

ACTIVITIES OF THE NON-THERMAL SNR WG [1]

- Cross-calibration paper on G21.5-0.9 (Tsujiimoto et al., A&A) published successfully

**Cross-calibration of the X-ray Instruments
onboard the Chandra, INTEGRAL, RXTE, Suzaku, Swift, and
XMM-Newton Observatories using G21.5–0.9[★]**

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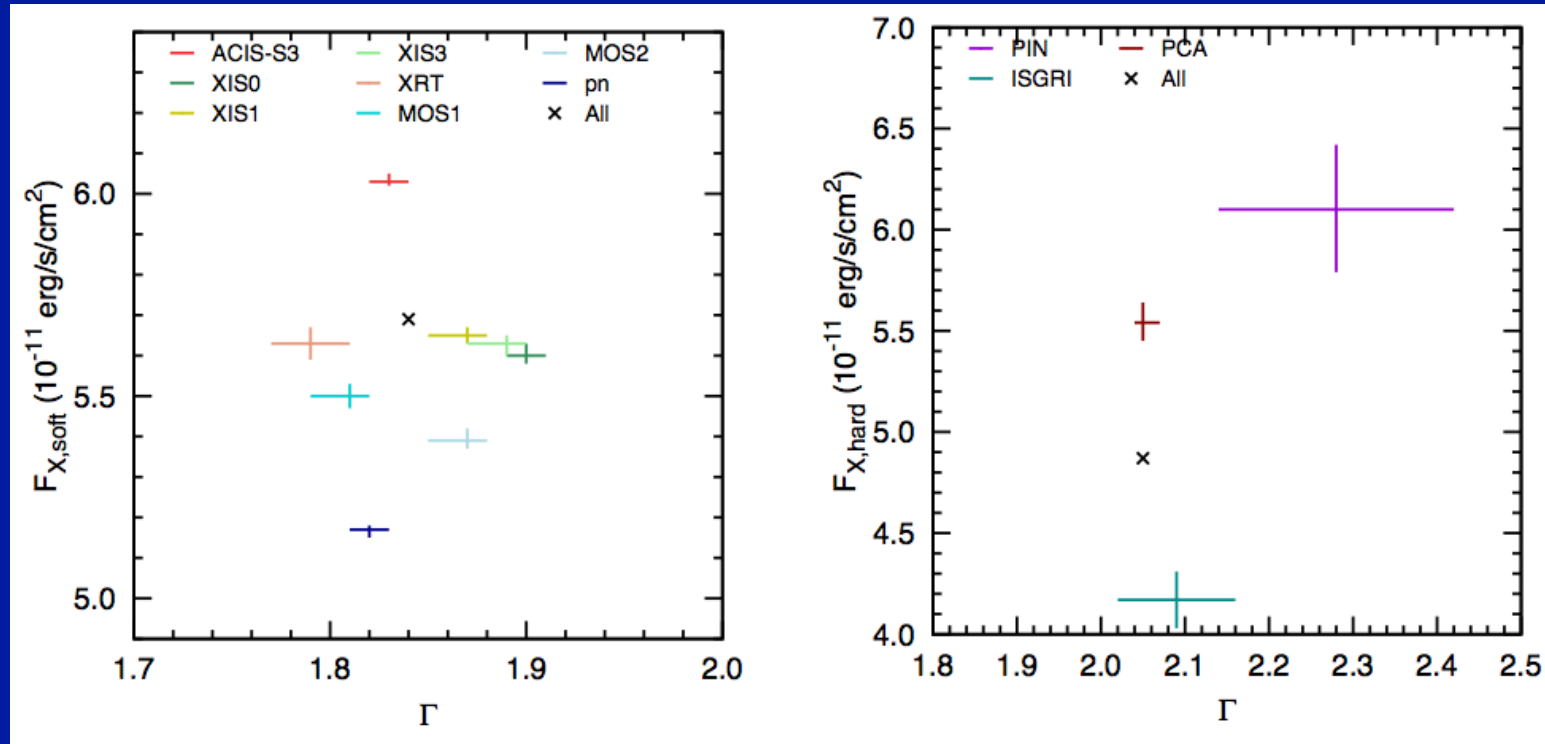
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- On January, M. Tsujimoto asked to leave the group leadership temporarily (due to the Astro-H CDR)

G21.5-0.9 WITH SOFT & HARD BANDS



Scatter plot of PL fit parameters for *soft-band* and *hard-band* instruments

ACTIVITIES OF THE NON-THERMAL SNR WG [2]

- Current main activity is on Crab cross-calibration
- Goal: $\sim 1\text{?}-500$ keV
- Instruments: PCA, BAT, IBIS, SPI, Suzaku/PIN, XMM/EPIC-pn, XMM/RGS, (Chandra/LETGS), MAXI/GSC
- A first draft is close to completion, results from 4 instruments highlighted in red

Cross calibration of hard X-ray instruments using the high energy source in the Crab Nebula

