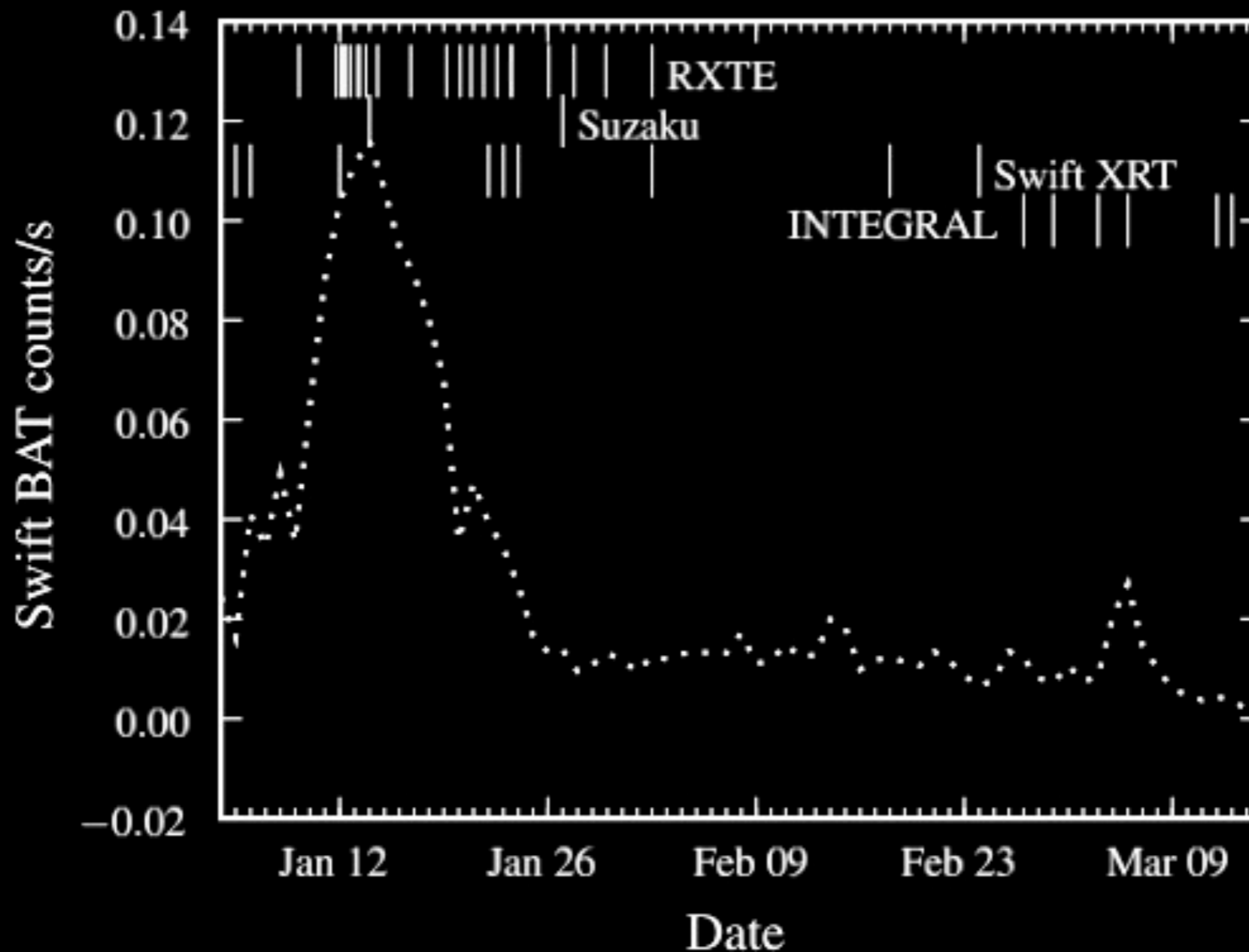


not so...

Recent observations of IA 1118-61 with RXTE.

