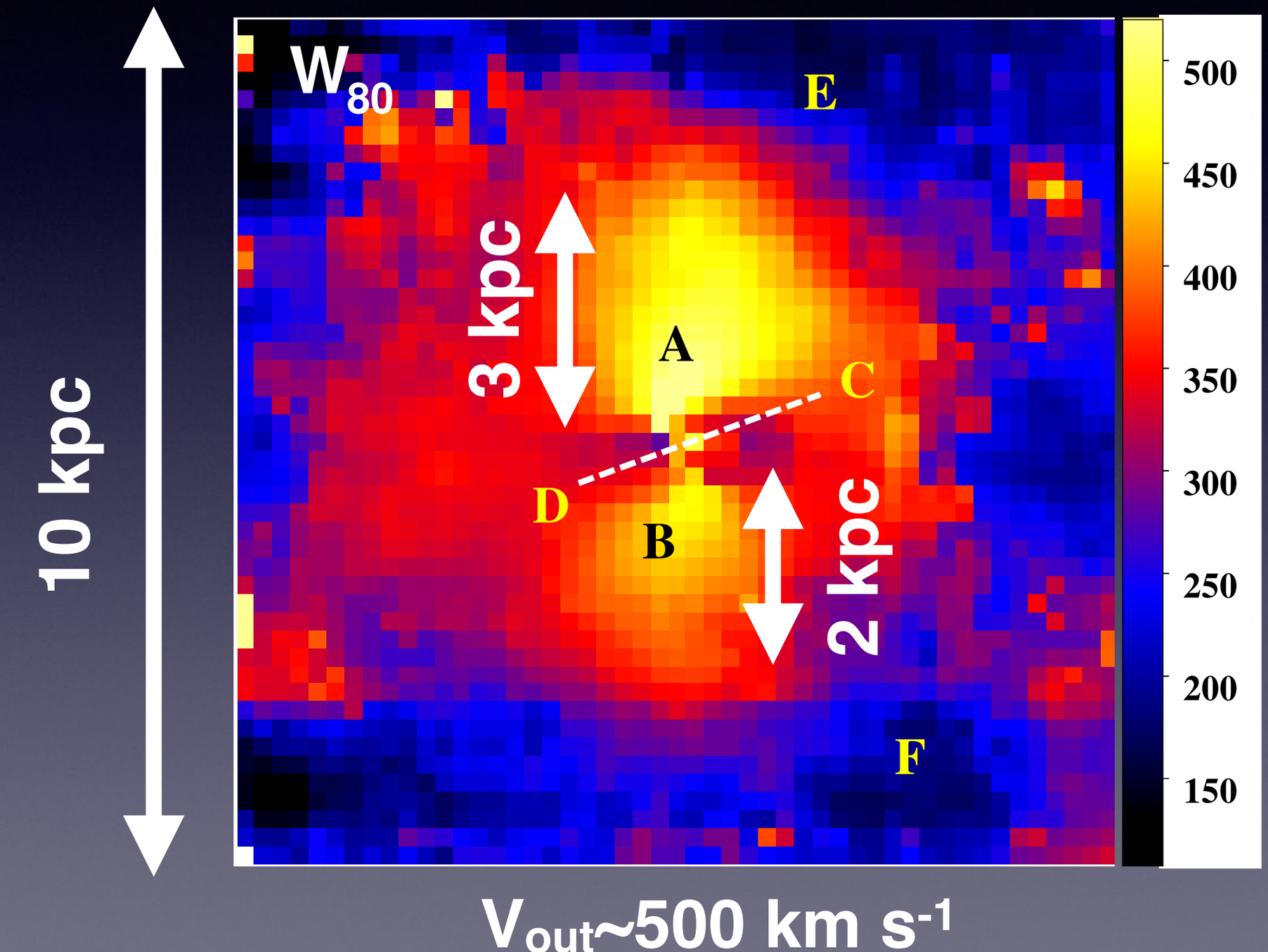
The case of the galactic wind in 1H 0419-577

