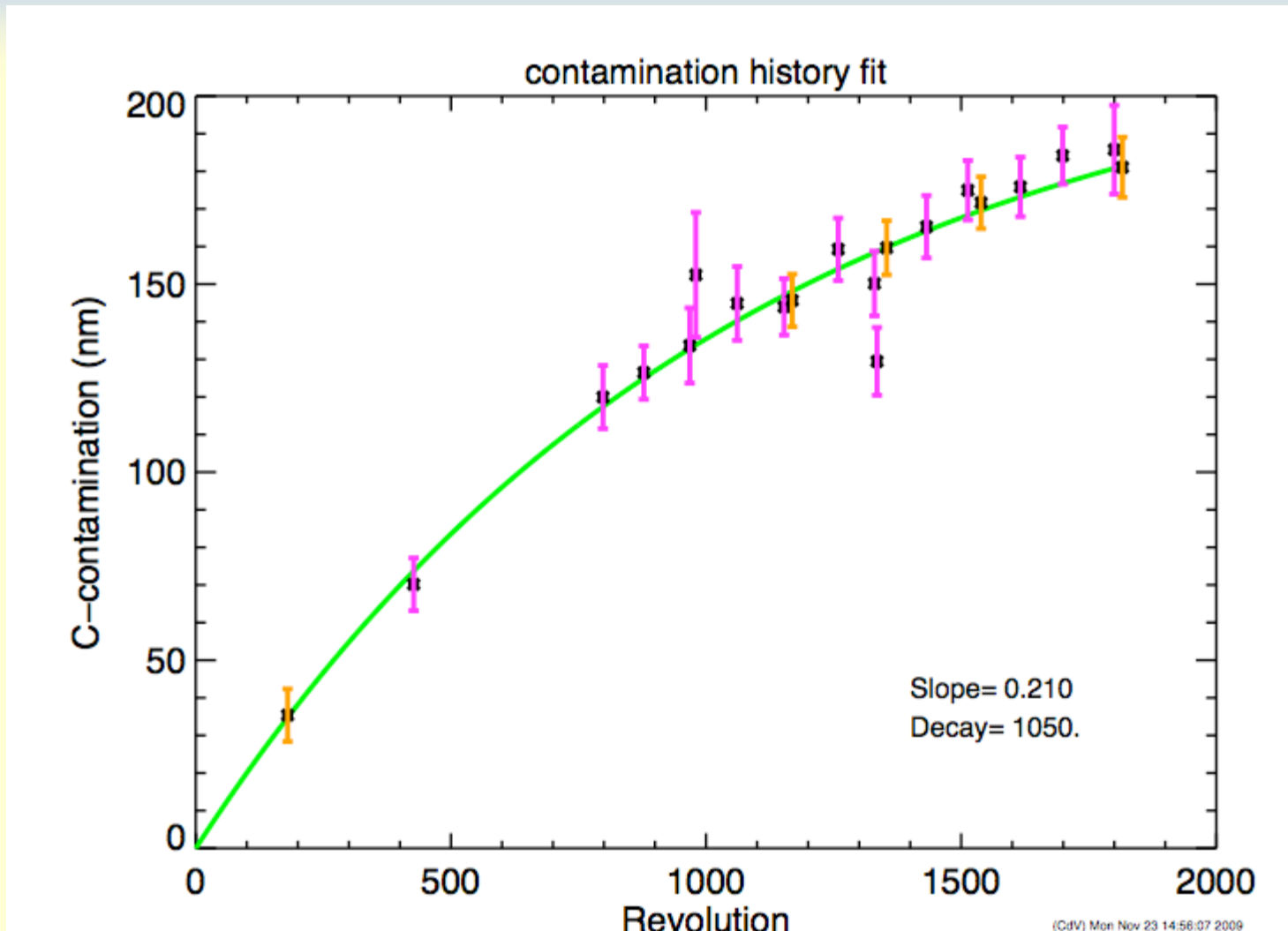


The RGS calibration in 2010

- The low-resolution RGS effective-area model
 - Δ RXJ1856+3754 \Rightarrow contamination(t)
 - power-law*ISM blazar Mkn421 \Rightarrow area(λ)
 - EPIC comparison \Rightarrow rectification
 - XCal archive
- The high-resolution RGS
 - systematic $\Delta\lambda$ (SAA) \Rightarrow gratings tilt
 - LSF \Rightarrow scattering from gratings and telescopes
- Recent operational OoLs
 - 1836_0606280101 RGA temperature
 - CCF fix
 - 2010-02-27 RGS1 +5V current
 - on-board software problem
 - RGS1 restarted normally (for U Sco)
- RGS in the SAS
 - λ -spectra by default

