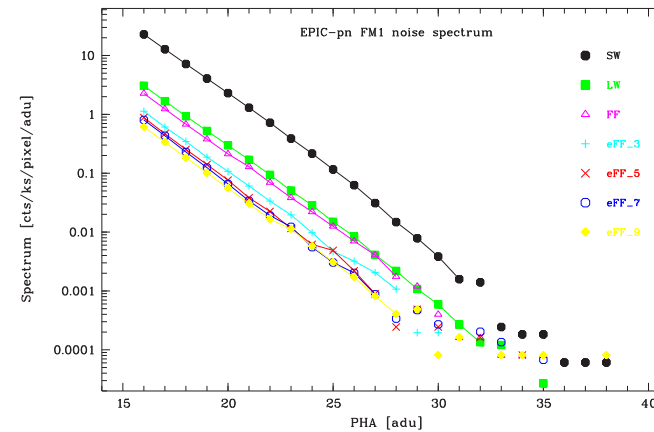
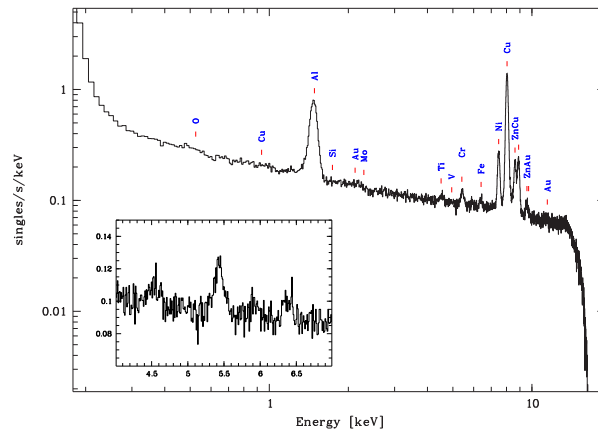
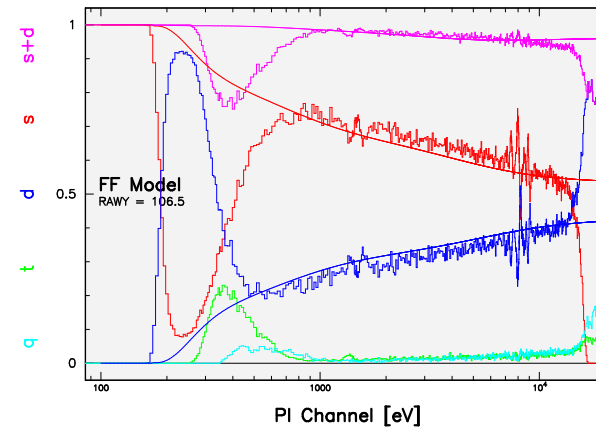
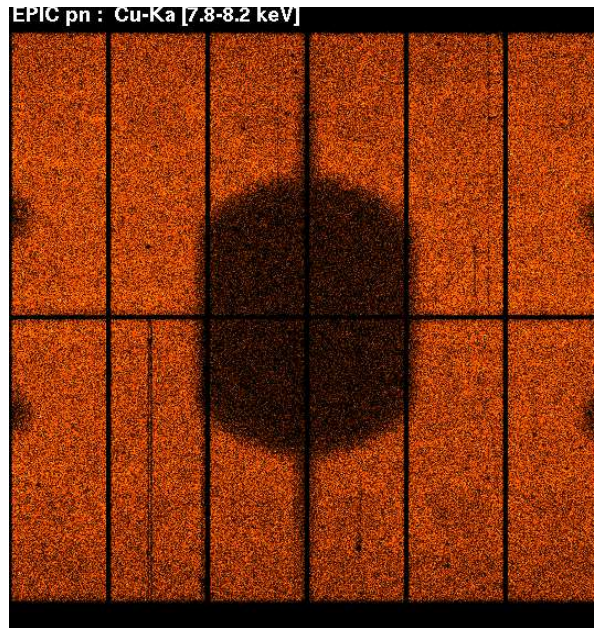


