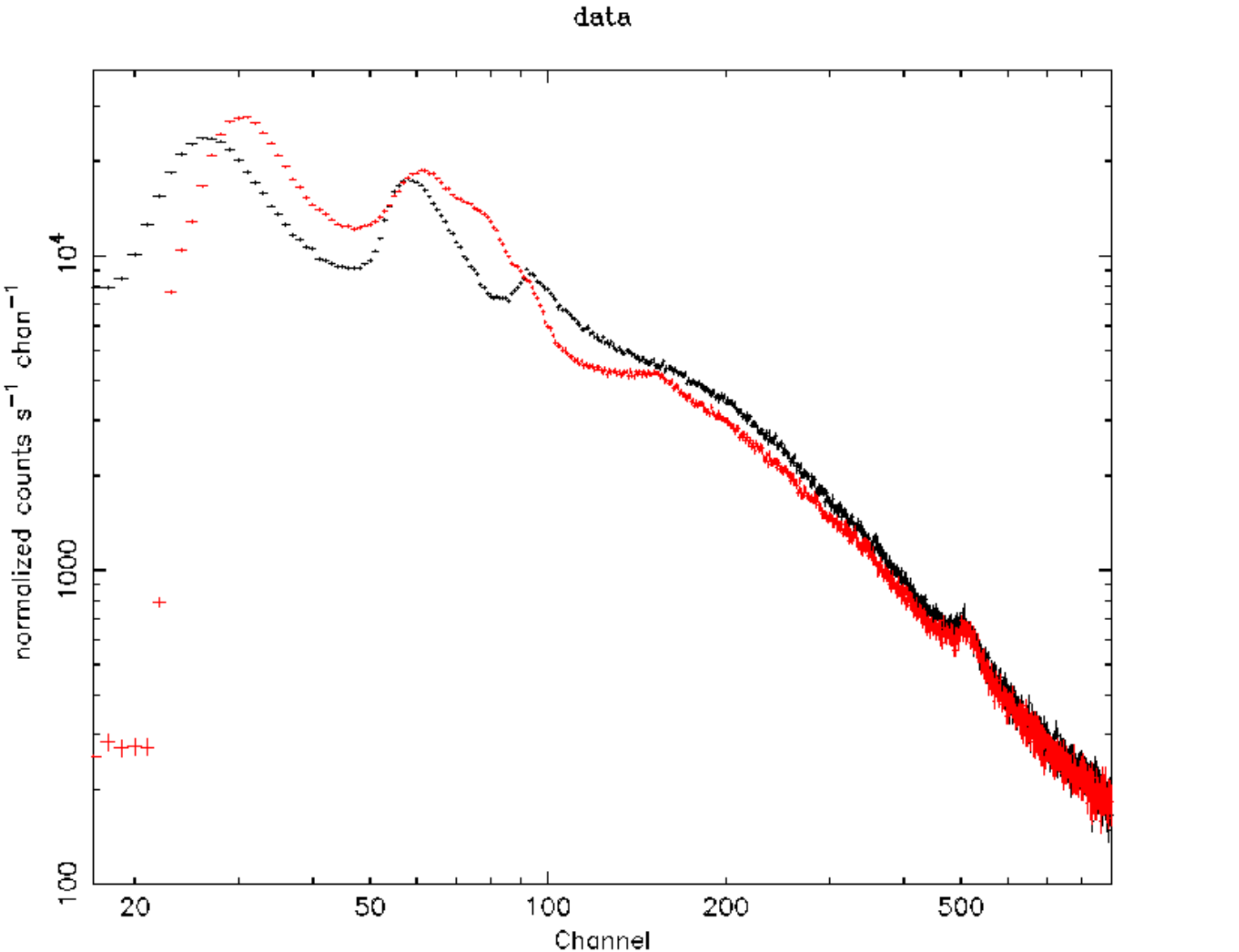
OSA 11
tests at IKI

with R.Krivonos, S.Molkov, I.Mereminsky

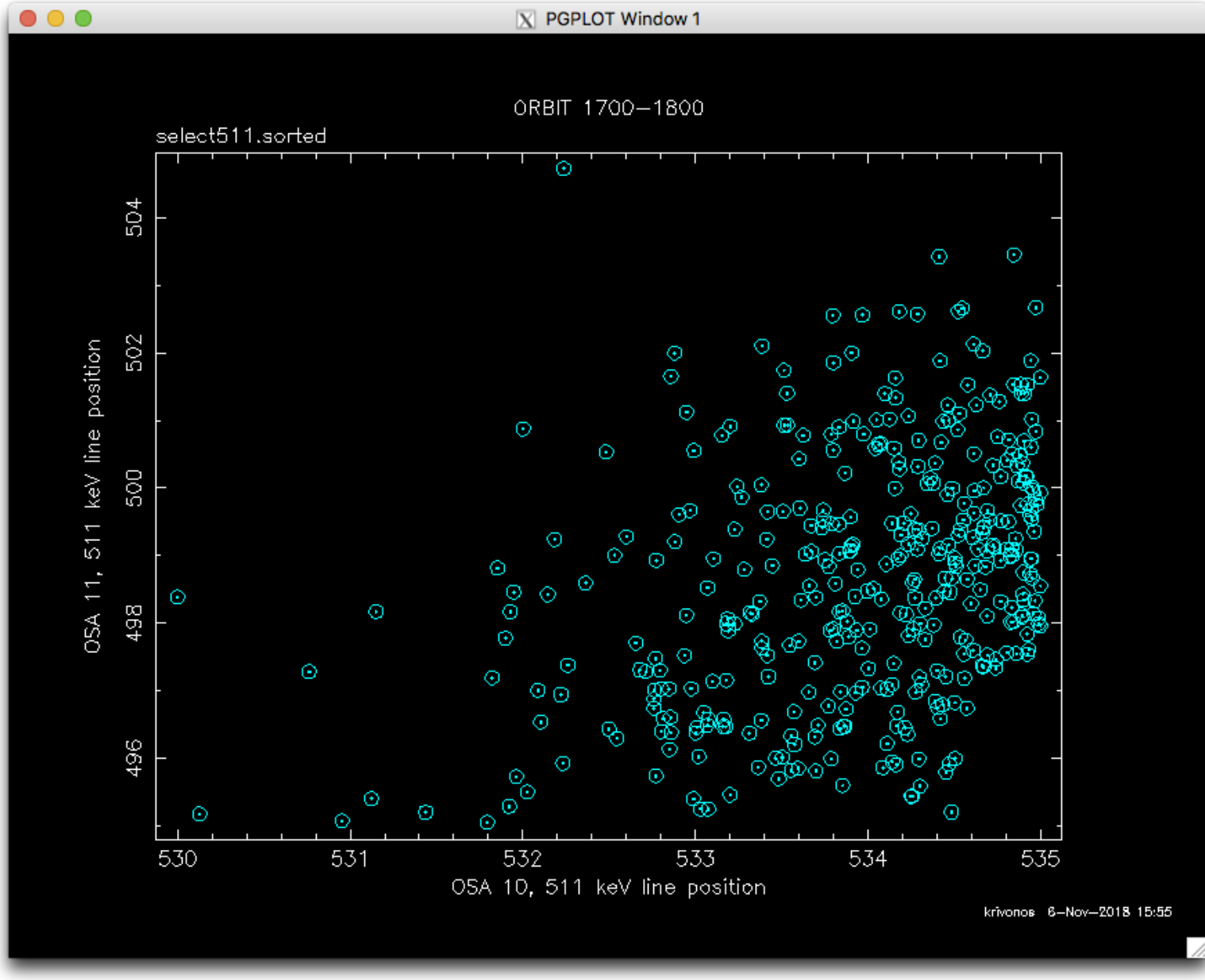