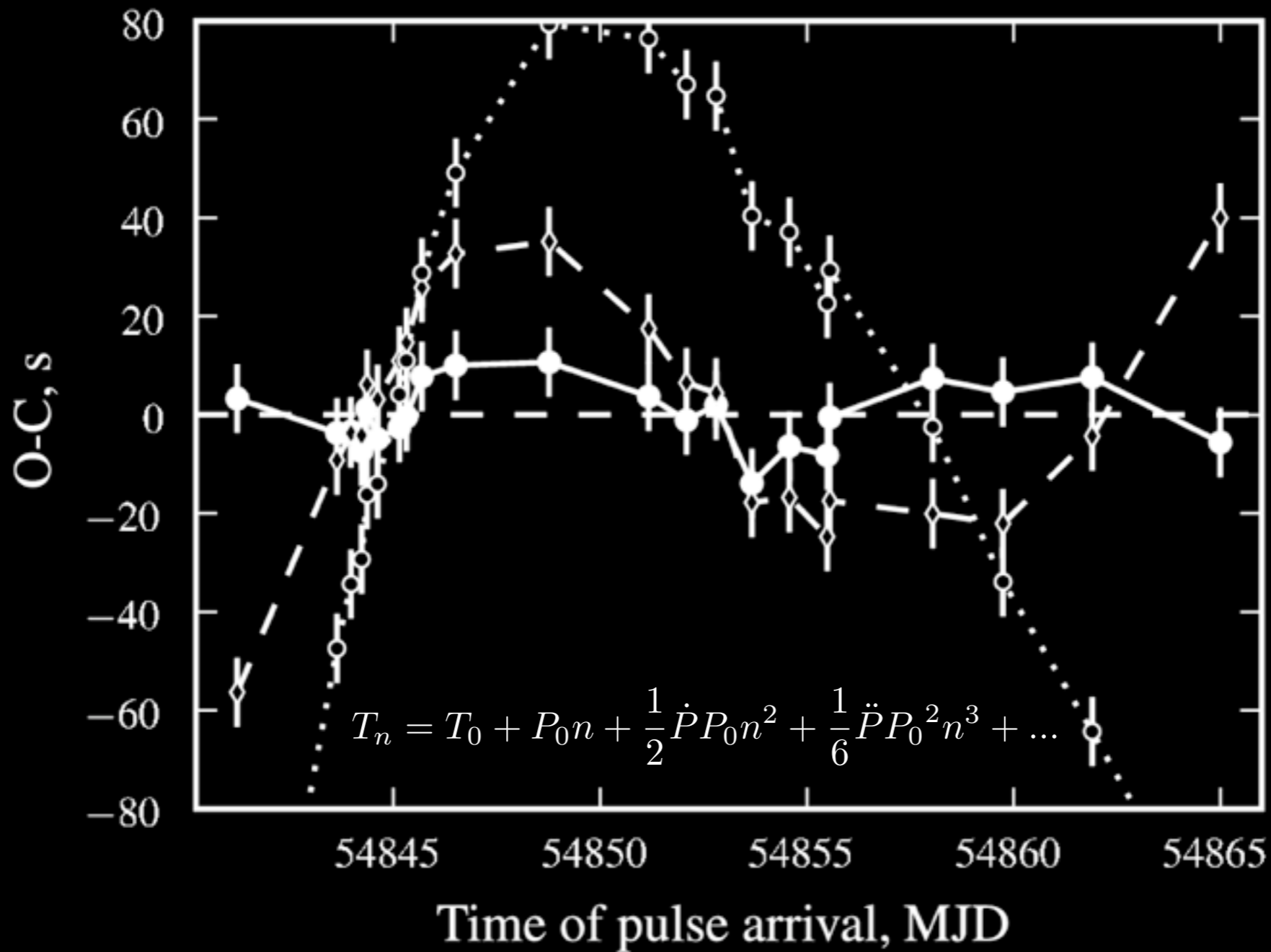
V. Doroshenko, S. Suchy, A. Santangelo, I. Kreykenbohm, R. Staubert, R. Rothschild, K. Pottschmidt, J. Wilms