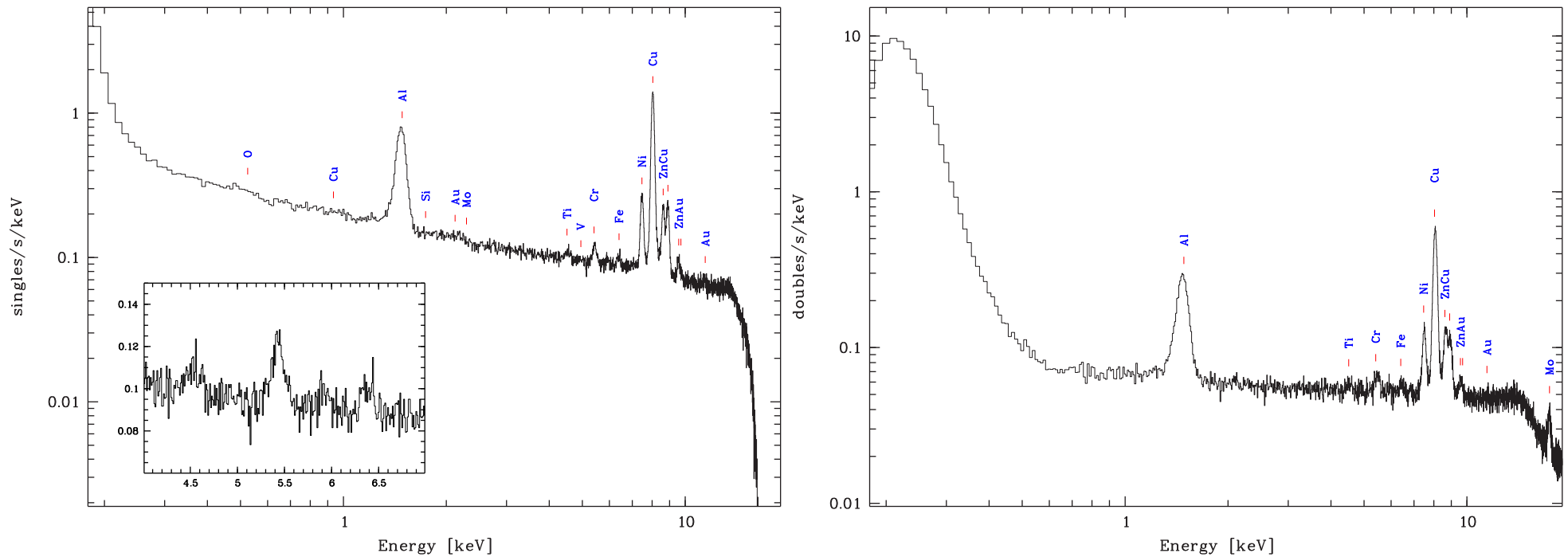
EPIC-pn background: updates



EPIC-pn background items

- particle induced background (Closed filter files)
- detector (read-out) noise
- noisy pixels and columns
- soft proton background
- out-of-time events
- cosmic X-ray background
- solar wind X-ray background
- single reflections (Large Window Mode)