Detector spectra



Energy of 511 keV line

Revs 1700-1800

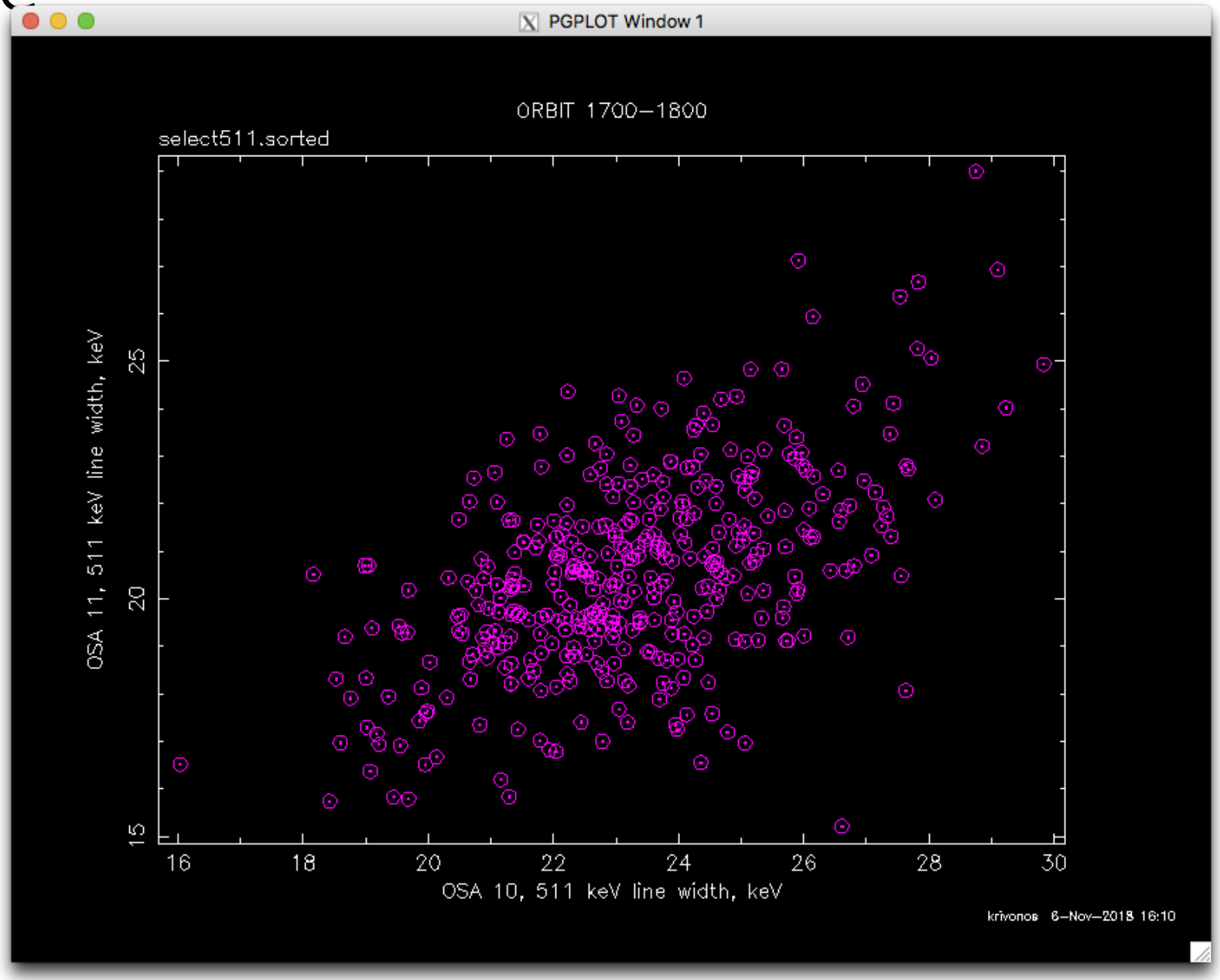
Position of the 511 line is lower that it was before



