

# XMM-Newton CCF Release Note

XMM-CCF-REL-14

## RGS Line Spread Function

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### 1 CCF components

Name of CCF	VALDATE	List of Blocks changed	CAL VERSION	XSCS flag
RGS1_LINESPREADFUNC_0001	1999-01-01T00:00:00	SCATTER, LAS-CAT	—	NO
RGS2_LINESPREADFUNC_0001	1999-01-01T00:00:00	SCATTER, LAS-CAT	—	NO
RGS1_CROSSPSF_0001	1998-01-01T00:00:00	CROSSPSF	—	NO
RGS2_CROSSPSF_0001	1998-01-01T00:00:00	CROSSPSF	—	NO

### 2 Changes

**LINESPREADFUNC** This contains parameters of

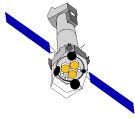
- half energy width of the grating co-alignment distribution based on pre-flight integration data
- the scatter model based from pre-flight modeling. No change to the scatter model was identified so far;

`rgsrmfgen` does not use this CCF.

**CROSSPSF** Contains parameters of a pre-flight parameterization of the size of the dispersed image in the cross-dispersion direction as a function of dispersion angle. These parameters are based on simulations with SciSim;

these data are used by for the generation of the image slection regions `rgsregion`.

`rgsrmfgen` does not use this CCF.



### 3 Scientific Impact of this Update

First release.

### 4 Estimated Scientific Quality

`rgsrmfgen` uses pre-flight data for the parameterizations of the LSF. At this point in time these are internal to `rgsrmfgen`.

The pre-flight parameterizations in general need to be reviewed together with updates from the mirror PSF, which are not being used at the moment.