21 years of INTEGRAL/OMC complementary science

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Abstract

The Optical Monitoring Camera (OMC) has been observing the optical emission from the prime targets of the gamma-ray instruments on-board the INTErnational Gamma-Ray Astrophysics Laboratory (INTEGRAL) since its launch on 17 October 2002. Simultaneously to these observations of the prime targets, the OMC has been acquiring data from about 100 objects of interest within its $5° \times 5°$ field of view of each exposure, mainly optically variable or suspected variable sources. The analysis of these complementary observations has led to many interesting scientific results. After 21 years of INTEGRAL/OMC observations, the OMC Archive, publicly available at https://sdc.cab.inta-csic.es/omc/, contains the light curves of about 105 000 scientific objects with more than 50 photometric points. Furthermore, in 2012 we published the first INTEGRAL/OMC catalogue of variable sources, where we provided a compilation of clean and ready-to-use OMC light curves of a selected sample, together with some useful information on the variability and periodicity of these sources.

In this contribution we summarise the present contents of the OMC Archive and review some of the most interesting results on OMC complementary science using data from the OMC Archive and/or the first INTEGRAL/OMC catalogue, obtained by the scientific community so far for different types of variable sources.

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