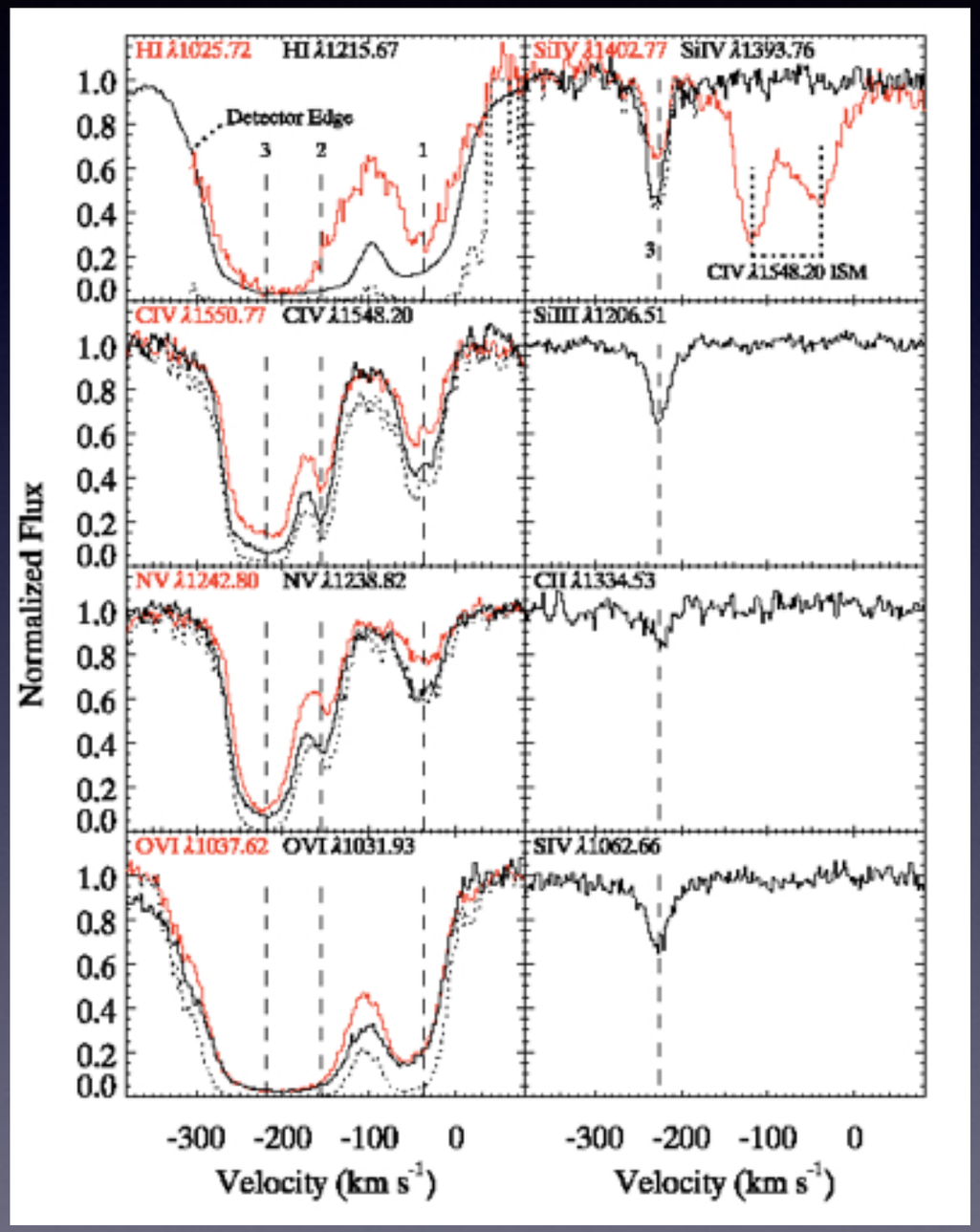
Di Gesu L. Costantini E., Piconcelli, E. et al.