EPIC-pn: Closed filter observations

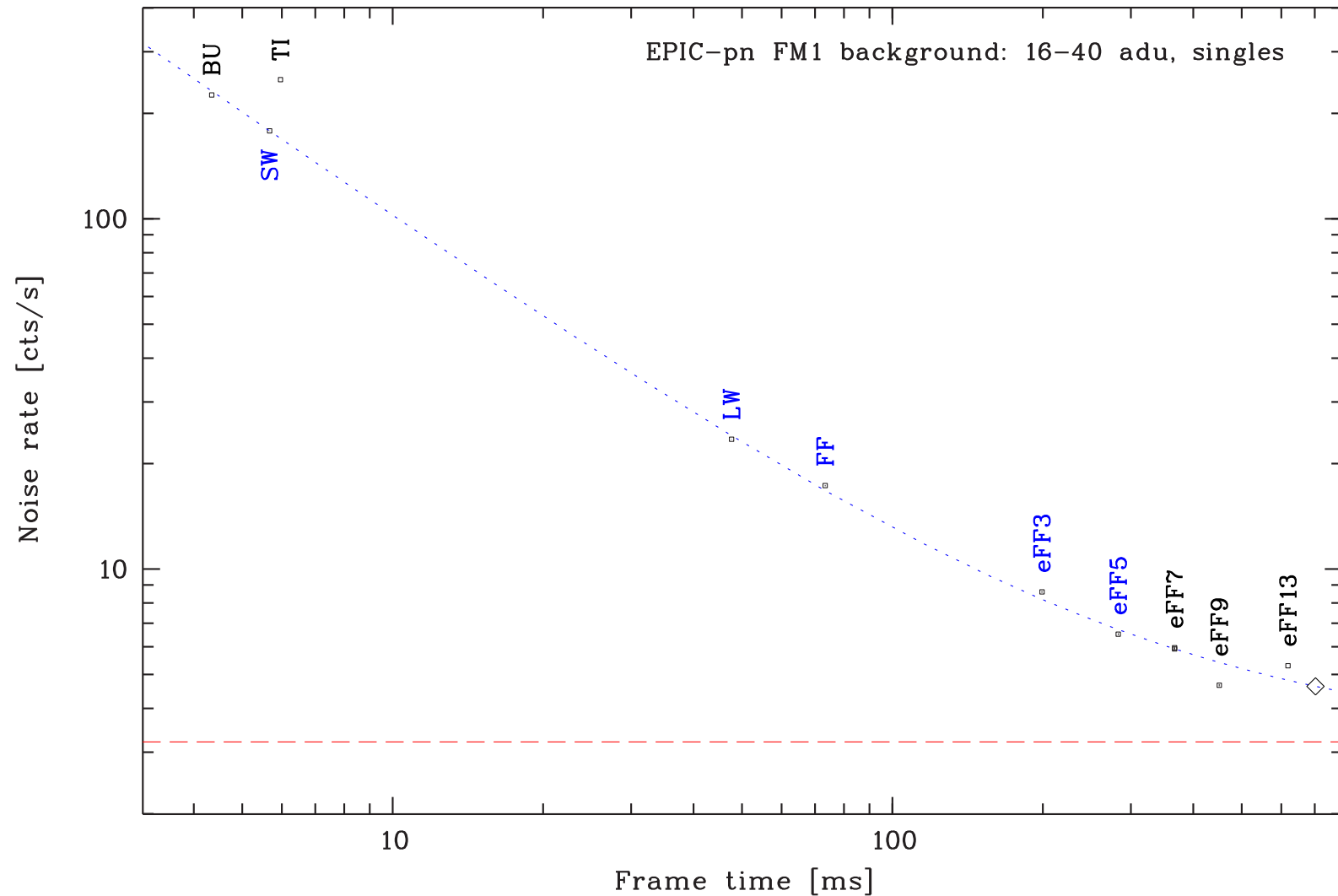


AI_EPIC_BG_WG_01_05: processed files
<http://www.xray.mpe.mpg.de/~mjf/pn-bkg/>

EPIC-pn: particle induced background (Closed filter)

- summary WWW page for EPIC-pn Closed filter observations
- WWW pages for each mode (FF, eFF, LW, SW, TI, BU), e.g. <http://www.xray.mpe.mpg.de/~mjf/pn-bkg/LW.html>
- for each mode link to merged Closed filter event file
- files reside on FTP area and are updated depending on new SAS or new calibration or new observations, location may change (therefore direct link discouraged)
- for some time (TBD) several versions may be available (TBC), e.g. to reproduce previous results

