

Broad band spectrum of XTE J1550-564 during its 2003 outburst

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The source was discovered in Sep. 1998

Very intense flare in Sep. 1998 (6.8 Crab maximum)

Optical observations -> ~5.3 kpc distance,
10 M_{sun} black hole, inclination $\sim 75^\circ$ (Orosz et al. 2002)

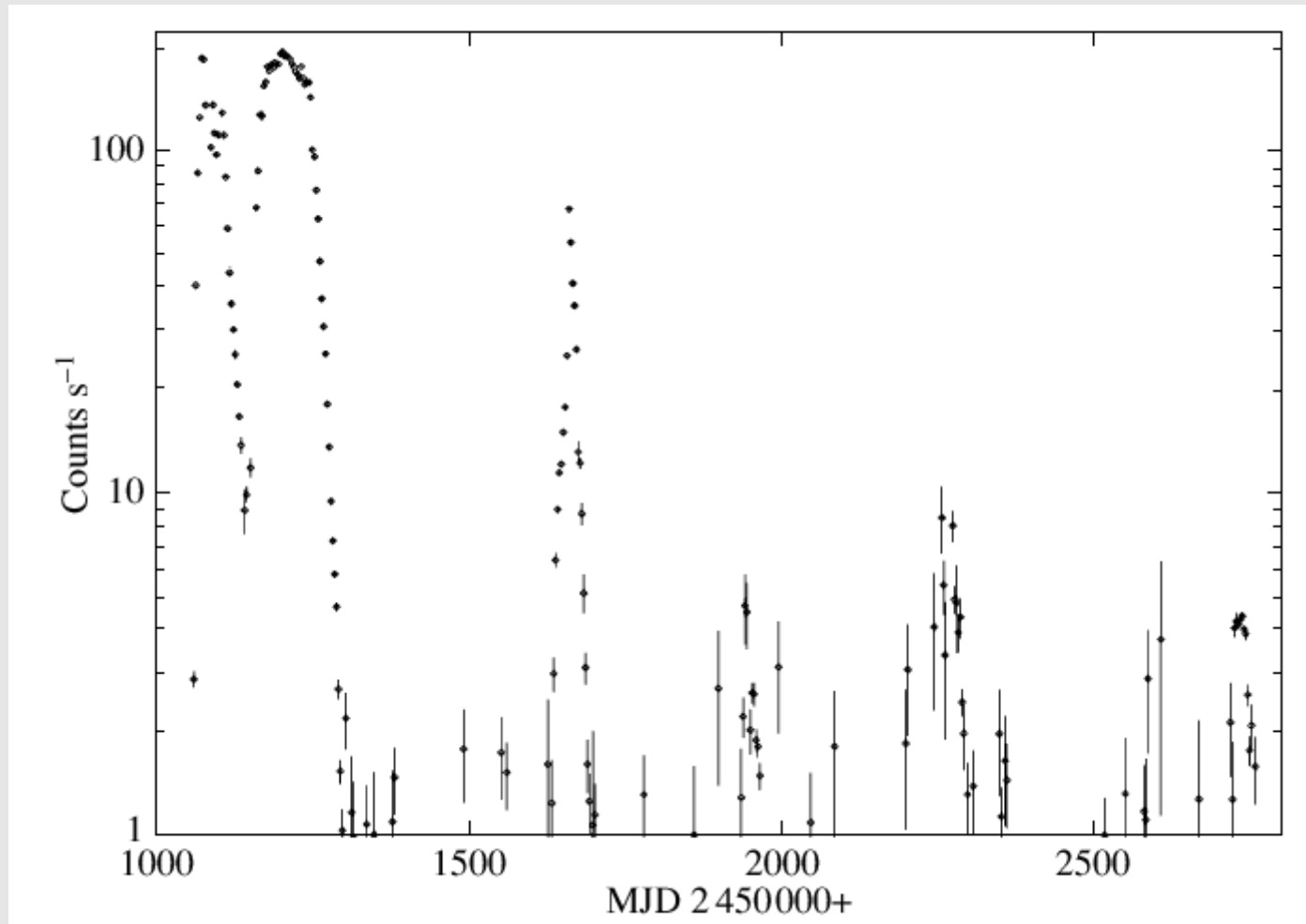
X-ray jets - Corbel et al. 2002

Several more outbursts (2000, 2001, 2002)