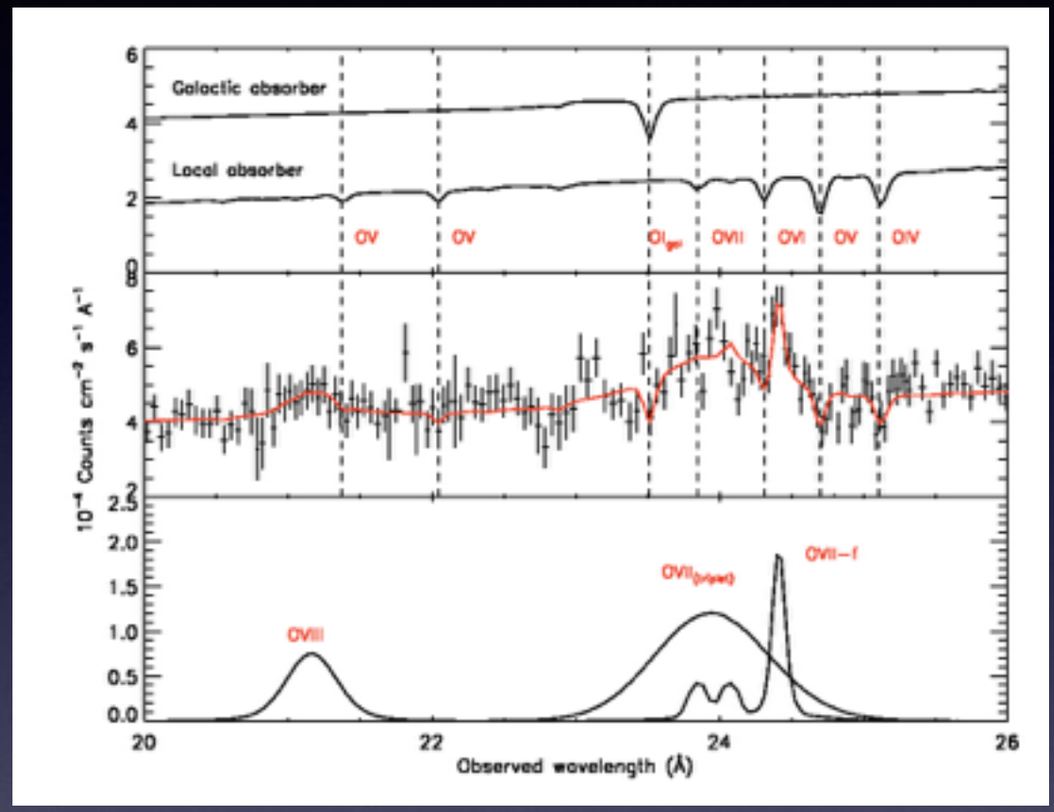
The galactic outflow: [O III]