Width of the 511 line

Revs 1700-1800

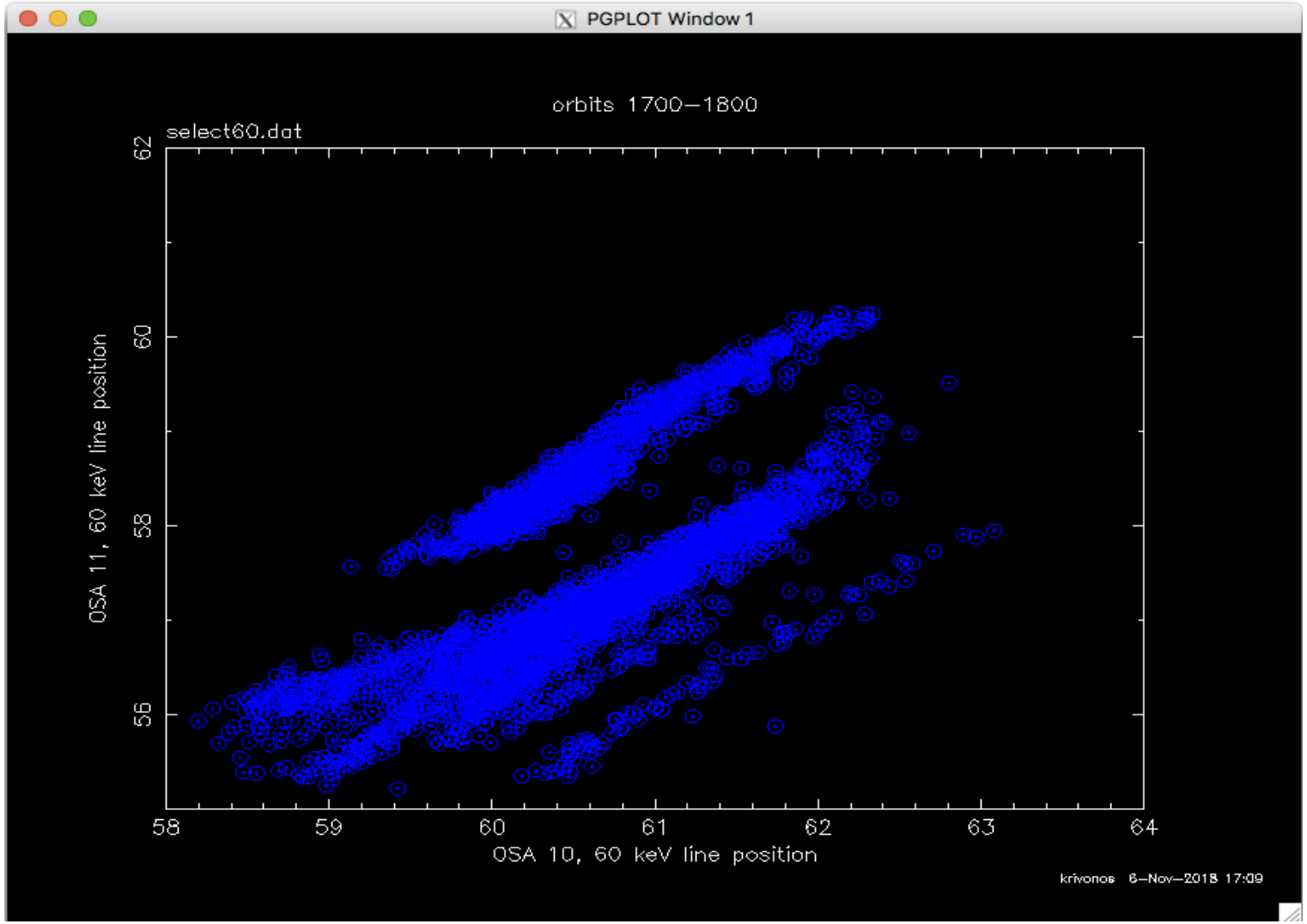
Width of the 511 line is lower that it was before (OSA 10)



Position of the 60 keV (59.6)calibration line

Separate tracks show an evolution of the line energy during one revolution (probably due-to the polarization effect, which is restored after the switch-off-on of the instrument).
Data from the COR level