Latest outburst - spring 2003

We present here results from INTEGRAL
Core program data

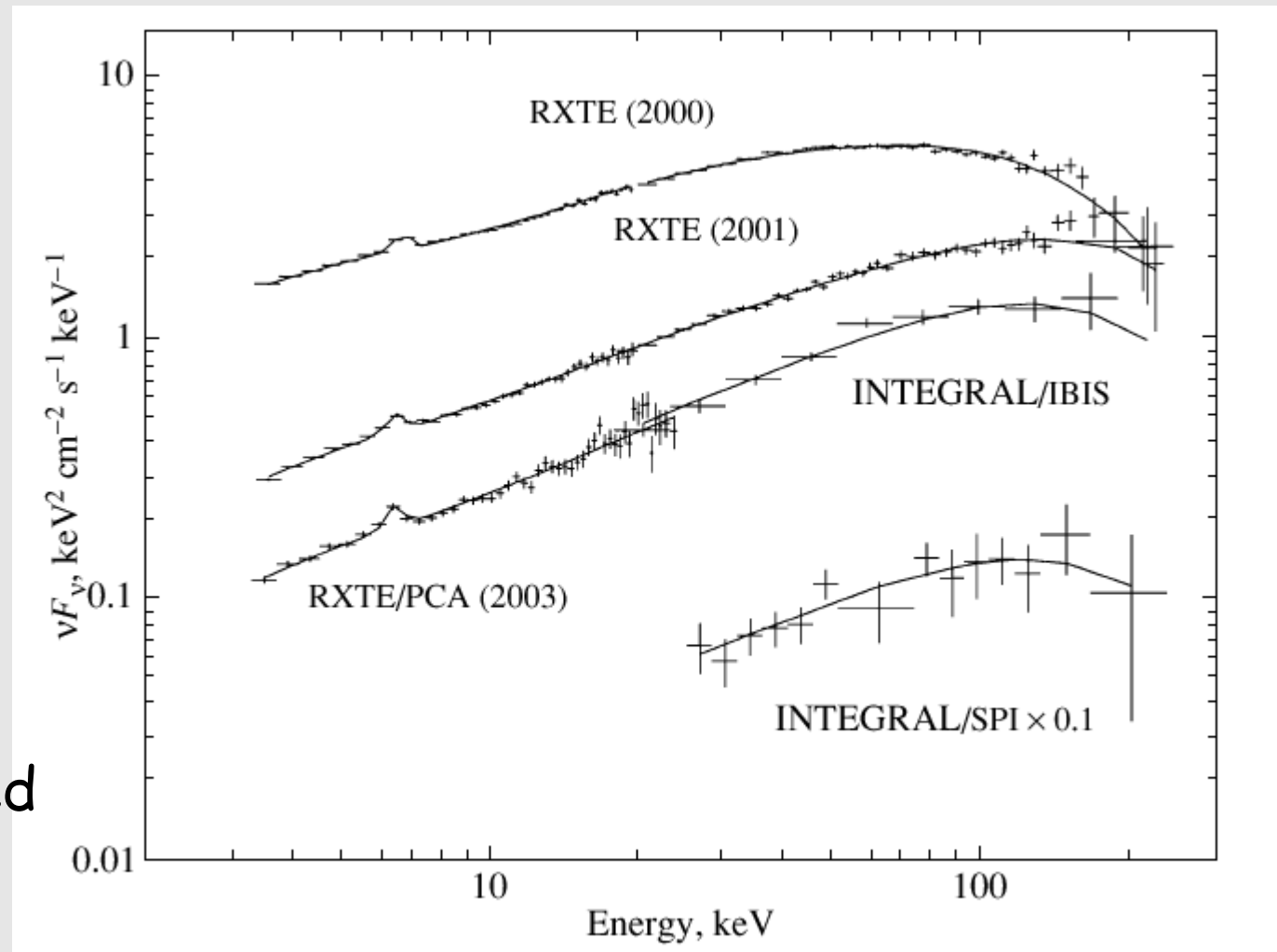
XTE J1550-564 lightcurve since 1998



Spectra of XTE J1550-564

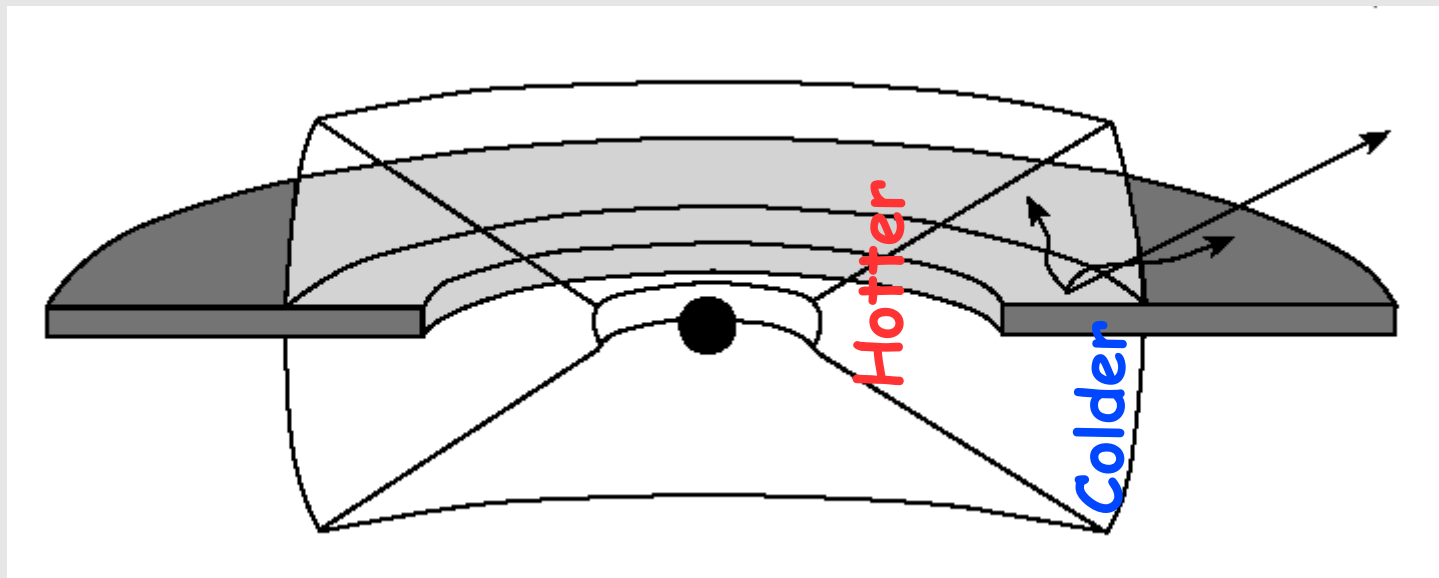
Spectrum has relatively early cutoff
(comptonization $kT \sim 40-50$ keV)

XTE J1550-564 is detected by PICsIT up to $\sim 400-500$ keV.
No hard tail is detected (info of L.Foschini)



Outburst	kT^a , keV	τ^b	$R, \Omega/2\pi^c$	EW_{line}^d , eV	Flux ^e , $\text{erg s}^{-1} \text{cm}^{-2}$	$\chi^2/\text{d.o.f.}$
2003	50 ± 10	3.4 ± 0.9	0.25 ± 0.13	120 ± 30	3.8×10^{-9}	1.20
2001	63 ± 6	2.5 ± 0.4	0.27 ± 0.08	96 ± 25	5.5×10^{-9}	1.16
2000	42 ± 1	2.8 ± 0.2	0.7 ± 0.1	99 ± 20	2.0×10^{-8}	1.6

We propose that low Comptonization temperature in the spectrum of XTE J1550-564 can be result of high inclination



Low inclination - low optical depth, high electron temperatures

High inclination - high optical depth, low temperatures

Long term behavior of XTE J1550-564 is interesting

Every subsequent outburst is weaker than the previous. May be there is a feedback mechanism?

Induced secondary mass outflow?