The galactic outflow: WA

Edmonds et al. 2011

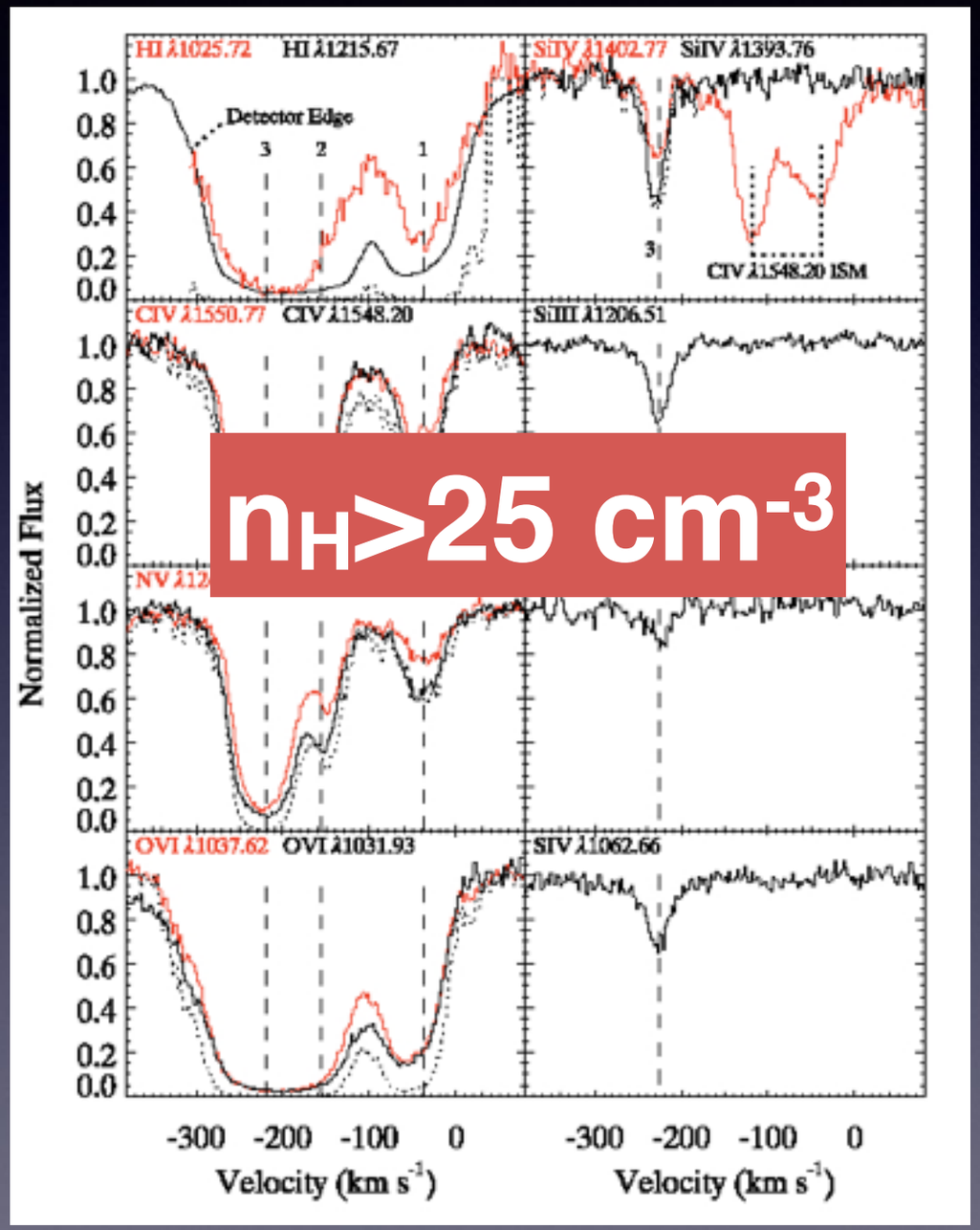




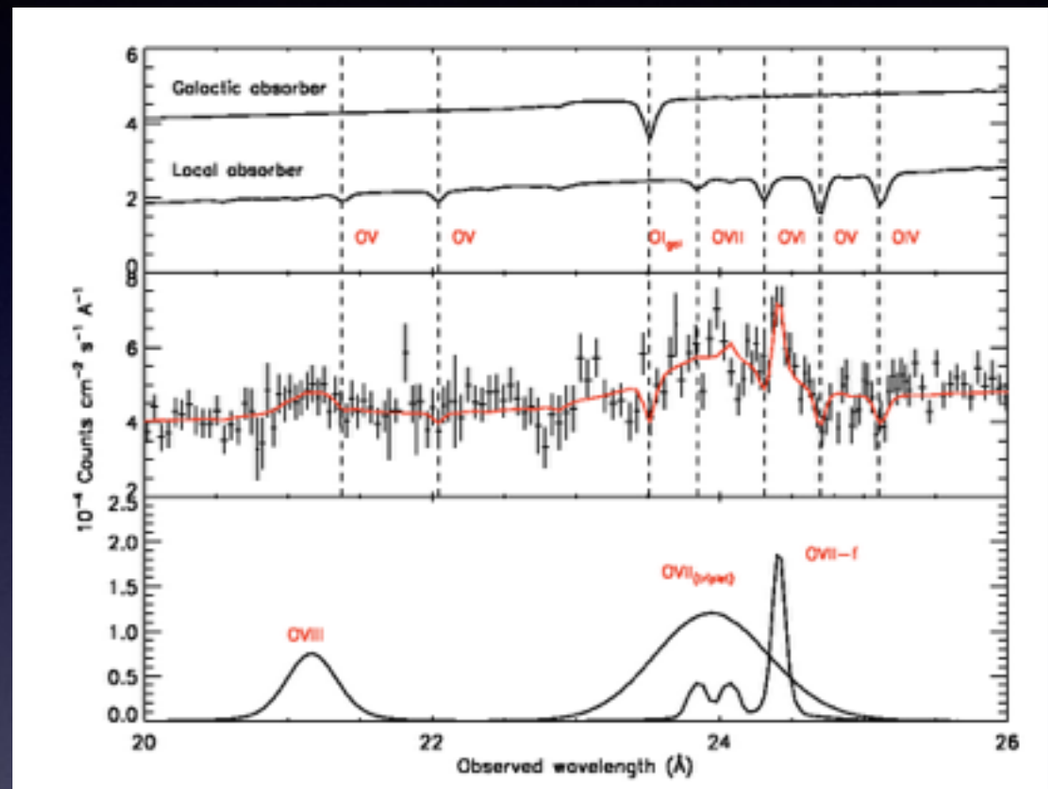