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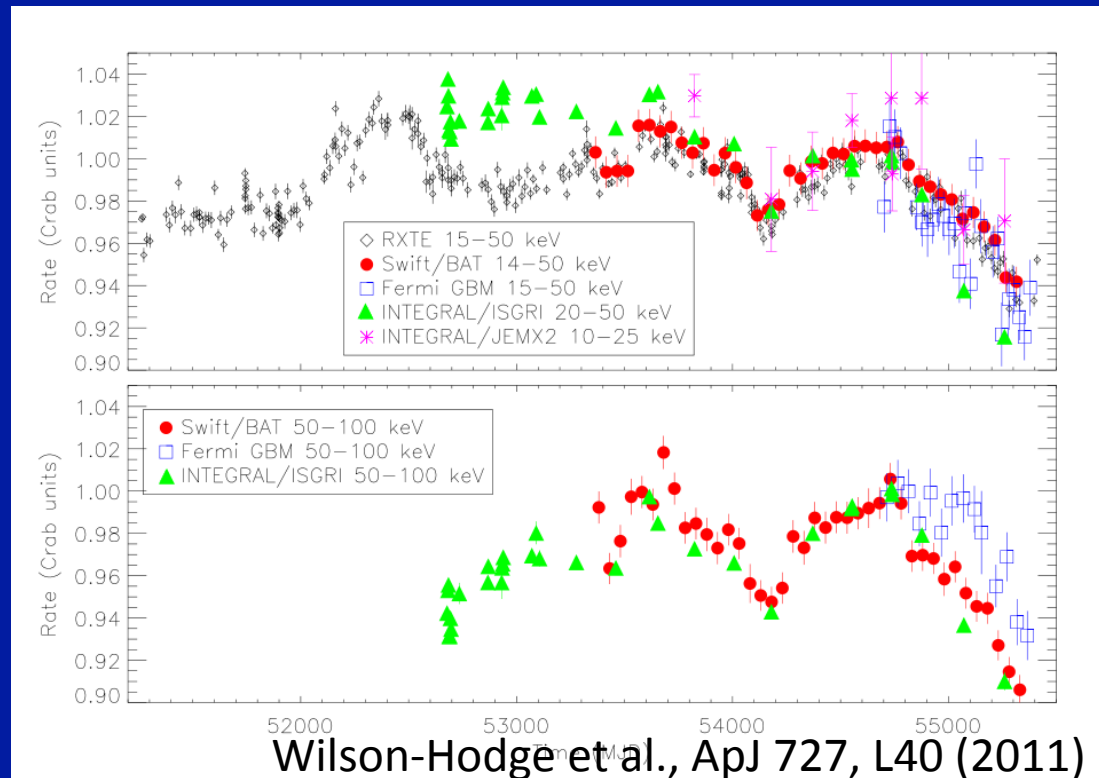
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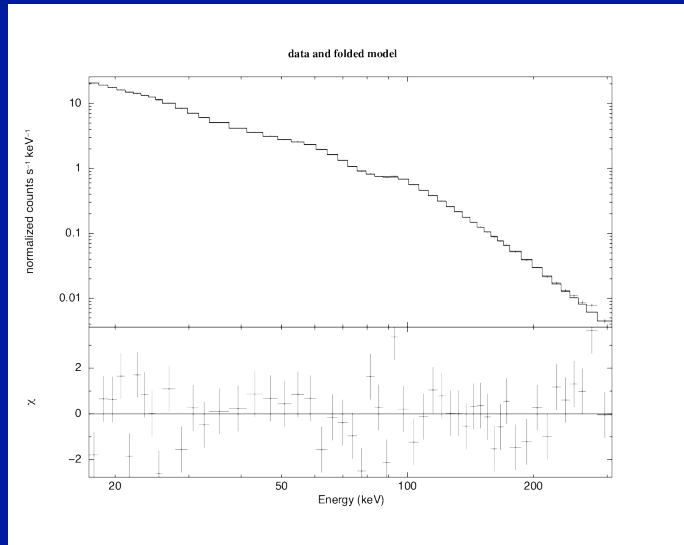
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FLUX VARIABILITY OF THE CRAB NEBULA



Cross-cal picture complicated by the recent detection of variability: need to provide spectra as far as possible in common epochs

SPECTRAL FITS



IBIS

Start & End Time (UT):

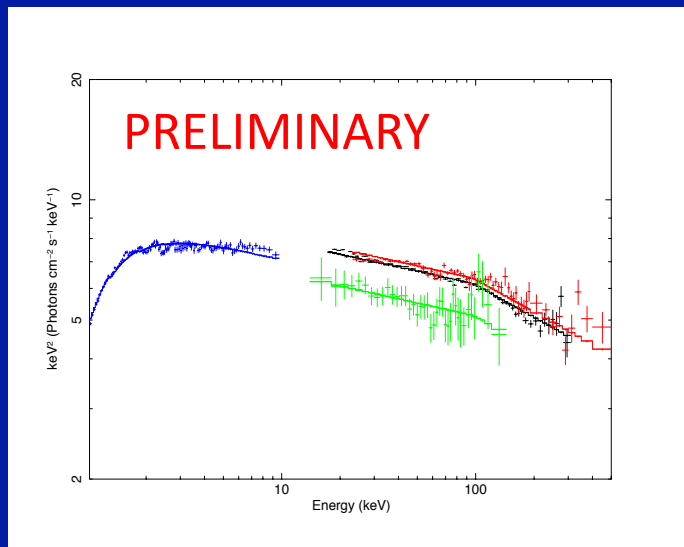
20-03-2007, 29-08-2009

Elapsed time: 77.15 Ms

Effective exposure time: 483.562 ks

Data selected for source offset < 4.5 deg

Red.CHISQ=1.73 (1% syst.)



4 instruments model fit with broken PL

- SPI
- IBIS
- BAT
- EPIC-pn

TO PROGRESS

- Updated workplan (proposal to be discussed at the WG meet)
- both 1st draft and protocol ready by end of April (will appear in IACHEC Wiki)
- **Suzaku & RXTE** spectra to be included
- Open issue about **XMM/RGS** data
- Possibly involve other instruments?