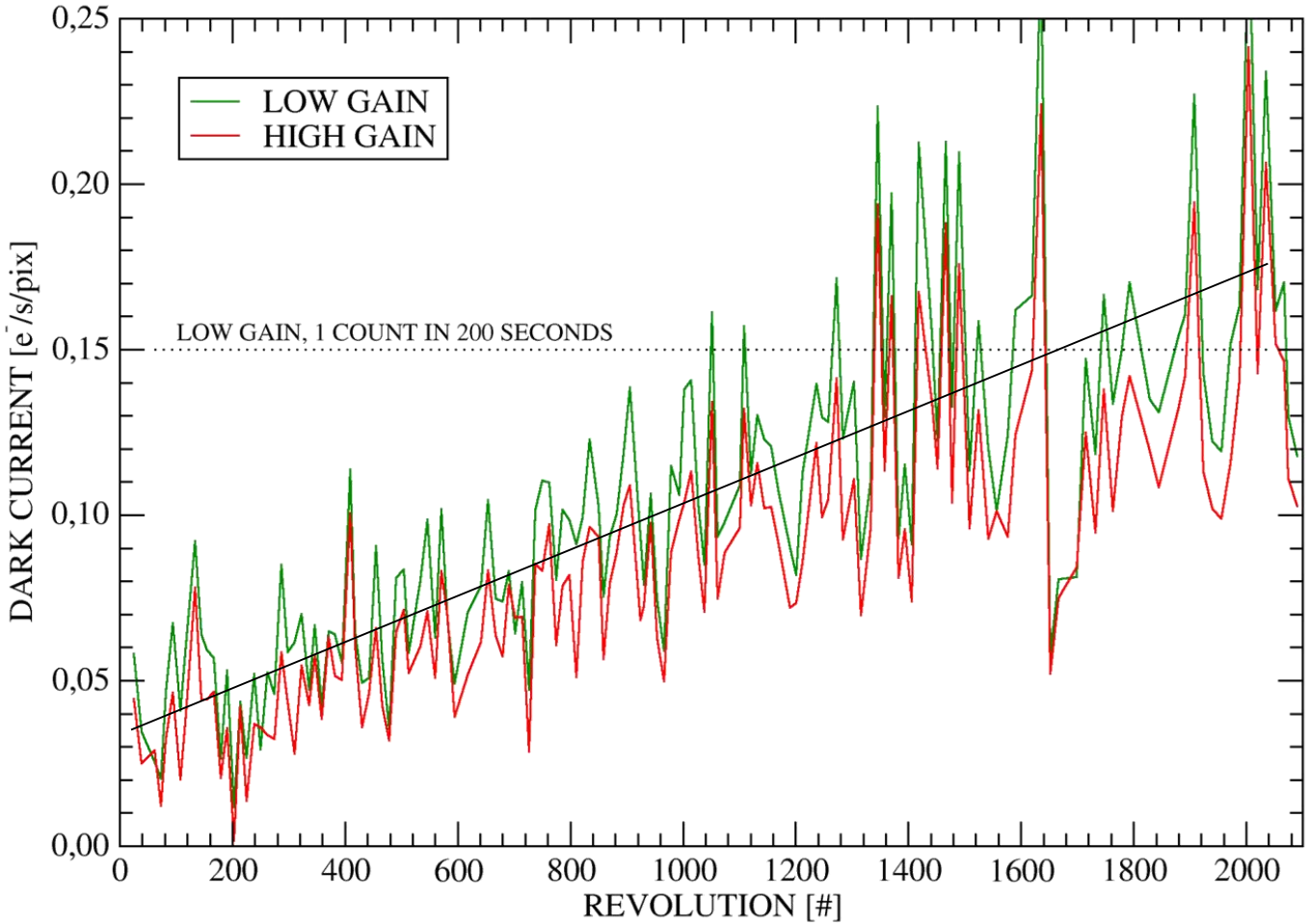
OMC status: summary

- **Nothing new since last IUG in November**
- No anomalies
- System in good health
 - CCD surviving well, though with some ageing effects
 - Sensitivity stable
- New Flat Field calibration strategy allows to improve the photometric calibration.