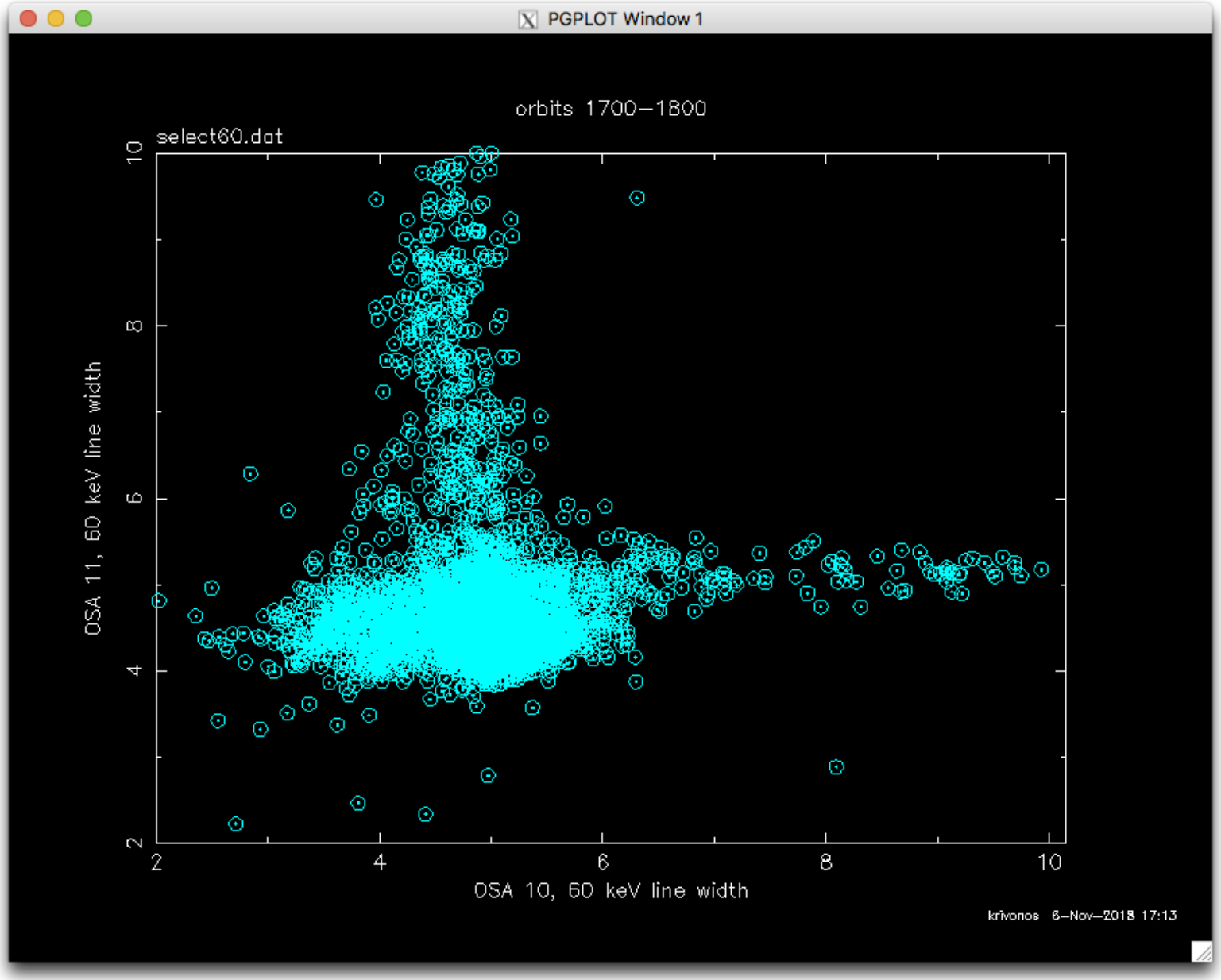
In general, OSA 11 give a lower energy of the line



5. Since 2016, ISGRI occasionally experiences particularly rapid and unpredictable changes in the detector response, at the scale of up to 5%, which are not corrected in the energy reconstruction and response computation.

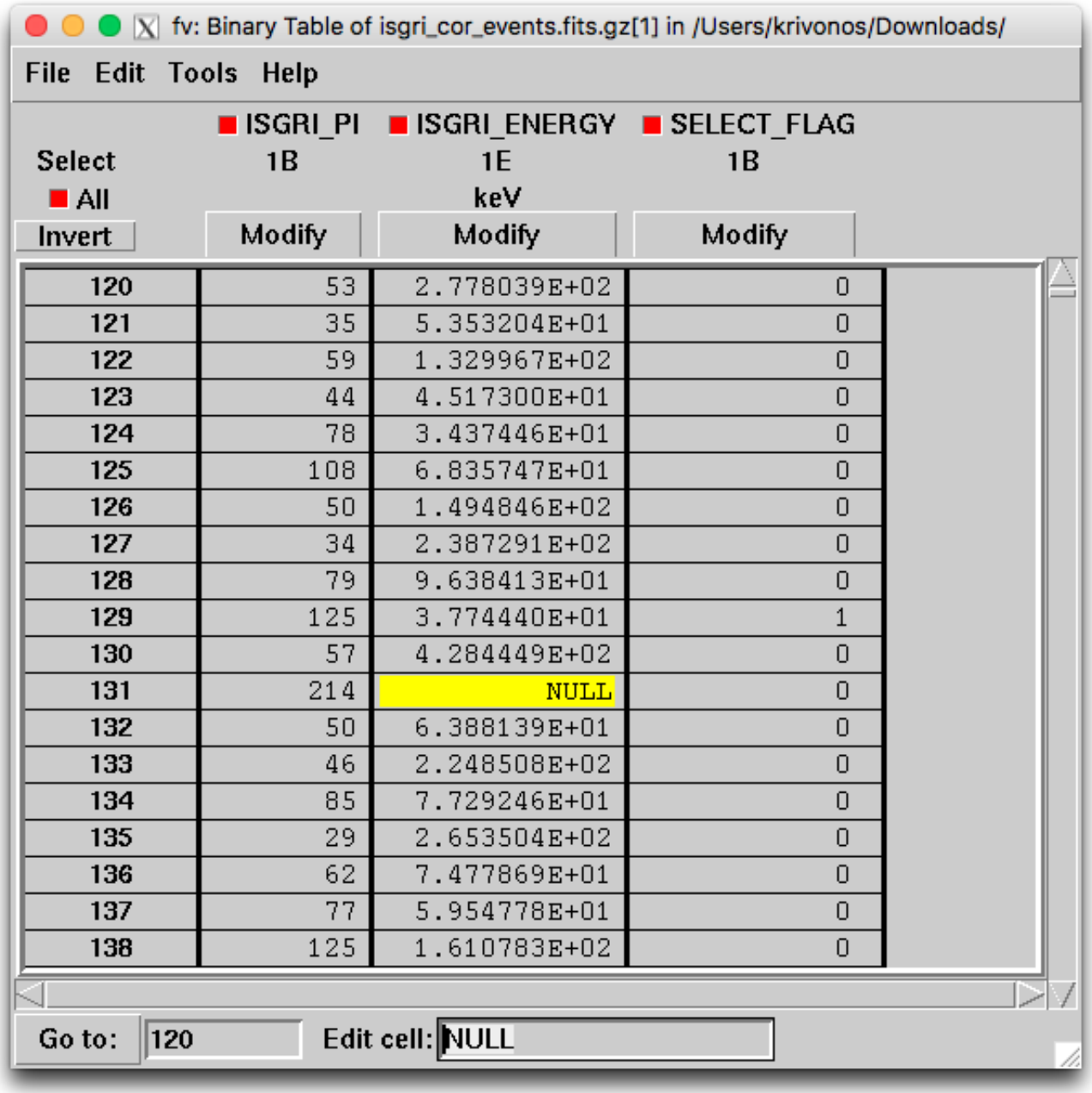
Width of the 60 keV calibration line

Energy resolution is improved for the most of revolutions/scws
(width of the clump is lower for OSA 11 in a comparison with OSA 10),
but there are “tails” which are needed to study