Di Gesu et al. 2013

The galactic outflow: WA

Edmonds et al. 2011



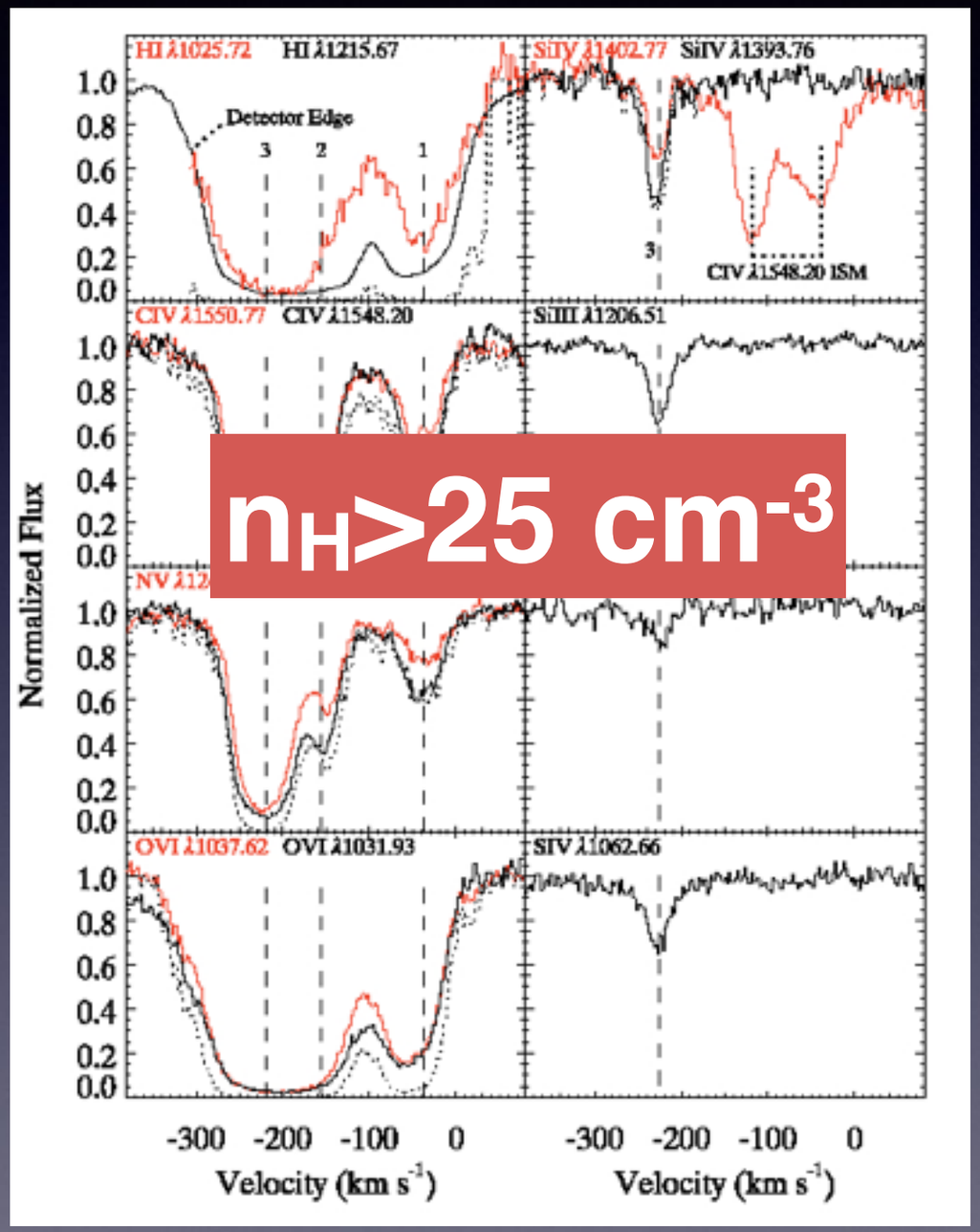