CCD status

DARK CURRENT

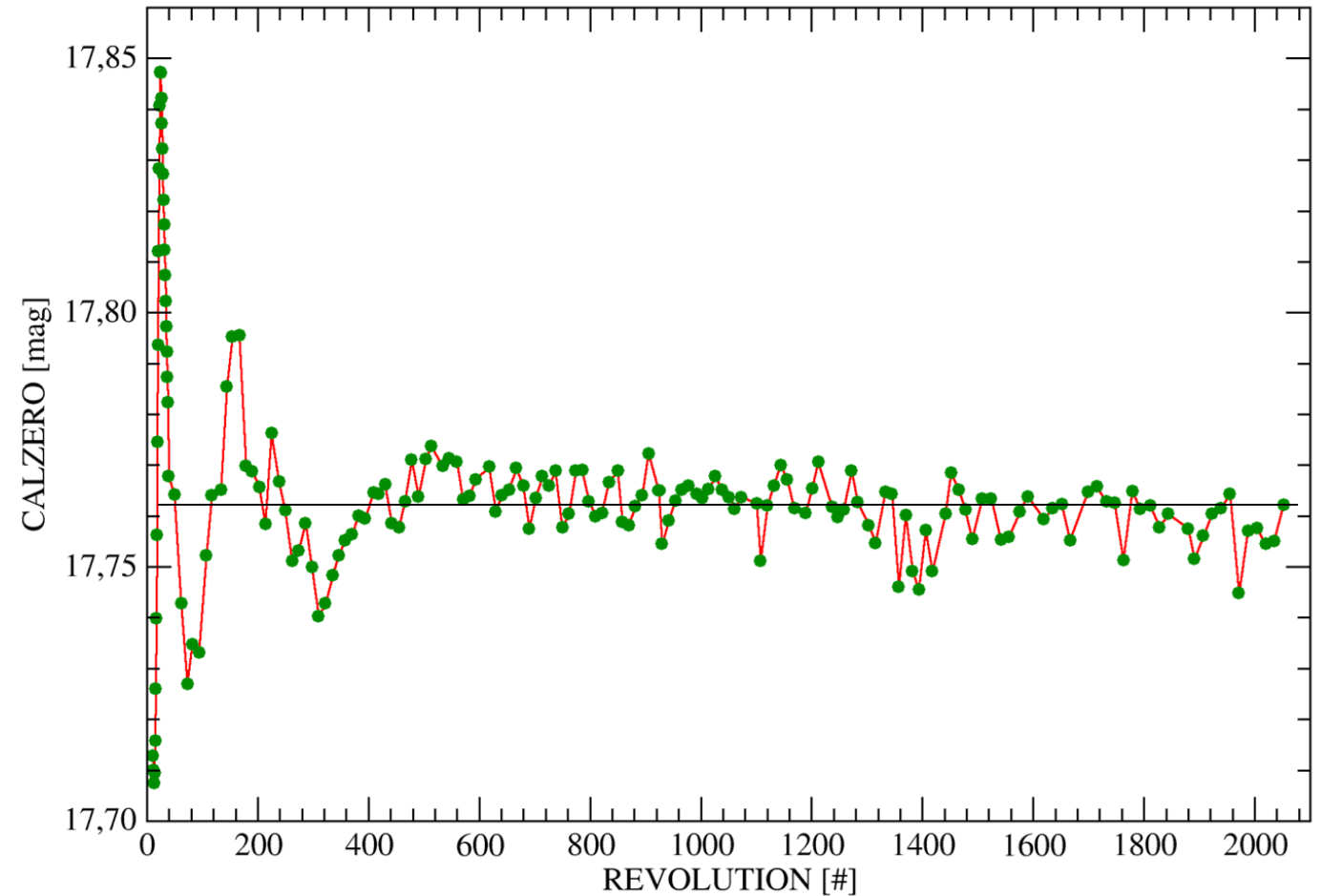
- The dark current increases slowly, no correction yet needed
 - But correction procedure already in place.
- No temperature correction done on the plot.