Outburst overview:



- First outburst since 1992
- First broadband observations (RXTE, Suzaku, INTEGRAL)
- First CRSF detection
- First Fe-line detection
- Period and derivative measurements (RXTE)

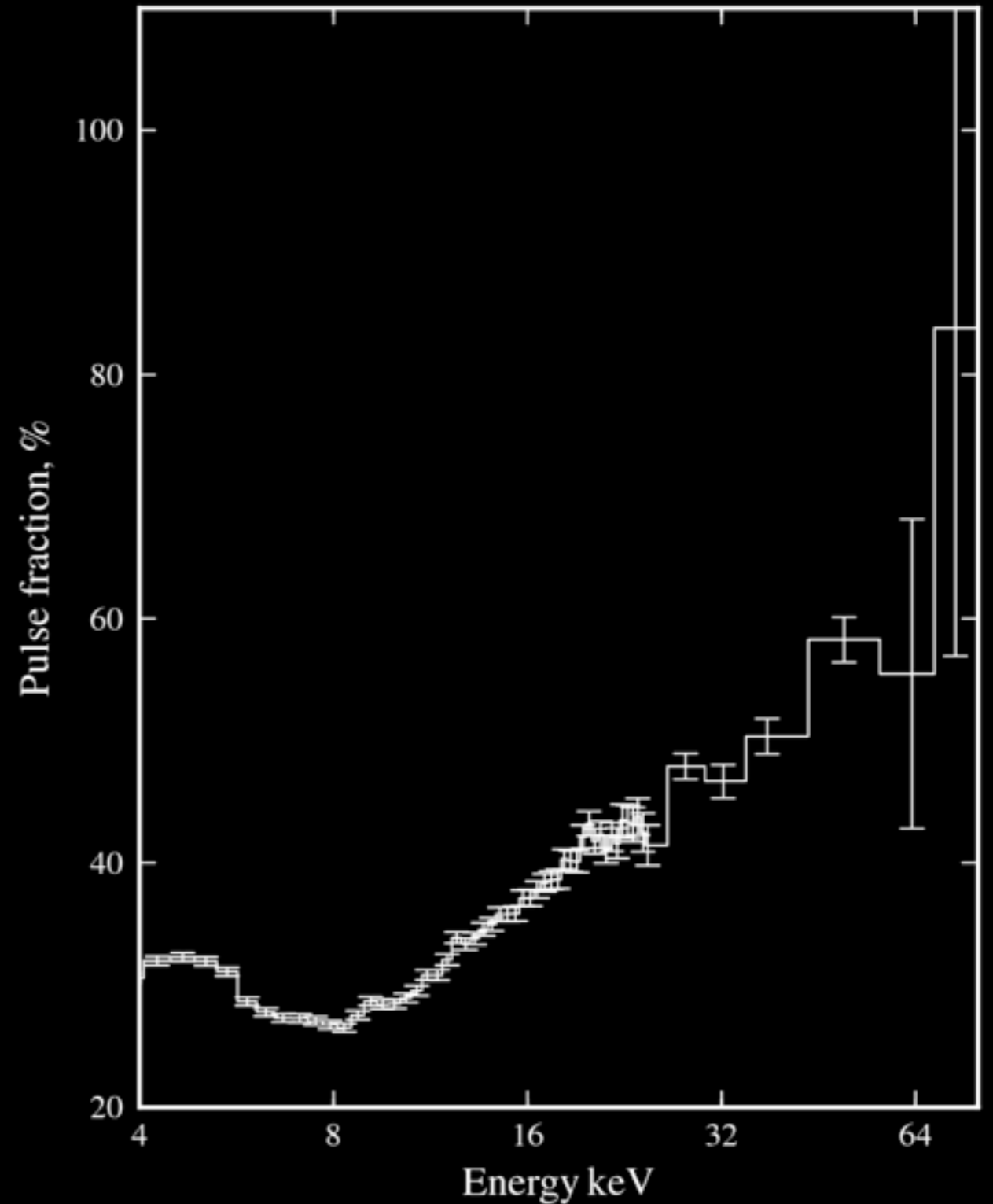
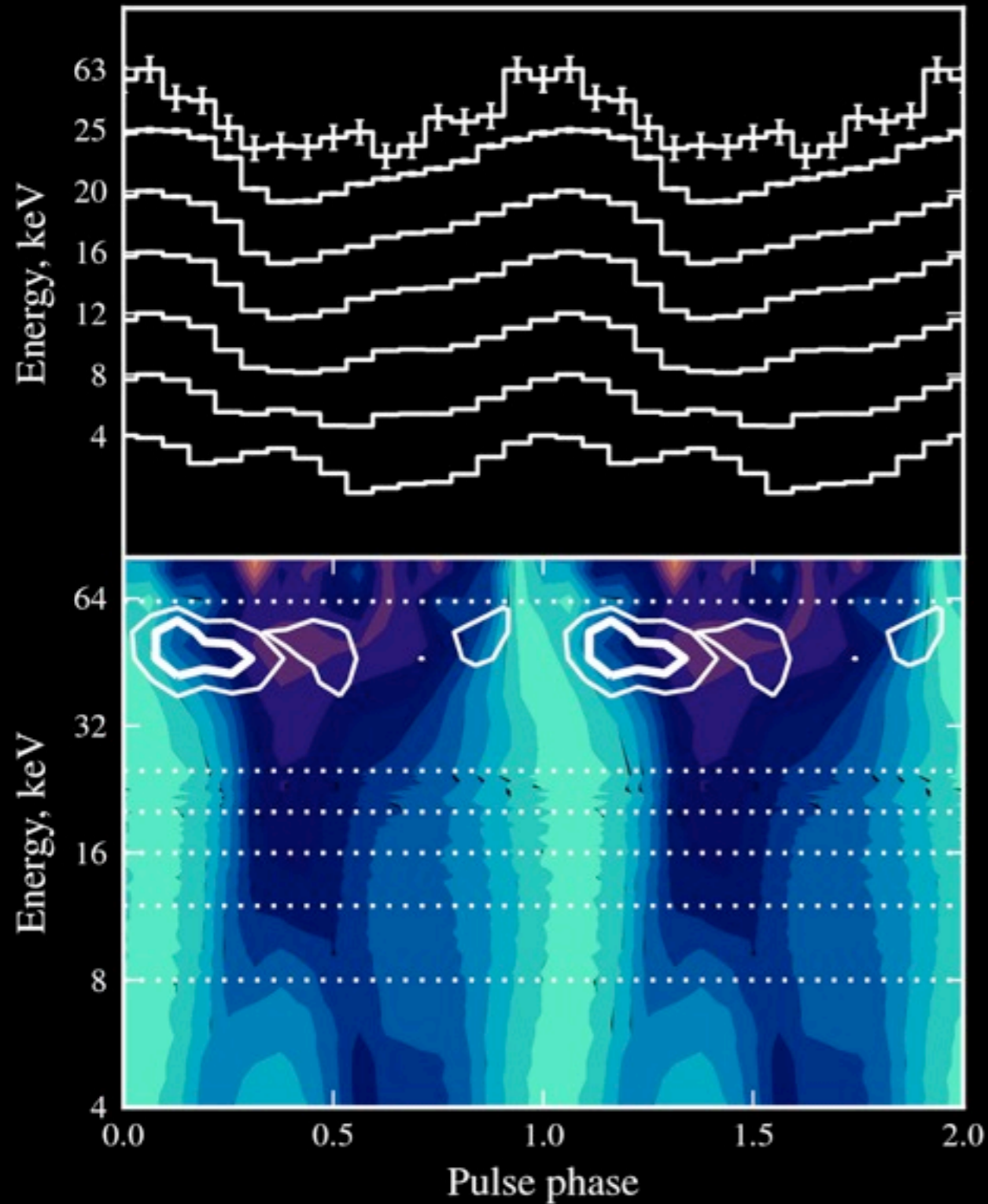
Coherent pulse timing (phase connection):



