

REAL-TIME OPTICAL MONITORING OF GAMMA-RAY SOURCES WITH THE OMC ONBOARD INTEGRAL

A. Giménez and J.M. Mas-Hesse (on behalf of the OMC consortium) (LAEFF)

In order to ensure the continuous optical monitoring of all high-energy sources observed with INTEGRAL during its life time, a small camera with a CCD detector was incorporated to the payload. The OMC (or "Optical Monitoring Camera") is a 5 x 5 degrees field of view refractive system focused on a 1K x 2K pixels CCD working in frame transfer mode. A Johnson V filter is included in the optical path to allow for standard calibration.

High-energy sources as faint as 19 mag. in V will be monitored simultaneously with the gamma-ray and hard X-ray measurements provided by the other instruments onboard INTEGRAL. Time resolution is limited to 1s but, in most cases, the optical monitoring will provide measurements around every 1 min. during the much longer pointings. Many individual points will therefore be obtained for any given source during normal scientific operations of the spacecraft, and for around 100 different objects in each field of view, allowing the determination of their light curves. Both galactic, basically accreting sources, and extragalactic objects, mainly AGNs, will be subject to long term monitoring campaigns.