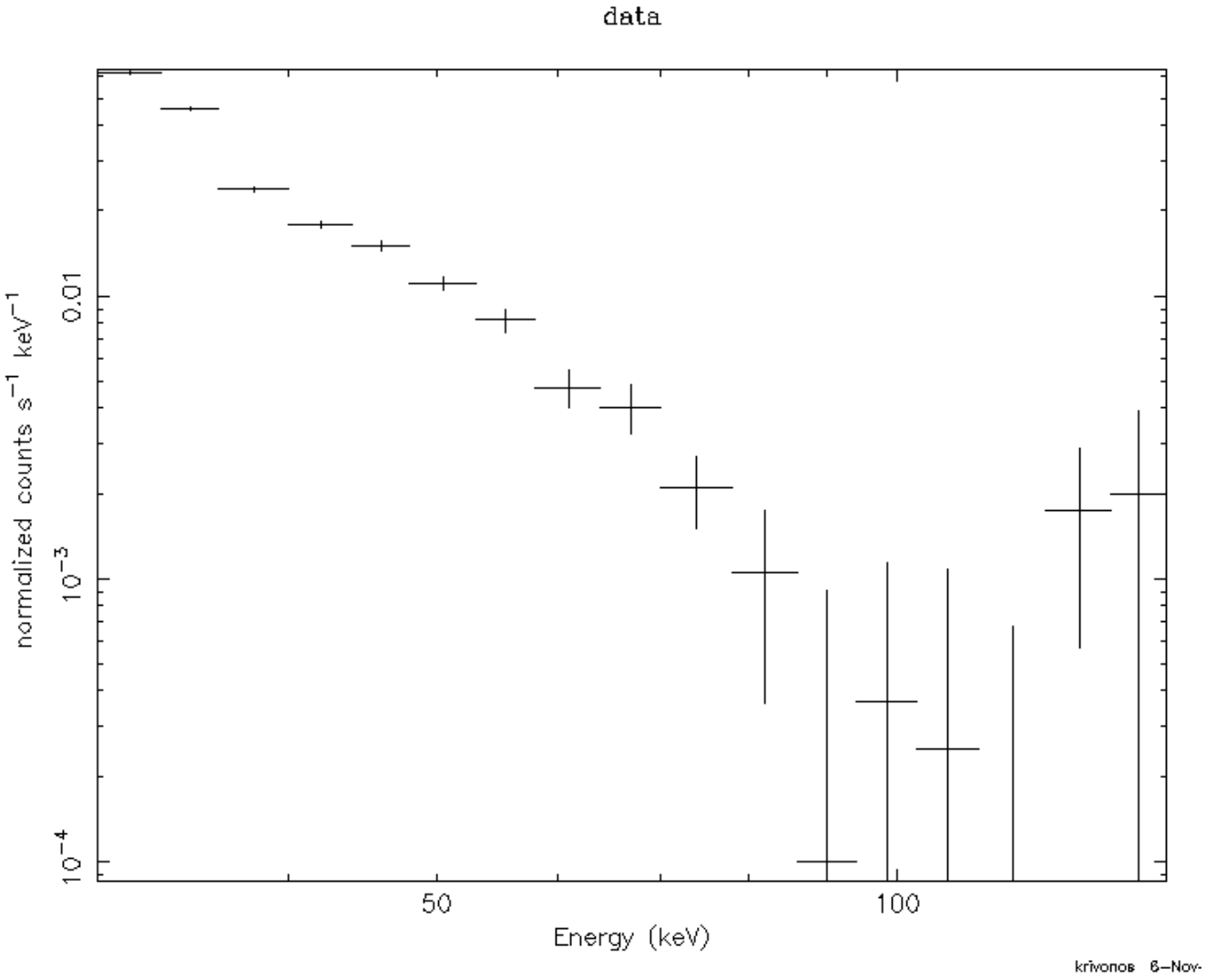
NULL values in ISGRI_ENERGY (COR level)

