

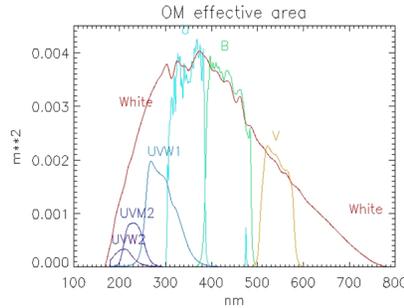
Catálogo de fuentes detectadas por el Monitor Óptico y Ultravioleta (OM) de XMM-Newton

Antonio Talavera¹, Vladimir Yershov², Matt Page² & Alice Breeveld²

The Optical-UV Monitor (30 cm diameter telescope) provides simultaneous observations in a 17x17 arcmin² field of view with the X-ray instruments on board XMM-Newton (Mason et al, 2001)

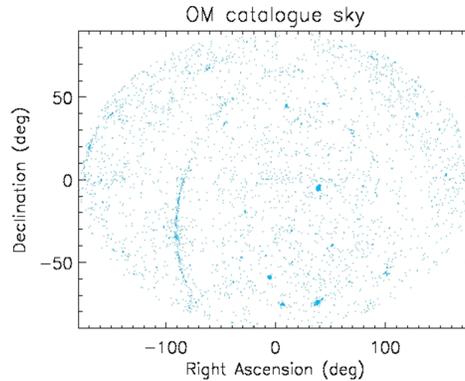


Composite OM image of the Crab (UVM2, UVW1 and U)



Optical Monitor filters wavelength (nm):

- UVW2: 212
- UVM2: 231
- UVW1: 291
- U: 344
- B: 450
- V: 543

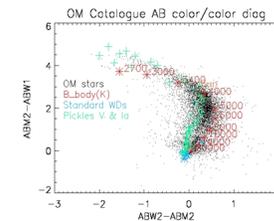


Catalogue Statistics

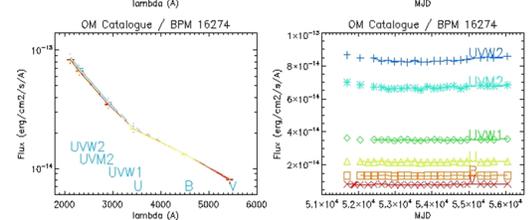
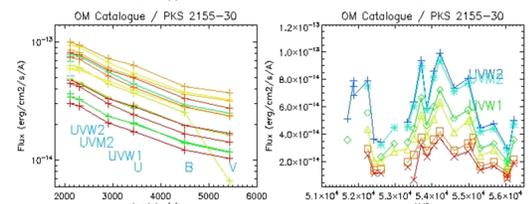
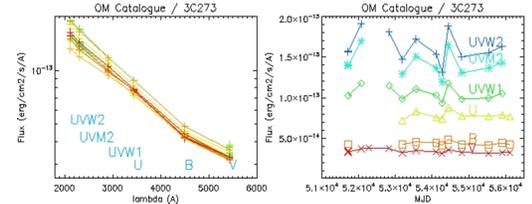
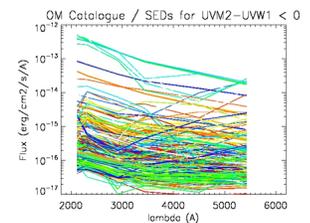
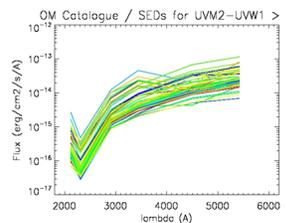
- **6,604 observations**
- **5,595,331 entries**
- **4,008,879 sources**
- **692,223 entries of repeated sources**
- **63,589 sources with all UV filters**
- **7,658 entries with all OM filters**

The Catalogue

- We present the second release of the XMM OM Serendipitous Ultraviolet Source Survey catalogue (XMM-SUSS2).
- The catalogue spans the period of observations from 2000 to 2012.
- The data were processed in January 2014 at the European Space Astronomy Centre (ESAC, Madrid, Spain) and at Mullard Space Science Laboratory (MSSL, UCL, London, U.K.) by using the XMM Science Analysis Software (SAS) with some improved tasks which will be available in system version 14.0.
- The description of the previous release of the catalogue can be found in Page M.J. et al. (2012).
- In addition to covering a larger observation period, the second release differs from the previous one by including all the OM observations (not only those containing UV filters) and by performing source detection on stacked images, thus facilitating the detection of fainter sources.
- The Catalogue consists of two tables. The first one contains the sources, with positional and photometric data (count rate, magnitude and flux) and quality flags for each measurement. In the second table we give a summary of the observations from which the sources have been detected and measured.
- The XMM-Newton Science Archive (<http://xmm.esac.esa.int/xsa/>) provides access to the OM Catalogue as a complete download of the file (800 Mb, compressed fits format) as well as through a search interface whose results can be stored by the user in several formats. A reduced version of the complete catalogue (400 Mb, compressed fits format) can be downloaded as well.



UV colour diagram for all sources having data in all UV filters and selected SEDs



Science with the catalogue:
It can be used for single source studies, classes of objects, statistics,....
In the graphs we show colour/colour diagrams, spectral energy distributions and variability for several objects.

Variability and Spectral Energy distribution of several sources

References:
Mason K.O. et al., 2001, A&A, 365, L36
Page M.J. et al, 2012, MNRAS, 426, 903
Talavera A., 2011, Ap&SS, 335, 291

¹XMM-Newton Observatory, ESAC, Spain
²Mullard Space Science Lab, UCL, UK