CENTRO DE ASTROBIOLOGÍA
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CSIC INTA

OMC Status

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INTEGRAL Users Group Meeting

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OMC status and operations

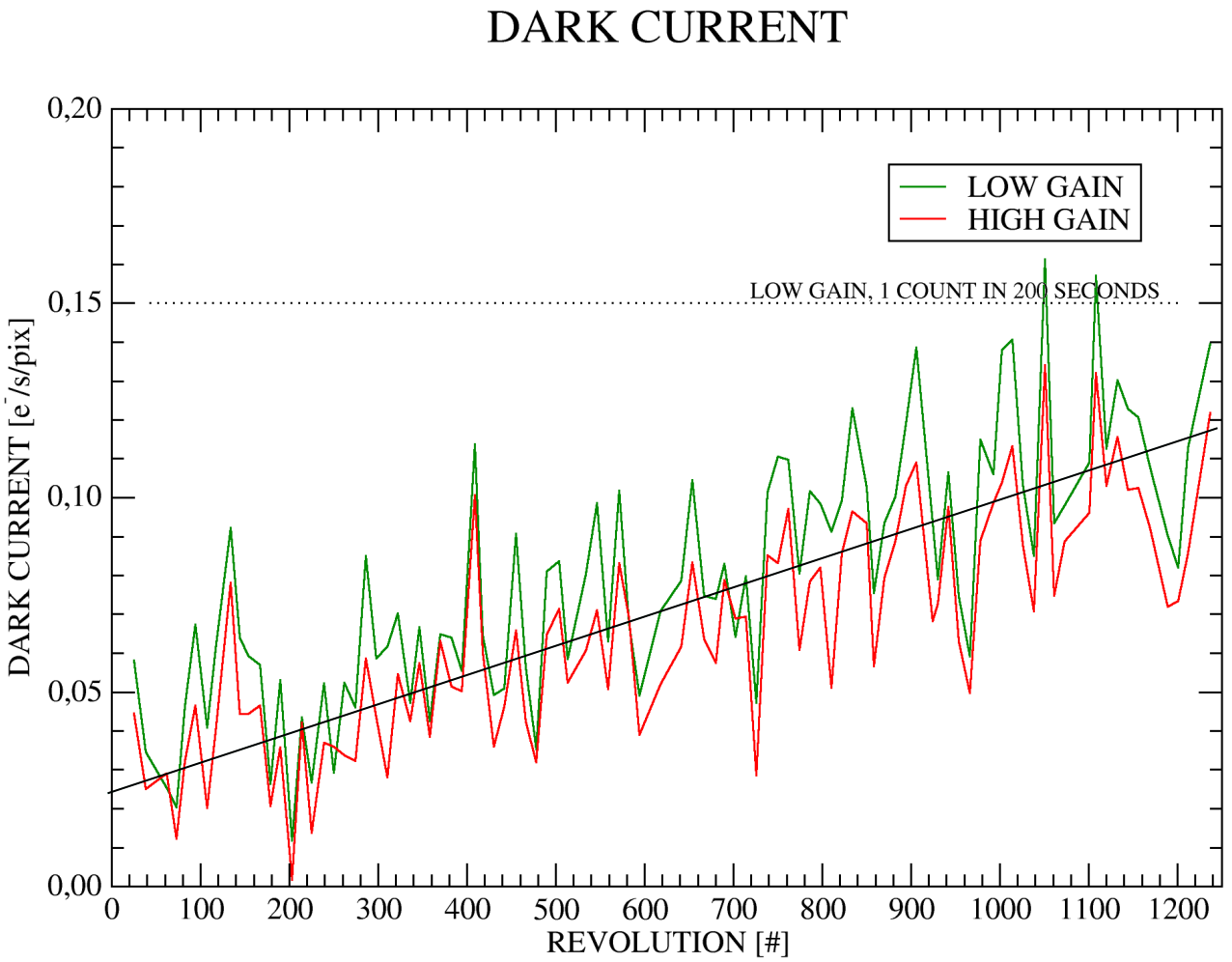
- OMC Status
  - CCD surviving well, but dark current and hot pixels increasing with time
  - Flatfield stabilized
  - Sensitivity stable
- Operational anomalies
  - Last Christmas, the OMC cover power line was autonomously switched on. A general reset restored the normal status, but the failure is under investigation
    - TC failure?
    - SEU?
    - HW problem?
  - Otherwise, everything continues OK.

OMC status and operations

- Effect of open loop slews
  - The impact seems to be acceptable
    - max. OMX pixel shift ~4 (up to 7-8 during Galactic scans), manageable by the internal centering algorithm.
  - Effect of rotation worsens slightly the astrometric accuracy.
  - The OMC processing SW is being updated to recover the full astrometric accuracy.