Was not recognized in OSA 10.2



MAXIJ1820+070

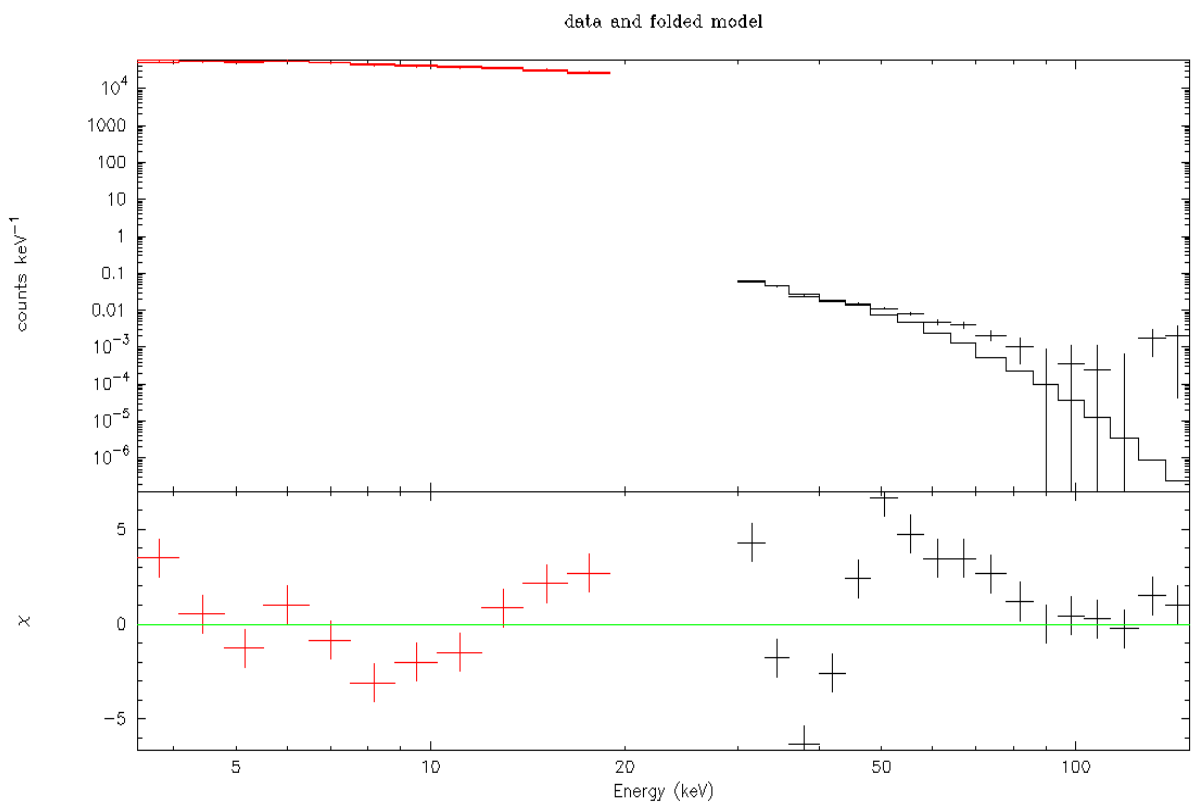
1) Spectra with OSA 11 are much better that with OSA 10.2.
2) An agreement between ISGRI and SPI is about 5% on the normalization, shape is in agreement as well.
3) Problems with the extraction of the spectrum from JEM-X data in the normal way
(and quality is not so good)

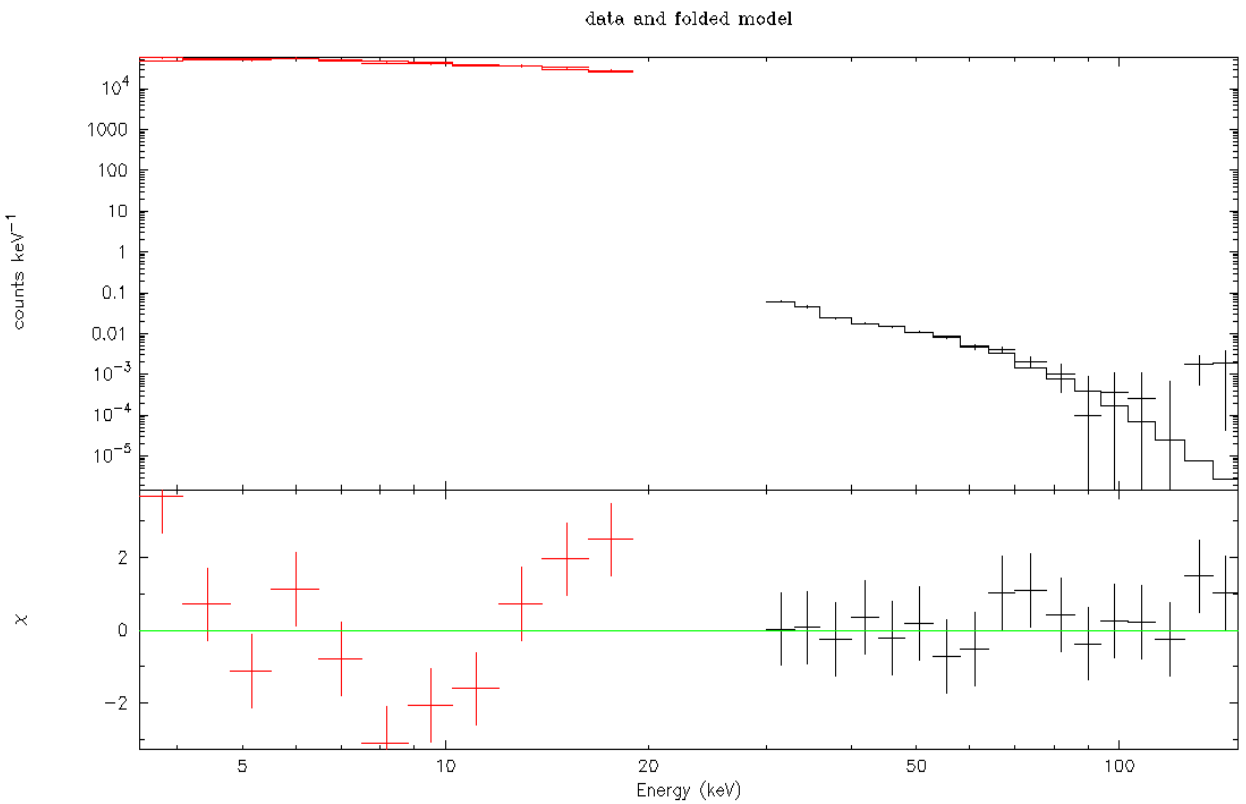


But there are no peculiarities

Her X-1

(1975, 1976 revs)



