Current Activities

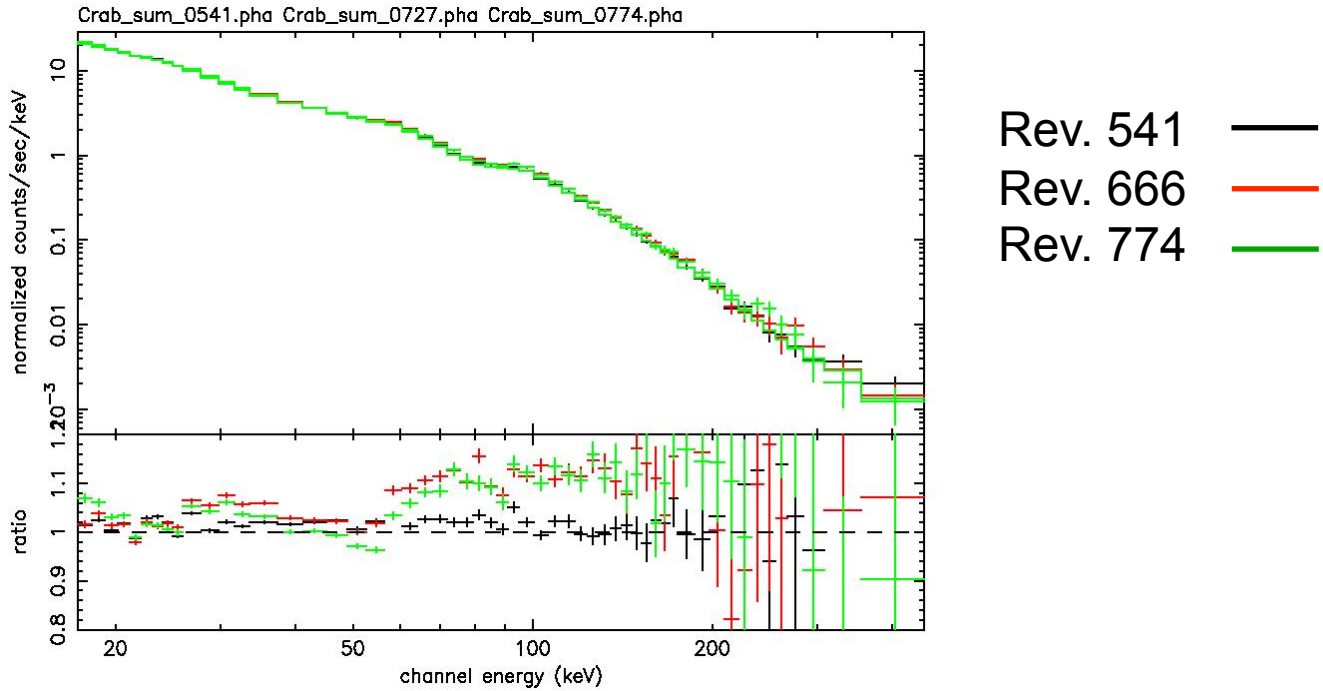
Update existing responses to OSA 8.0:

- **Latest ARFs delivered have been obtained with OSA 7**
- **OSA-8 software contains minor changes in *ii-spectra-extract* (includes new interpolation of IREM data)**

Provide new ARFs for more complete time coverage:

- **Relatively small changes in the charge loss effect requires to use post-facto response correction by using Crab in-flight data: need time dependent ARFs to account for (typically each 1 year)**
- **Latest ARFs delivered up to rev. 541: provide new ARFs to cover latest period *(see next slide)***

A look at recent Crab spectra



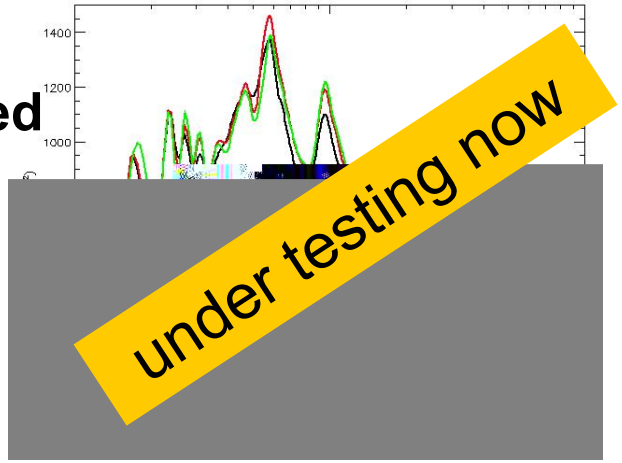
The fit of the most recent Crab data with the Rev.541 response shows the need for update.

The data show a significant change occurring especially between Revs. 541 and 666

All spectra are produced with OSA 8.0

Production of new ARFs

- **New ARFs from three recent revolutions have been produced**
- **Now in testing phase *(Saclay and Rome)***
- **Test against source data and determine validity periods**



Rev. 541
Rev. 666
Rev. 777

Rev. 605

Example test:

Look at the Crab data of Rev. 605 vs. Revs. 541 and 666 ARFs

Ratios of data vs. Crab model show preference for Rev.666 ARFs

Final Remarks

- **Testing of the ARFs for the last 3 years period to be completed (*expectation: delivery before mid-March*)**
- **On a preliminary analyis, OSA-7 released ARFs seem to behave rather satisfactorily (within ~1-2%) for OSA-8 spectra taken before ~Rev. 550**
- **To be decided if new OSA-8 ARFs are needed before Rev. 541 observation**

….wait OSA-9 release?

New determination of the IBIS PSLA

- The Point Source Location Accuracy of IBIS has been checked against a large amount of data obtained from sources with best known positions:

332 sources from the IBIS catalog with position error < 30”

Database analysed: 40,000 SCWs, OSA version 7.0

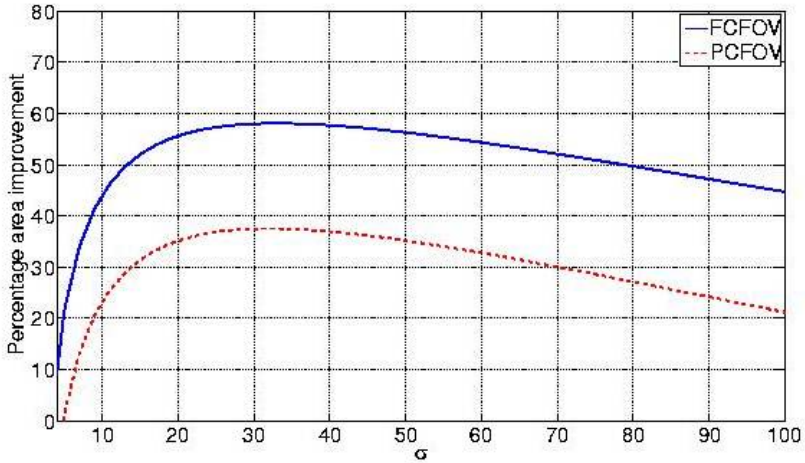
- The only available determination to date is reported by Gros et al. (2003) based on analysis of SCWs from Crab and other few bright sources, and early analysis software (OSA3)

- Method

Record and analyze the measured offset distribution respect to true positions in FCFOV and PCFOV (~100,000 offset measurements) against SNR

Main results

The PSLA is found to be improved significantly by the new analysis



The PSLA is found to be improved significantly by the new analysis. For SNR > 10σ the area of the error region for source search improves by:

> 20% (up to 40%) for PC sources,

➢45% (up to 60%) for FC sources

PRELIMINARY RESULTS by S.Scaringi et al