SRON : Jelle Kaastra, Jan-Willem den Herder, Cor de Vries, Ton Raassen, Frits Paerels (Columbia)
ESAC : Maria Diaz Trigo, Carlos Gabriel, Charo Gonzalez-Riestra, Aitor Ibarra, Ricardo Perez, Andy Pollock

RGS contamination history



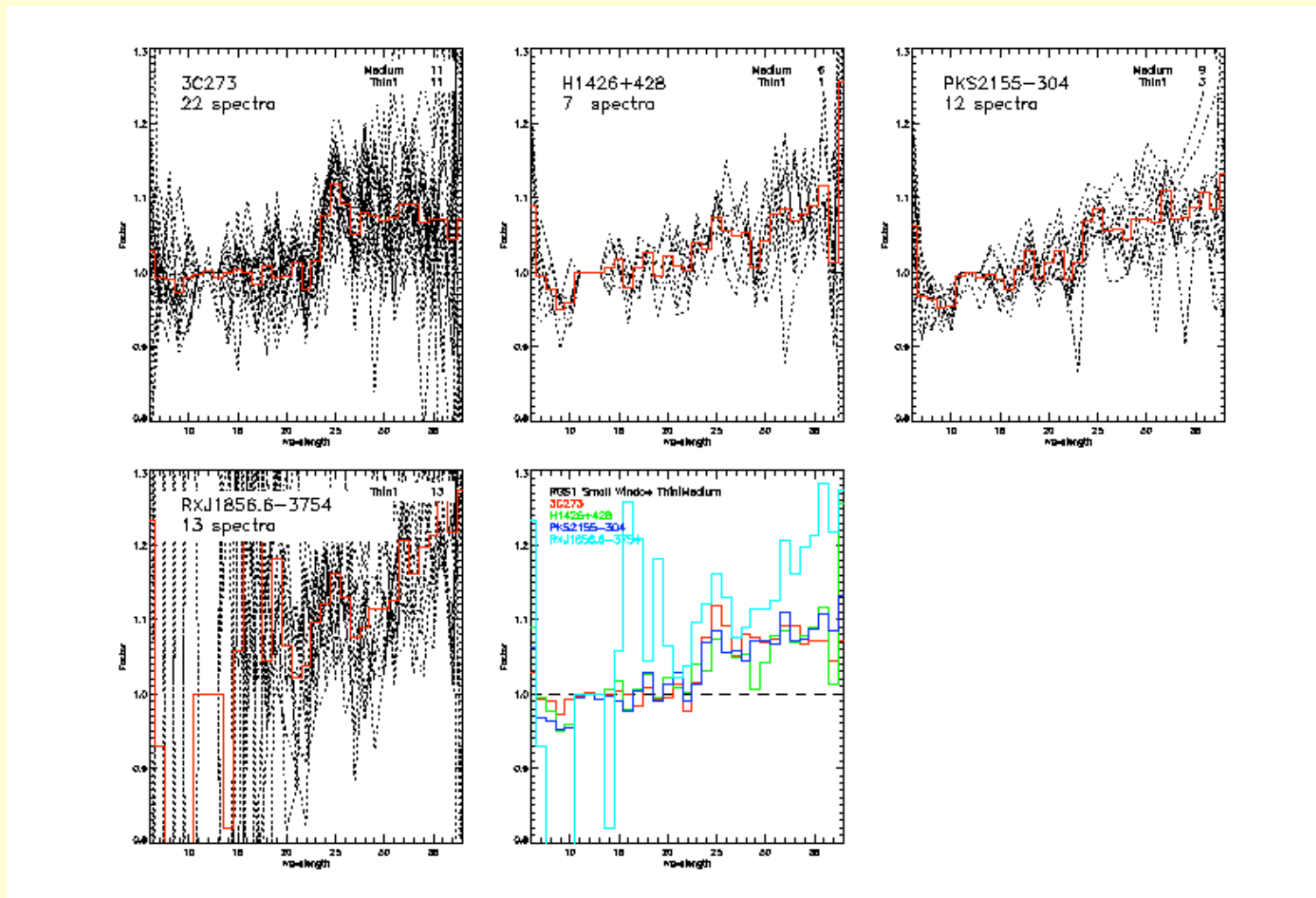
RGS rectification for XMM UG

Action 2009-05-07/03: The Instrument Teams should establish a time epoch-dependent fudge function for the RGS effective area such that the joint analysis of RGS and EPIC data is possible. Results of this effort should be presented at the next UG meeting in 2010 with the aim to make it available to the general user after the review.