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Model Model Component  Parameter  Unit     Value
 par  comp
                              Data group: 1
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   2    2   powerlaw    PhoIndex           0.692146     +/-  2.96326E-02
   3    2   powerlaw    norm               4.93775E-02  +/-  0.160533
   4    3   highecut    cutoffE    keV     20.4623      +/-  32.9466
   5    3   highecut    foldE      keV     10.1388      +/-  0.298129
   6    4   gabs        LineE      keV     41.2466      +/-  0.538834
   7    4   gabs        Sigma      keV     6.29543      +/-  1.05244
   8    4   gabs        Tau                8.02494      +/-  2.29401
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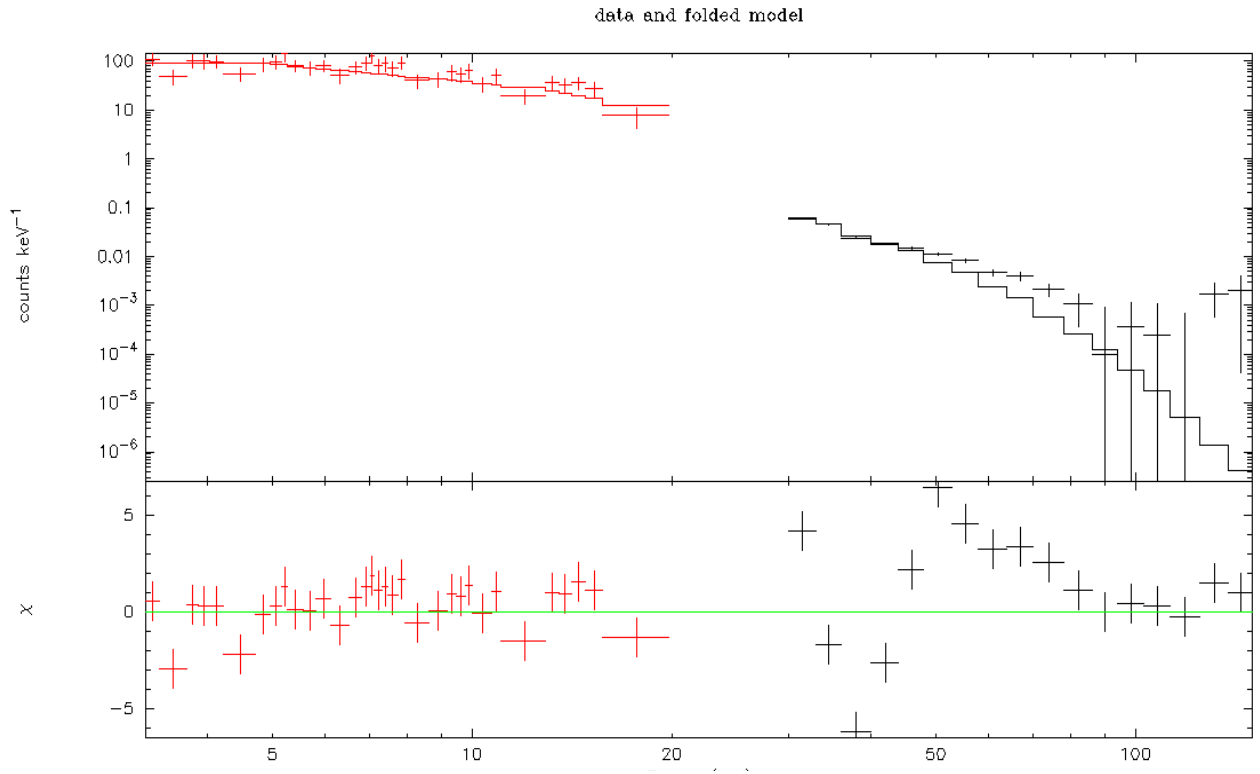