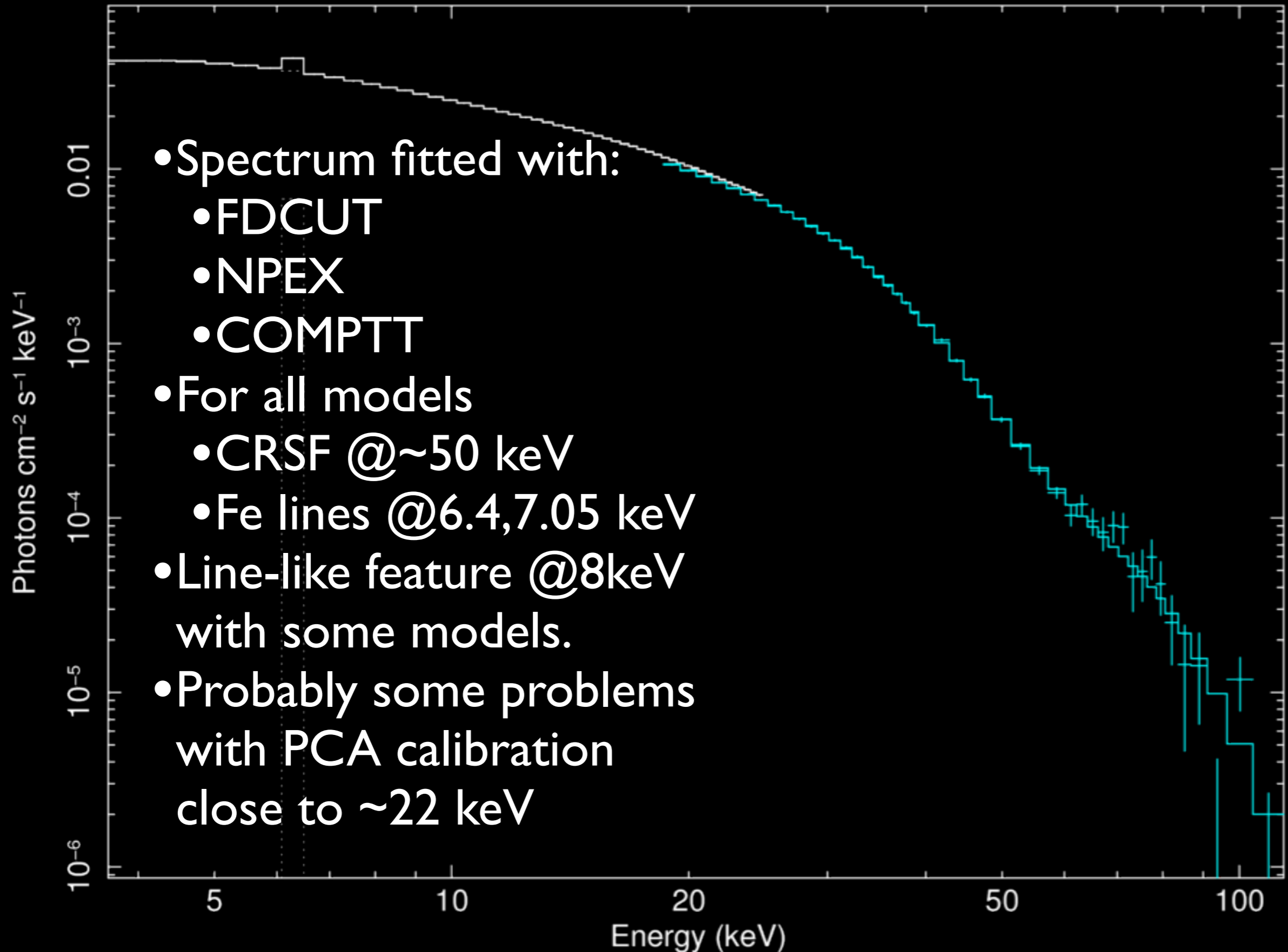
$$P_{\text{spin}} = 407.719(9) \text{ s}, \quad \dot{P}_{\text{spin}} = -4.6(2) \times 10^{-7} \text{ s s}^{-1}, \quad \ddot{P}_{\text{spin}} = 2.8(2) \times 10^{-8} \text{ s s}^{-2}$$