CCD status

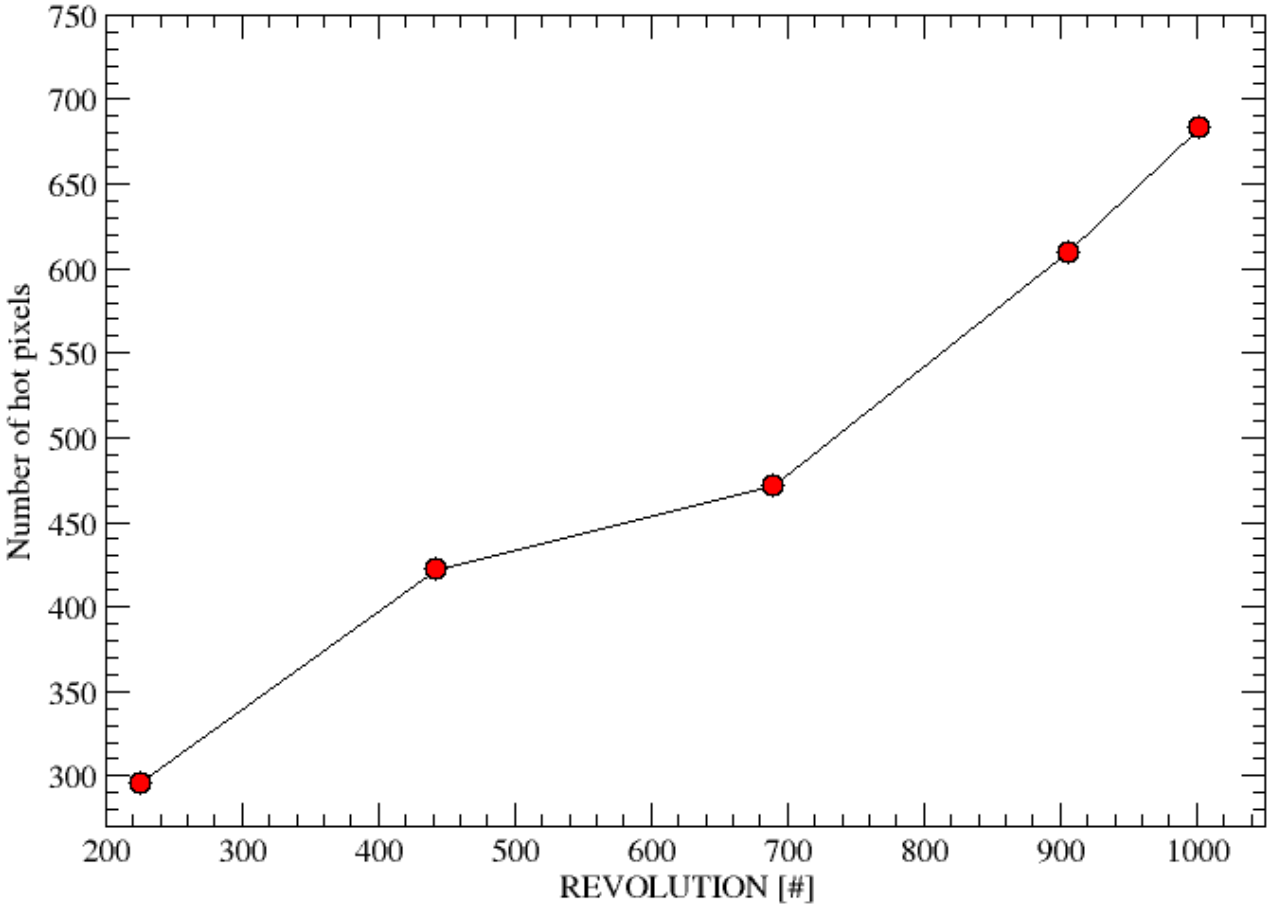
- The dark current increases slowly, but remains still within acceptable limits.
  - Correction might be needed in the near future
- No temperature correction done on the plot.