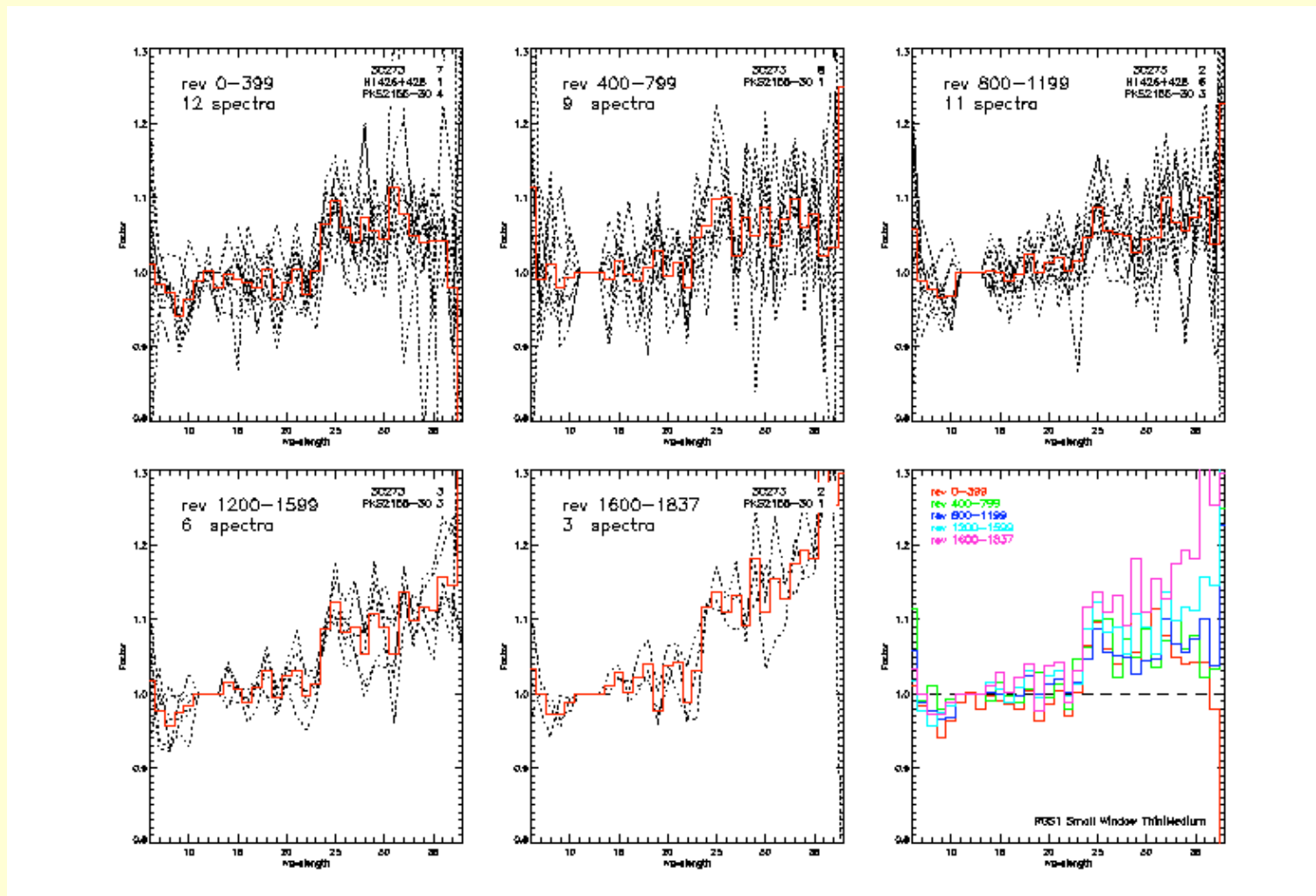
This action item shall not prevent the instrument teams to continue their studies of the cross-calibration. It shall be a SAS 'working package' for the users allowing them simultaneous fits when needed. In any case, remaining uncertainties in the calibration will need to be well and clearly documented.