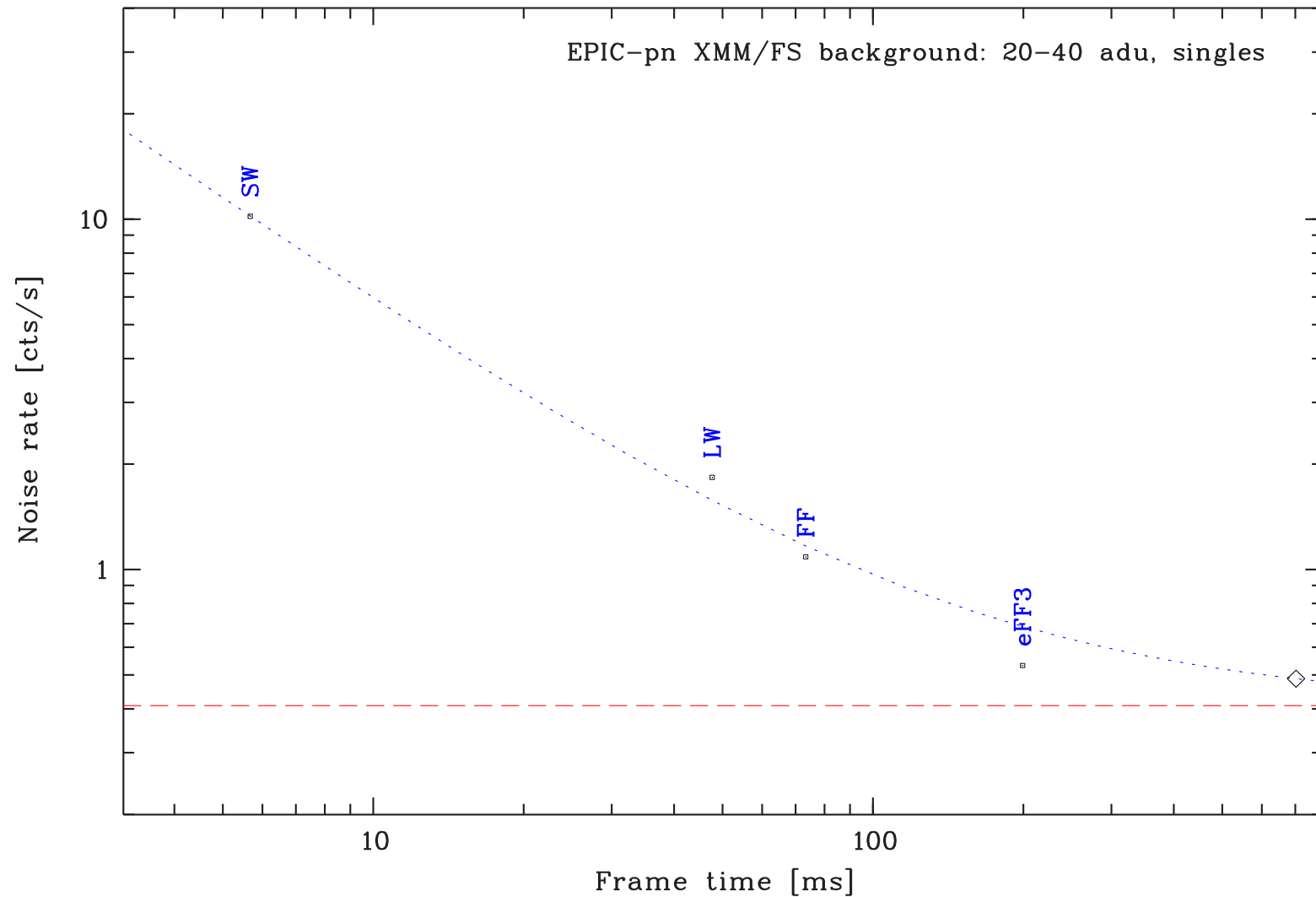
EPIC-pn: low-energy background (FM1, 16 – 40 adu)



