XMM-Newton CCF Release Note

XMM-CCF-REL-101

OM Photometry

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1 CCF components

Name of CCF	VALDATE	List	of	Blocks	CAL VERSION	XSCS flag
		$_{ m changed}$				
OM_COLORTRANS_0006	2000-01-01T00:00:00	COLORMAG				No

2 Changes

The zero-points are updated using new routine calibration observations of spectrophotometric standards LLB 227 and GD153. New color-transformation is set by folding the Bruzual_Persson_Gunn_Stryker spactra with the in-flight response curves of the OM.

The actual values of the colour transformation are determined from the new algorithm described in the current CAL handbook. Therefore the ALGOID keyword is set to 1 now.

3 Scientific Impact of this Update

This update should improve the accuracy of the OM photometry. This has been confirmed from published photometry in M67 field and the ground-based calibration programme. However, since OM photometric calibration is still on-going, a new update will be released soon once we have got enough ground-based and OM in-flight observations.

4 Estimated Scientific Quality

The colour transformation of model spectra was found to be good at the 0.05 mag level or even better.

The accuracy of U,B,V calibration is generally better than 0.1 mag. The UV calibration is more uncertain (especially for UVW2) than the visible calibration mainly due to variable contamination in the ultraviolet wavelength.

5 Acknowledgements

Thanks to OM team members, especially Igor Antokhin for his contributions.