n_H>25 cm^{-3}



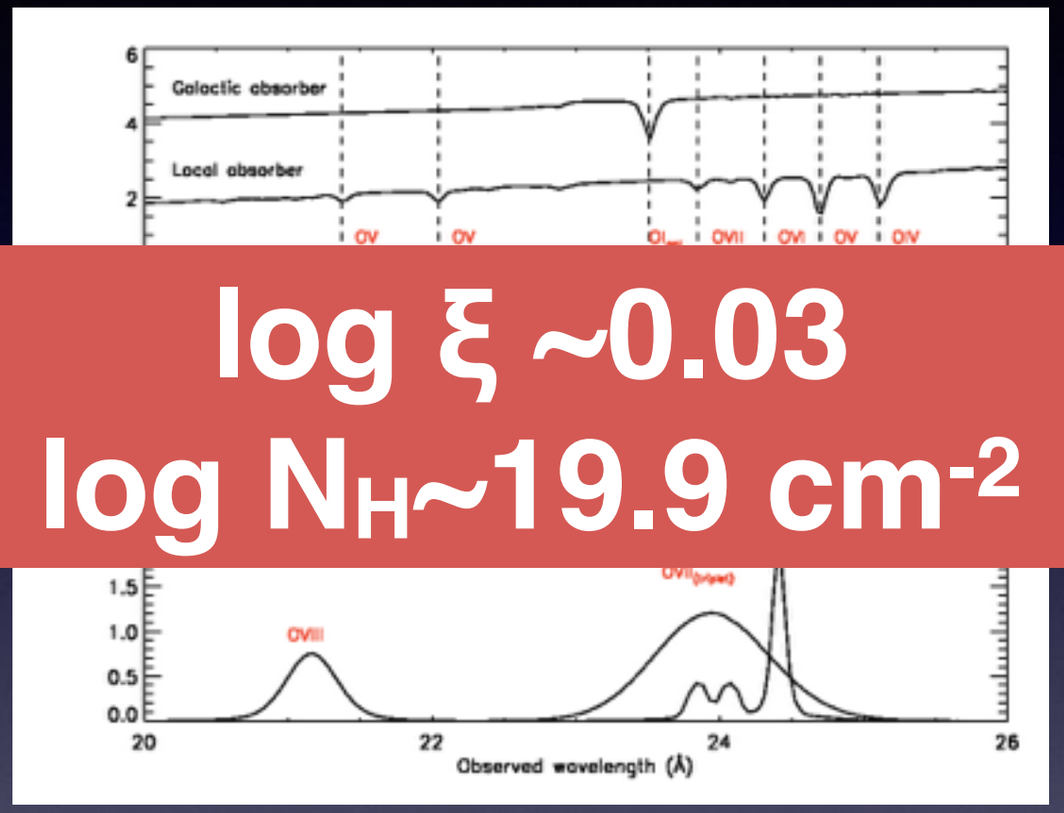
Di Gesu et al. 2013

The galactic outflow: WA