~3x faster spin-up and ~3x more flux with respect to 1992 outburst observed with BATSE.

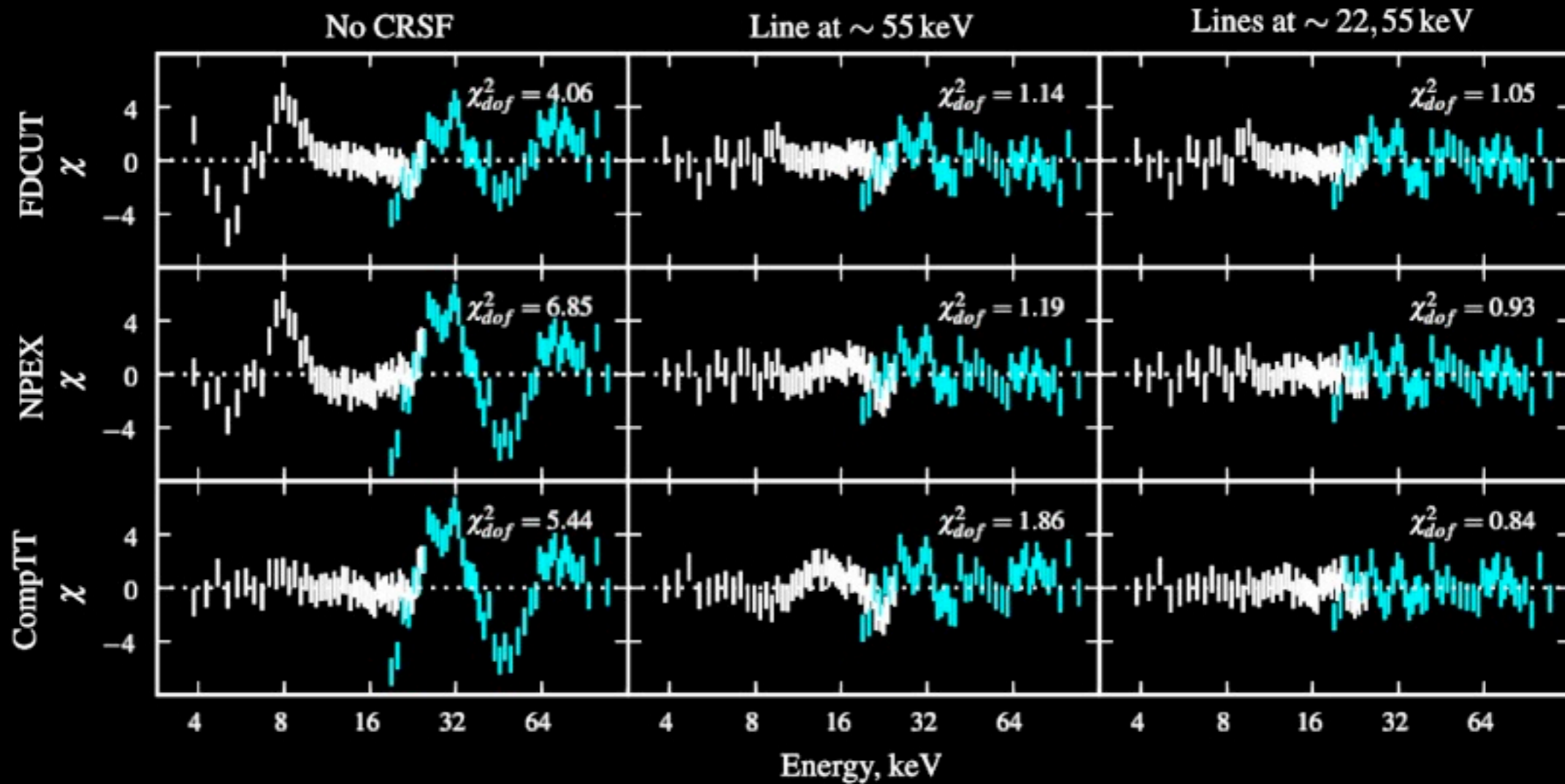
Pulse profile energy dependence:



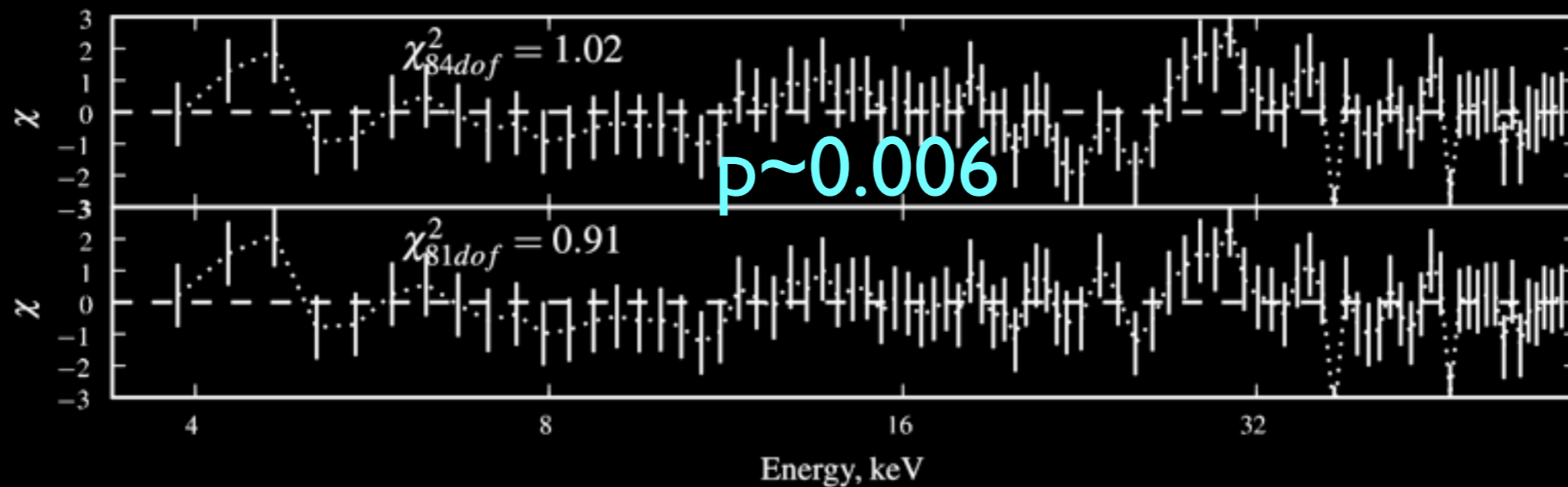
Spectral analysis I:



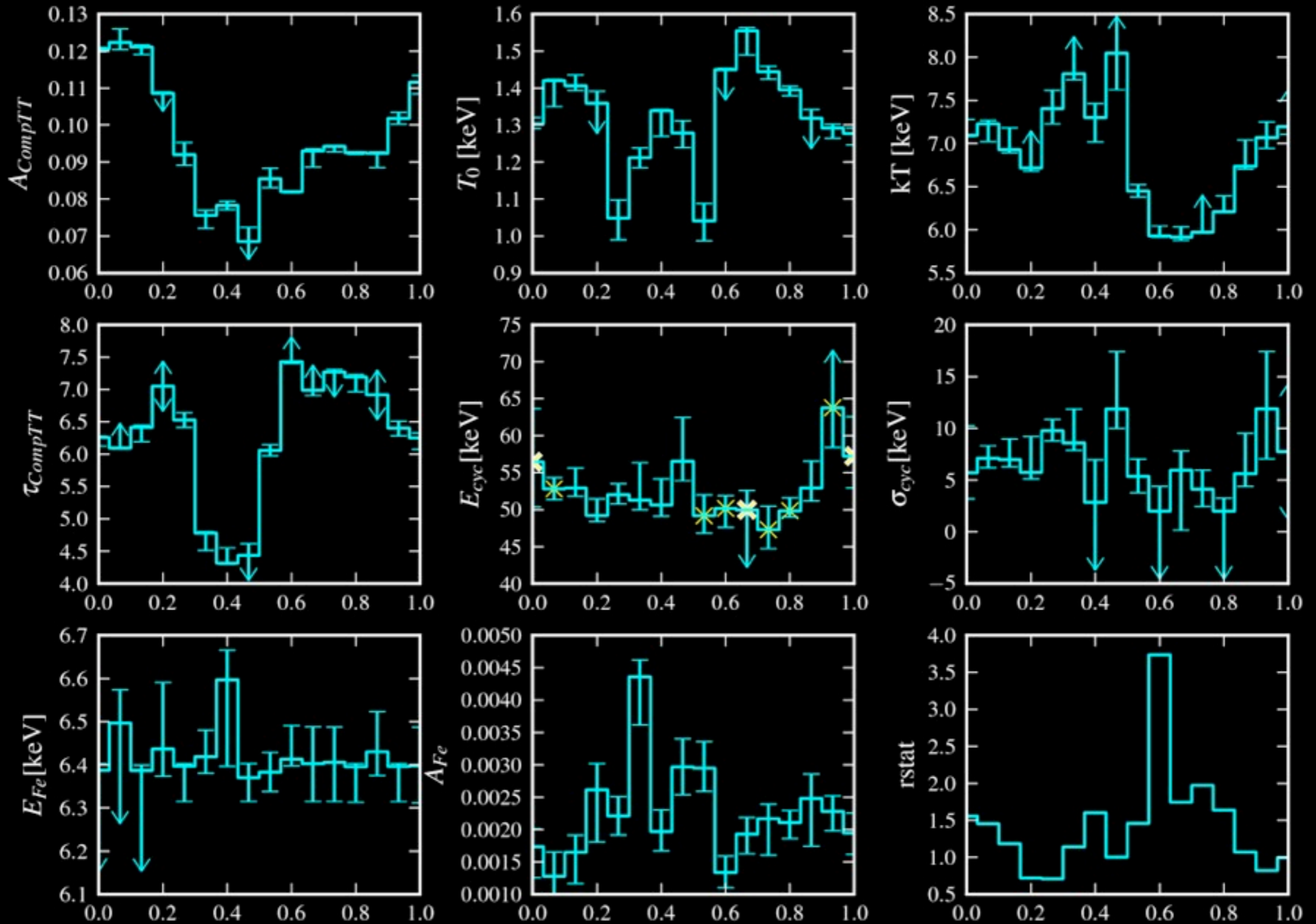
Spectral analysis I I:



Crab (P94802)



Spectral analysis III:



Conclusions:

- Pulse period and a strong spin-up measured again.
- The spin-up rate seem to scale with flux when comparing with 1992 outburst
- Pulse profiles reveal complicated energy dependence
- The broadband spectrum measured for the first time
- The CRSF with energy ~ 50 keV discovered
- Fe-line observed for the first time in the source's spectrum
- The results agree with Suzaku observations (S. Suchy)
- Phase-resolved analysis is ongoing