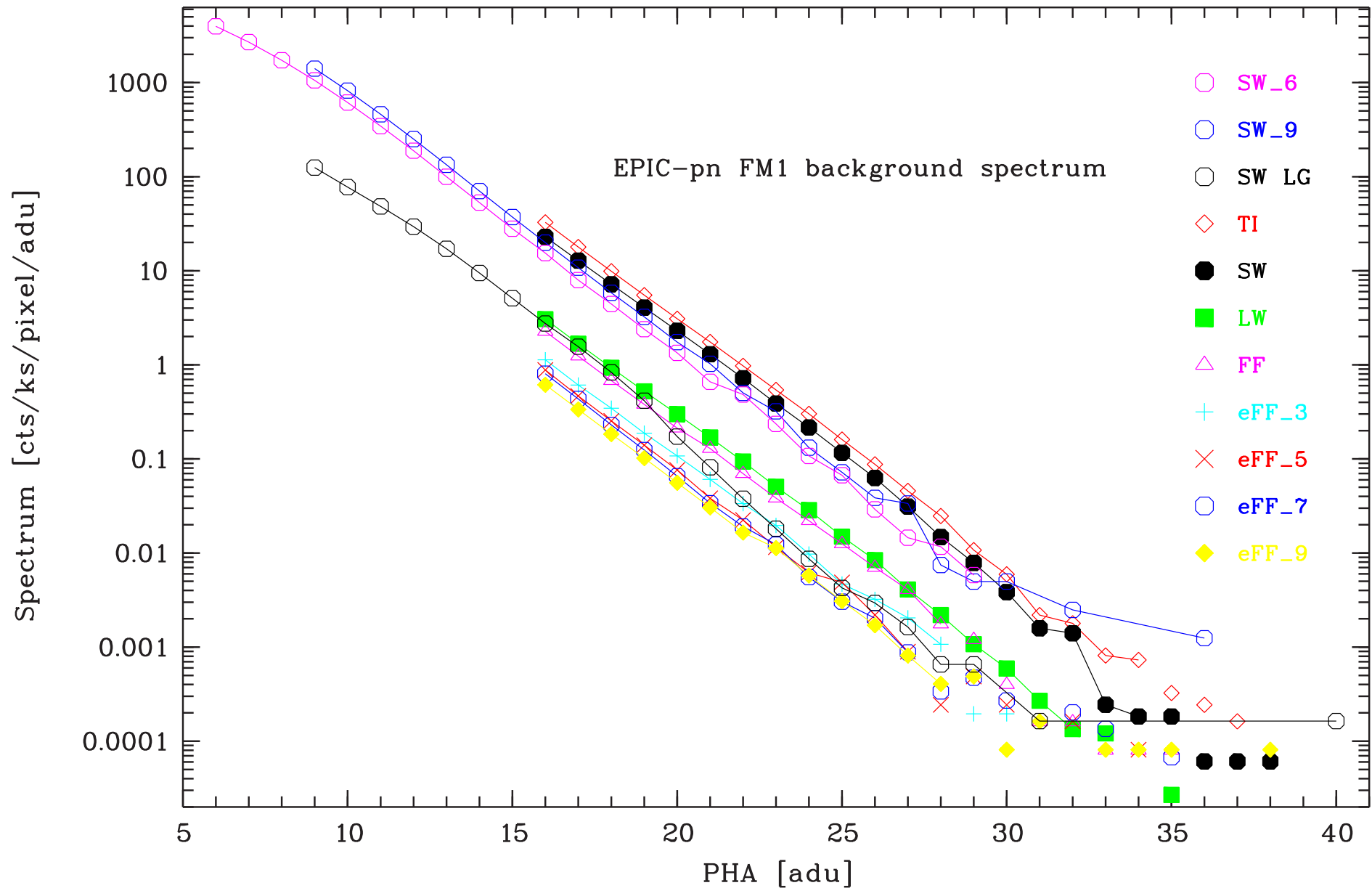
$$\text{ABS_RATE} = C * (\text{NUMBER_OF_READOUTS_PER_SECOND} + B)$$