OMC photometric calibration

CALIBRATION ZERO POINT

- The zero point of the calibration (a measure of the overall sensitivity) is very stable, but with a small trend to decrease.
 - The darkening of the lenses is still not significant, but may be increasing very slowly

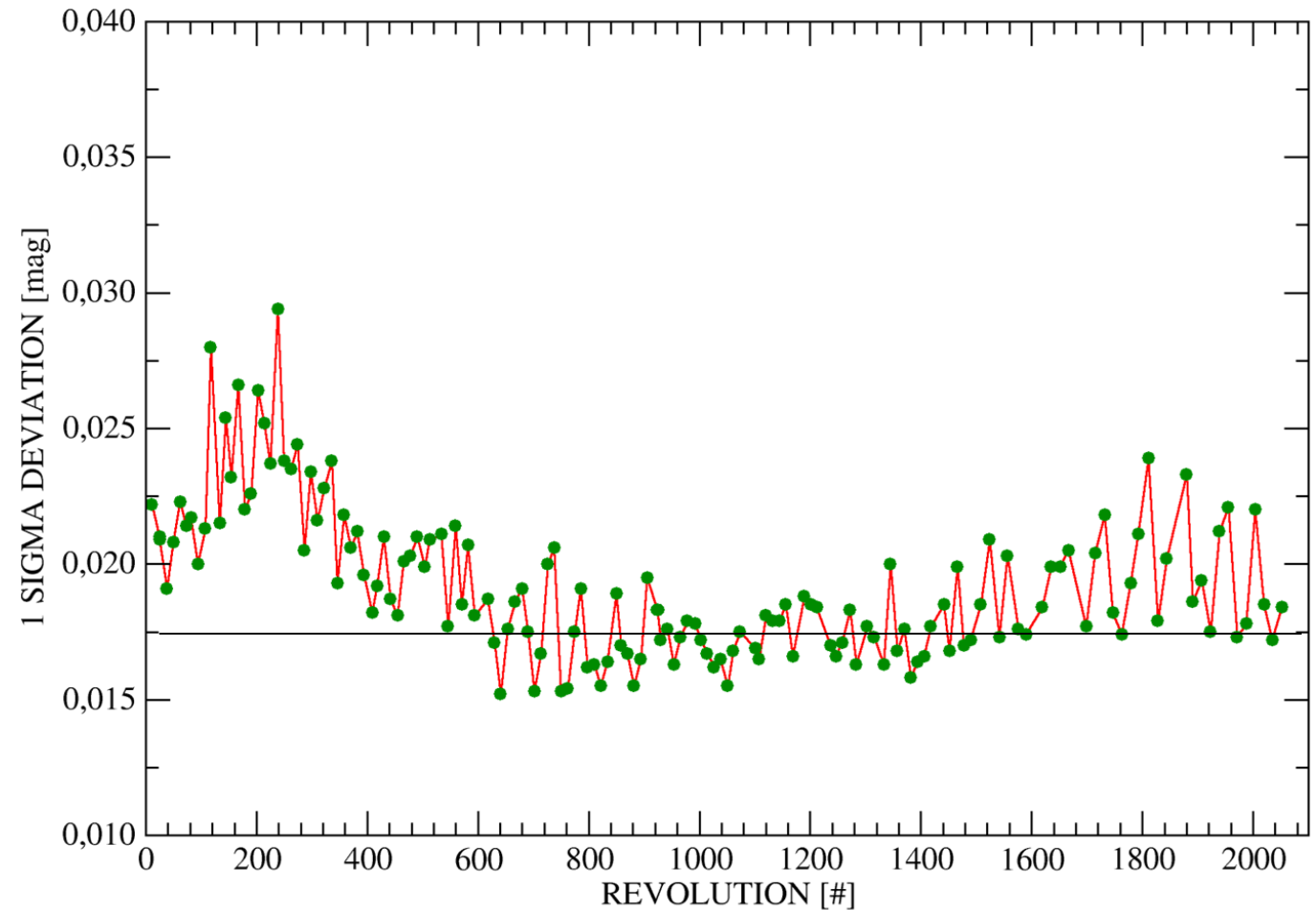


OMC photometric calibration

- The accuracy of the calibration remains stable, with a slow trend to worsen
 - Since the new calibration strategy is in place, the trend is to improve slightly.