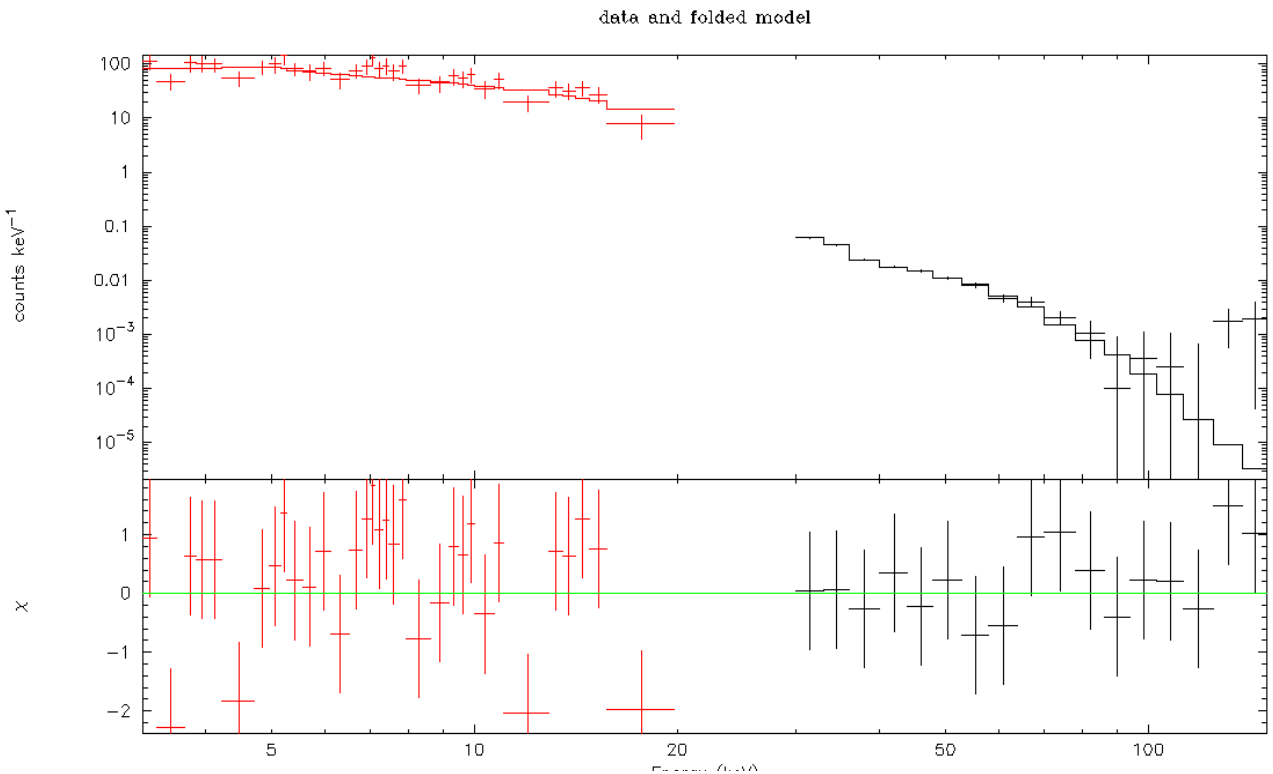


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========================================================================
Model constant<1>*powerlaw<2>*highecut<3>*gabs<4> Source No.: 1   Active/On
Model Model Component  Parameter  Unit     Value
 par  comp

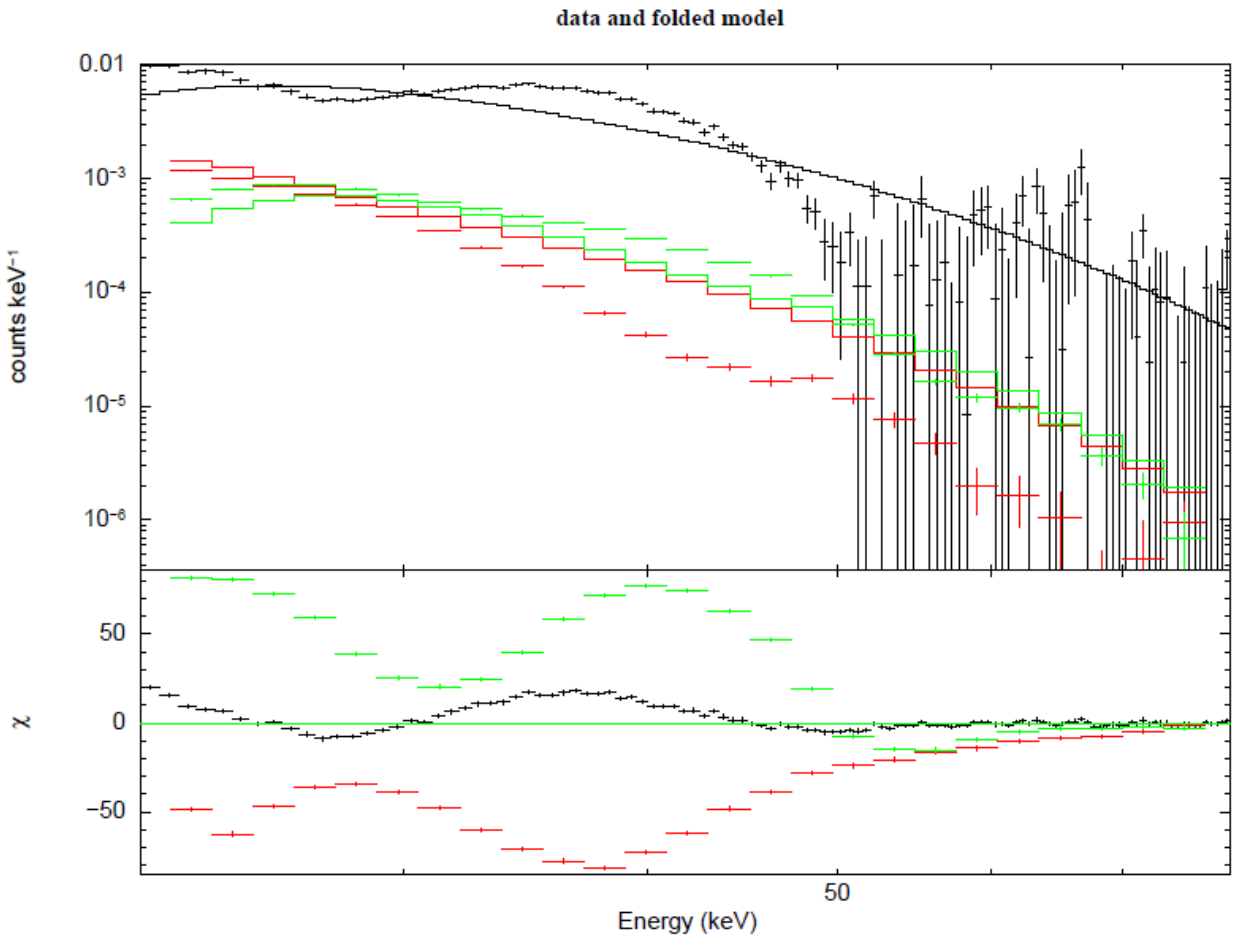
                          Data group: 1
   1    1   constant    factor                1.00000      frozen
   2    2   powerlaw    PhoIndex              0.861407     +/-  0.163012
   3    2   powerlaw    norm                  6.13298E-02  +/-  1.13467
   4    3   highecut    cutoffE     keV       23.7971      +/-  198.340
   5    3   highecut    foldE       keV       10.5886      +/-  0.543891
   6    4   gabs        LineE       keV       41.2496      +/-  0.543977
   7    4   gabs        Sigma       keV       6.24897      +/-  1.05766
   8    4   gabs        Tau                   7.76593      +/-  2.24597
```

1) Tests of OSA 11
Work is in progress:
cross-test Her X-1/ISGRI spectra with SPI (in couple of days)

2) Calibration OSA 11 till first revolutions. Is it real?
When? Carlo's talk

3) PIF for JEM-X. Is it real?

4) Crab observations in 1999-2000 revs are closed. ???



1565 rev