$$C = 0.9924 \pm 0.0030 \text{ [cts s}^{-1}\text{]}, B = 3.28$$

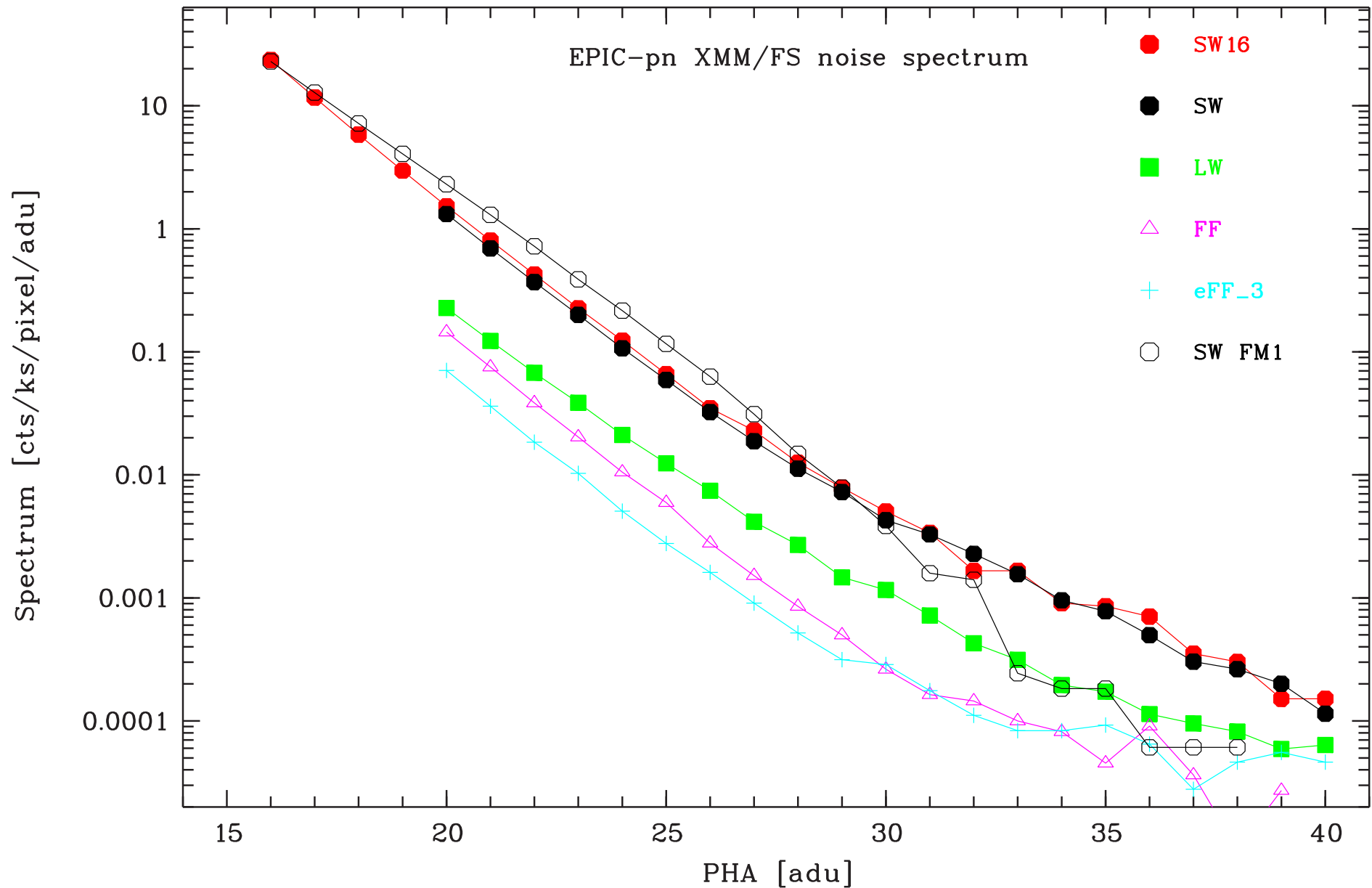
EPIC-pn: low-energy background (FS, 20 – 40 adu)