- XCal SAS v9.0.0 sample of 106/148 spectra and models
 - 3C273, PKS2155-304, H1426+428, PKS0548-322, Mkn501, Mkn180, 1H1219+301
 - RXJ1856-3754
 - SNR 1E0102-7219
 - No other extended sources
- Pile-up
- XCal methods
 - chisq
 - 25 counts per bin
 - XCal parameter constraints
- Rectify with Xspec user model rgsrectify
 - 33 rectification factors {R6, R7, R8, R9,....., R35, R36, R37, R38}

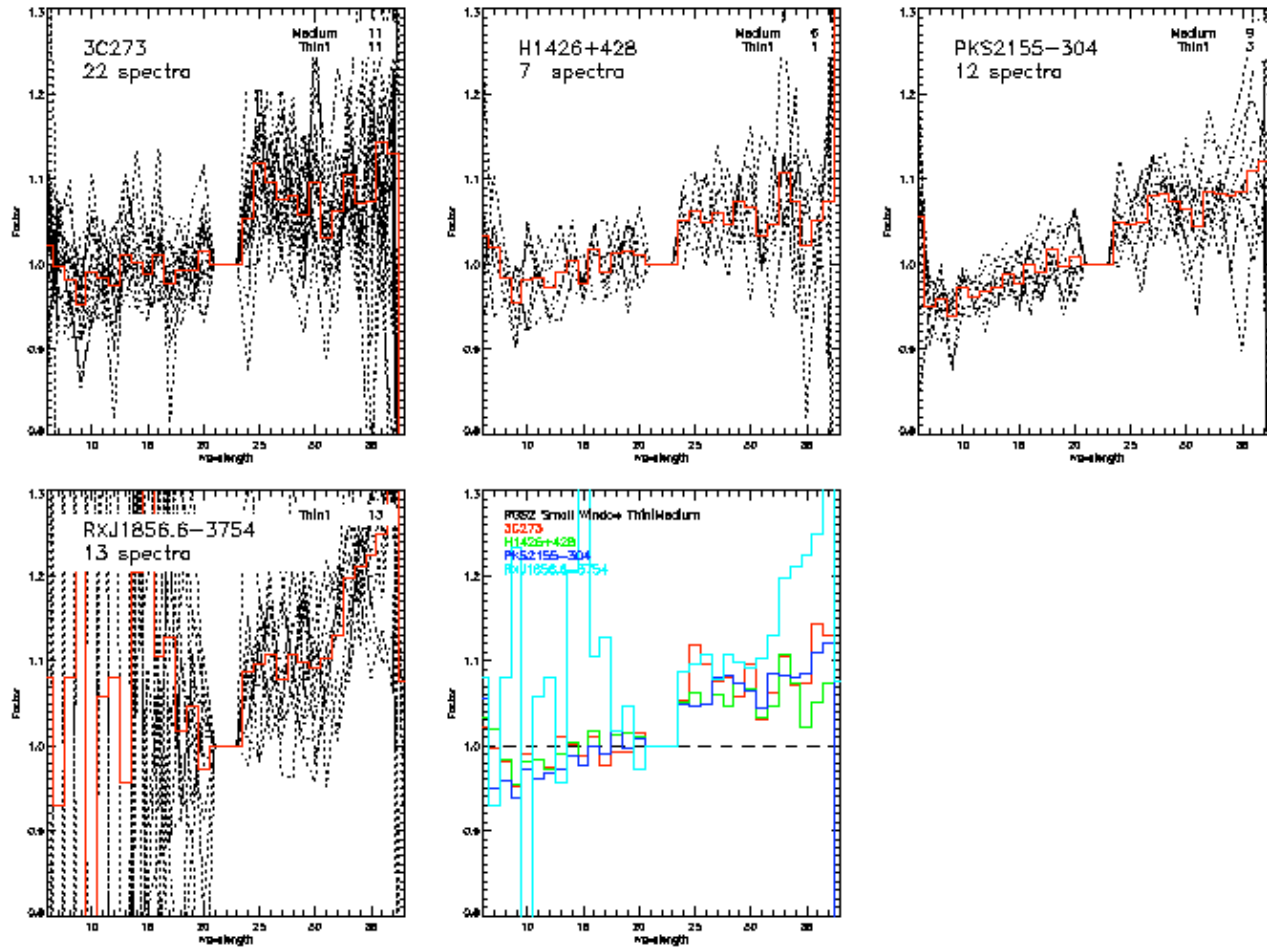
Factor for RGS1 wrt to EPIC-pn SmallWindow Thin&Med filter: by target



Factor for RGS1 wrt to EPIC-pn SmallWindow Thin&Med filter: by time



Factor for RGS2 wrt to EPIC-pn SmallWindow Thin&Med filter: by target



Factor for RGS2 wrt to EPIC-pn SmallWindow Thin&Med filter: by time