CCD status

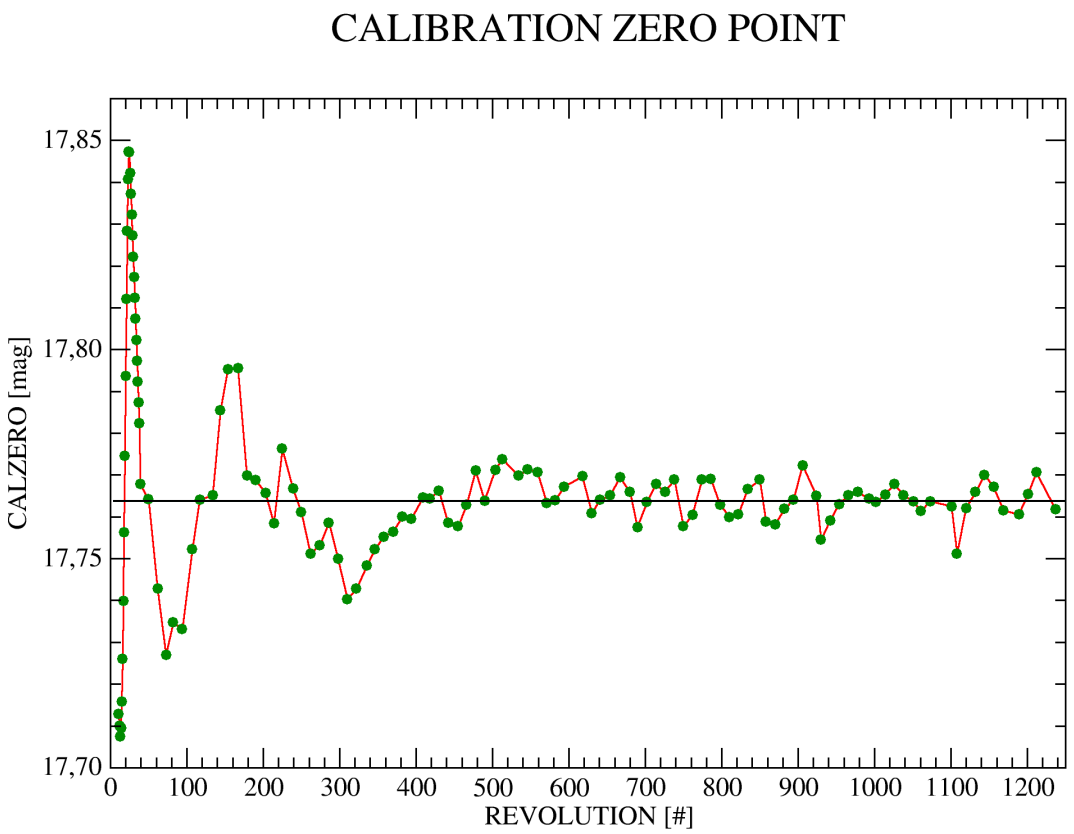
- The number of hot pixels increases steadily.

→ *the number remains sufficiently low.*



OMC photometric calibration

- The zero point of the calibration (a measure of the overall sensitivity) has become very stable.
  - The lenses are not getting darker with radiation.
  - The overall transparency of the CCD coating remains invariable.



Earth Observation

- We are obtaining images from scattered light from the Earth.
- They will allow to derive a final Flatfield matrix. This will improve our calibration at small detector scales.
- This will be useful for the final reprocessing of the data.

OMC Variable Objects Catalogue

- The first version of the catalogue has been already published
  - Photometric lightcurves for 5300 variable objects.
  - Periods and timing information derived for 1400 objects.
  - Lightcurves (original+folded) available on the Web and at CDS.

OMC Variable Objects Catalogue

The first INTEGRAL-OMC catalogue of optically variable sources

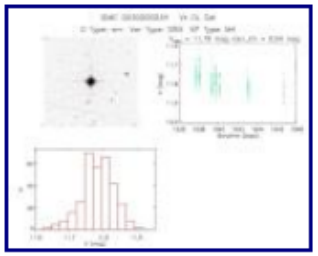
Paper with full description.

ASCII table with the complete catalogue.

ZIP file including all the charts.

Each set displays 200 charts per window. The last option "All in one" loads the complete catalogue (5263 charts) in the same window.