PHOTOMETRIC STARS STANDARD DEVIATION

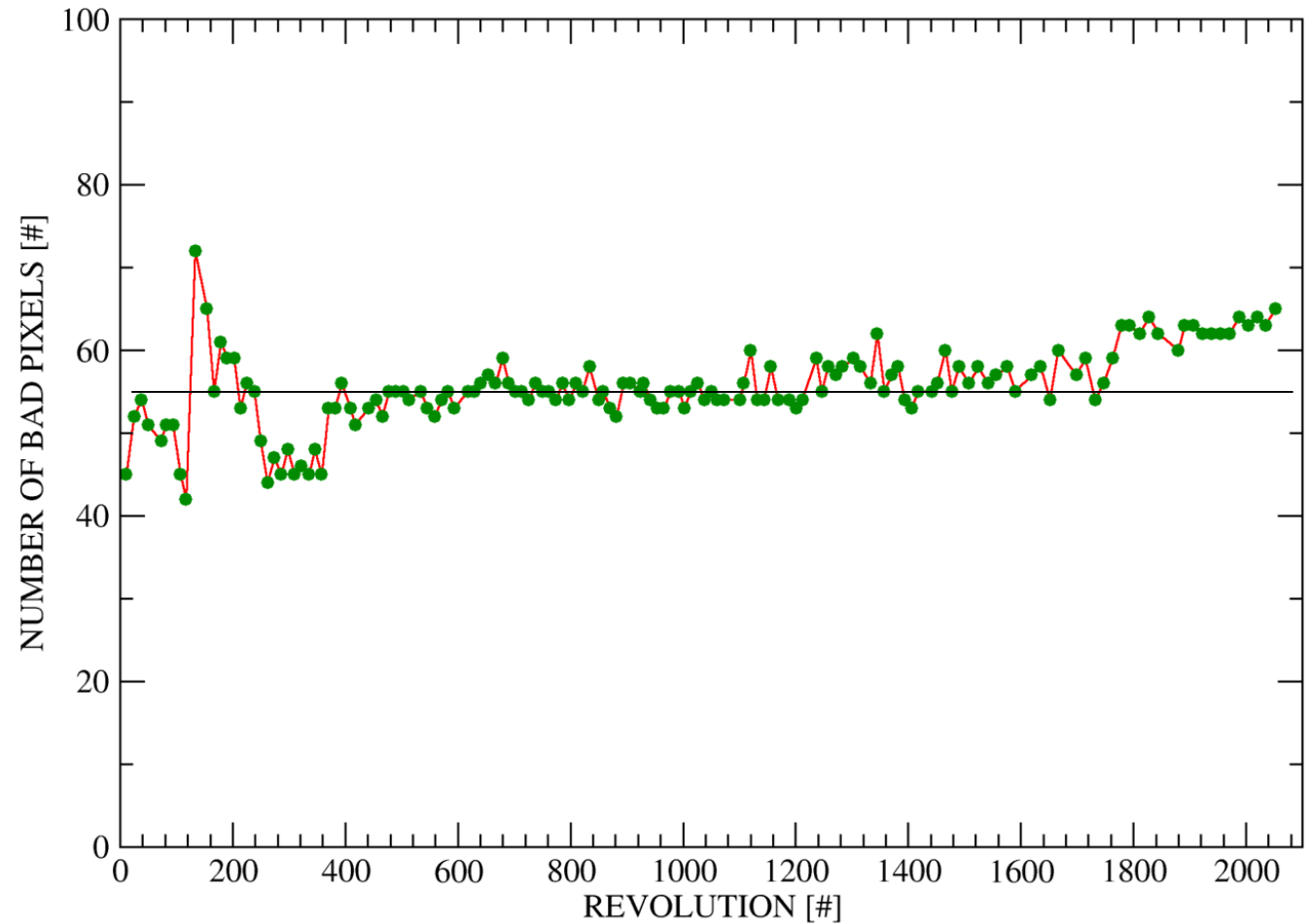
APERTURE 3x3 PIXELS



OMC photometric calibration

BAD PIXELS

- The number of bad pixels (loss of sensitivity) increases very slowly.



- Optics + CCD + thermal control hardware performing excellently after more than 16 years of operation.
 - No CCD columns lost
 - CCD temperature range within predictions (-85 C to -70 C)
 - Optics still clear
 - Effect of radiation still moderate

OMC operations: future support

- OMC operations continue to be funded by the Spanish agency.
- The compromise is to fund at least up to $T_{\text{end}} + \sim 2$ years, to guarantee the final processing and archival of data.