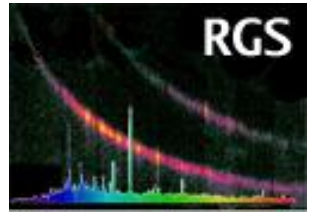
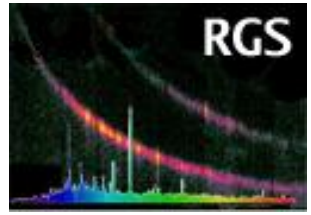


9th ESAC SAS Workshop
June 29 – July 3 2009

Step-by-step guide to the RGS data analysis threads

Rosario González-Riestra

XMM-Newton SOC
ESAC



Two Threads:

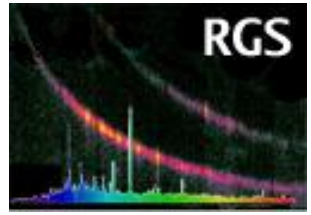
- How to reduce RGS data and extract spectra of point-like sources

http://xmm.esac.esa.int/sas/currrent/documentation/threads/rgs_thread.html

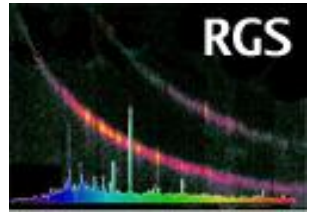
- rgsproc, coordinates and masks

http://xmm.esac.esa.int/sas/current/documentation/threads/rgs_thread_2.html

How to reduce RGS data and extract spectra of point-like sources



- running rgsproc
- the output filenames
- checks:
  - ✓ coordinates
  - ✓ extraction regions position
  - ✓ high background periods
- …and answers to some frequent questions



rgsproc, coordinates and masks

- How to deal with some common problems

  ✓ wrong source coordinates

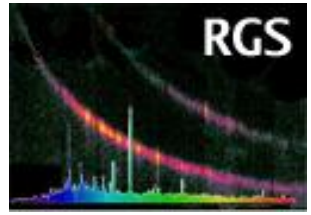
  `how to change the coordinates of the prime source`

  ✓ several sources in the Field of View

  `how to change the background region`

  ✓ moderately extended sources

  `how to change the size of the extraction region`



RGS data for the hands-on session

AB Dor	Active star, emission line object, off-axis
PKS 0558-504	Quasar, continuum spectrum
Mkn 421	BL Lac, continuum spectrum
G21.5-09	SNR, extended source
Lockman Hole	Empty field
HD 13499	F star, empty field