[Chart set 1] [Chart set 2] [Chart set 3] [Chart set 4] [Chart set 5] [Chart set 6] [Chart set 7] [Chart set 8]
[Chart set 9] [Chart set 10] [Chart set 11] [Chart set 12] [Chart set 13] [Chart set 14] [Chart set 15] [Chart set 16]
[Chart set 17] [Chart set 18] [Chart set 19] [Chart set 20] [Chart set 21] [Chart set 22] [Chart set 23] [Chart set 24]
[Chart set 25] [Chart set 26] [Chart set 27] [All in one]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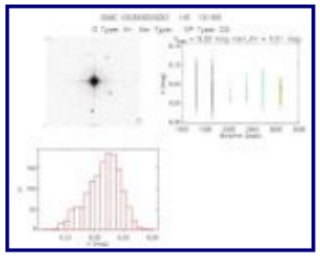
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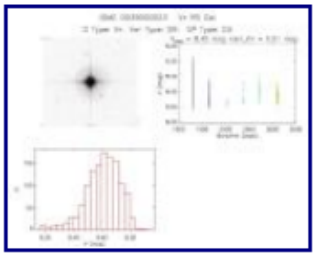
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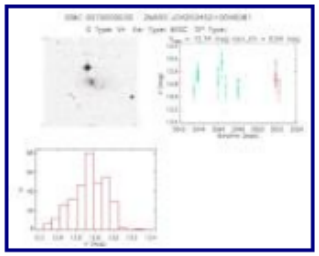
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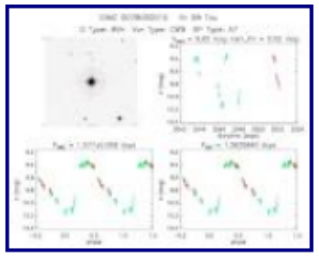
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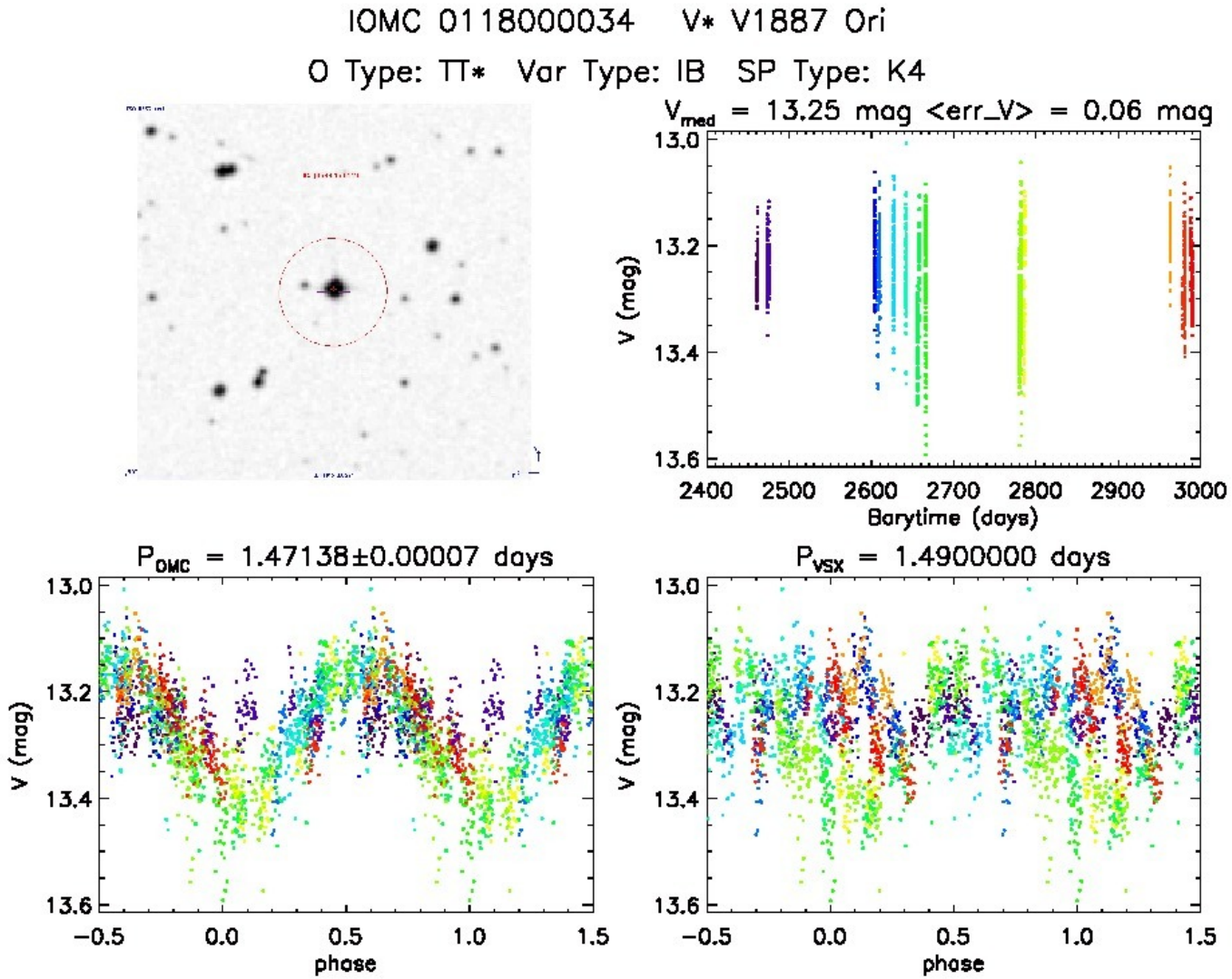
OMC Variable Objects Catalogue



OMC Variable Objects Catalogue