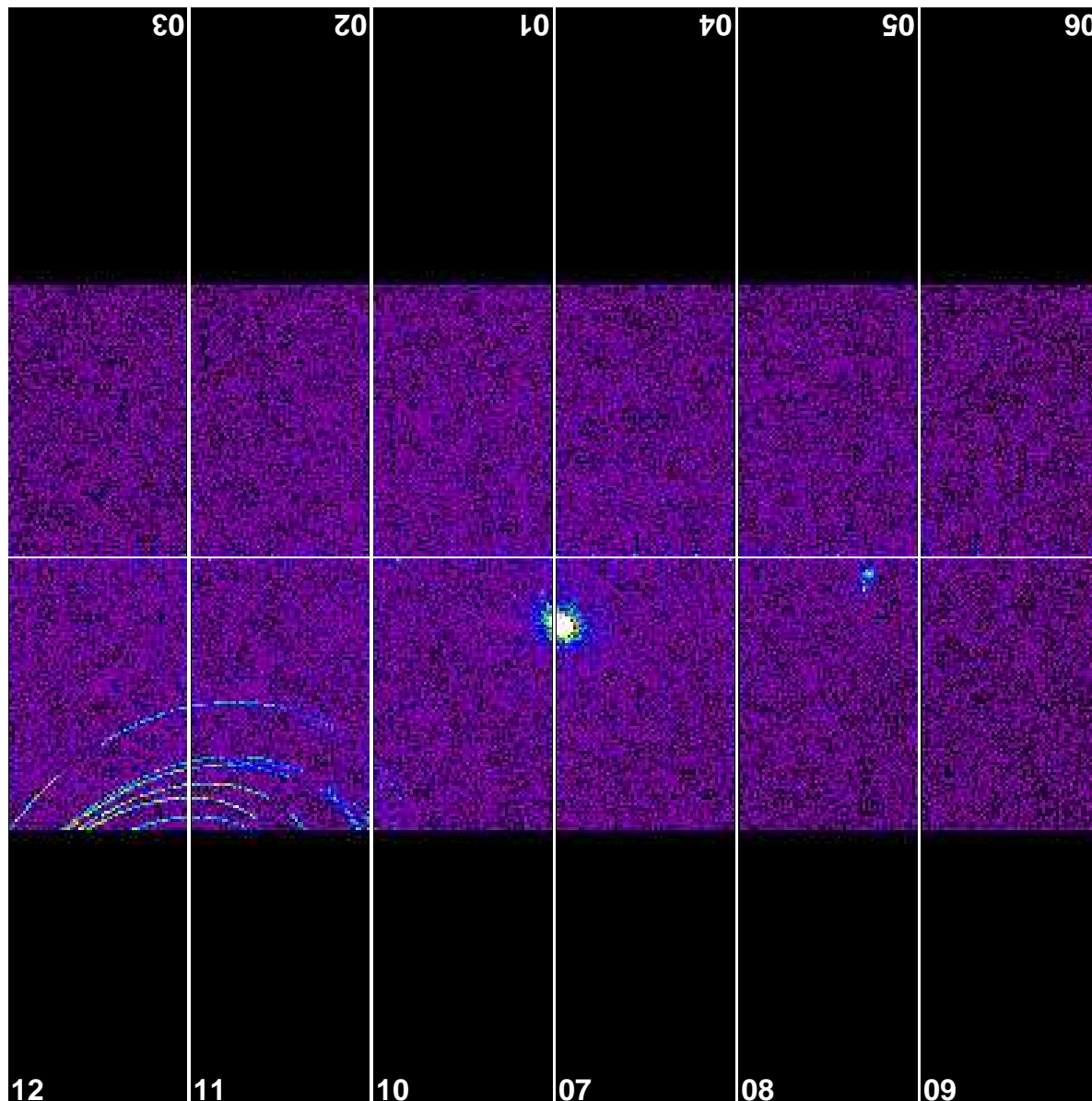
EPIC-pn: low-energy background (FM1, 6 – 40 adu)



EPIC-pn: low-energy background (FS, 16 – 40 adu)



EPIC-pn: background from outside the FOV: LW mode



- only parts of CCD used
- integration of 100 rows, 45.14 ms
- fast shift of window area toward CAMEX, in 0.072 ms
- read-out as in full frame mode, 2.45 ms
- fast shift of read-out area