Edmonds et al. 2011



n_H>25 cm^{-3}

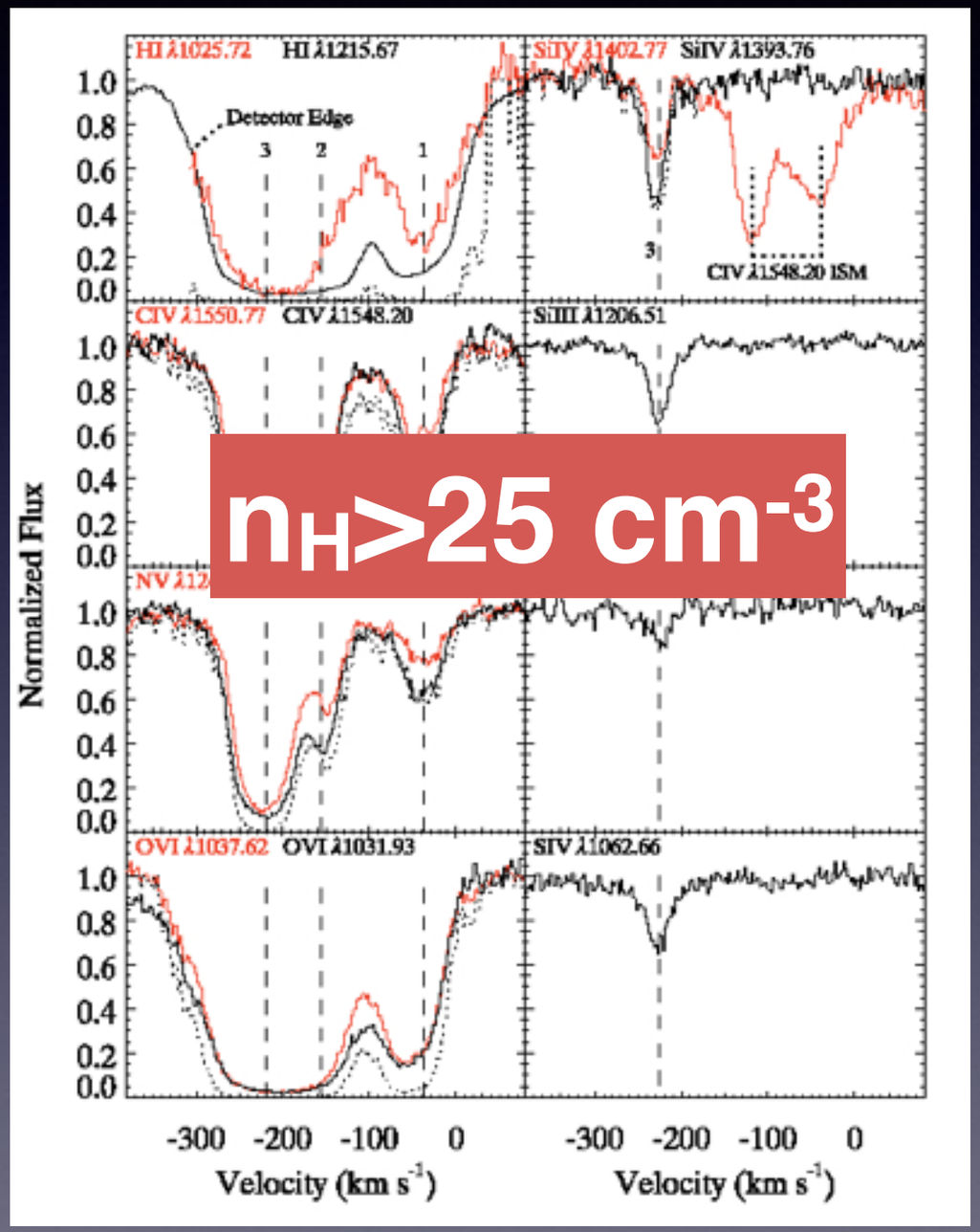


log ξ ~0.03
log N_H~19.9 cm^{-2}

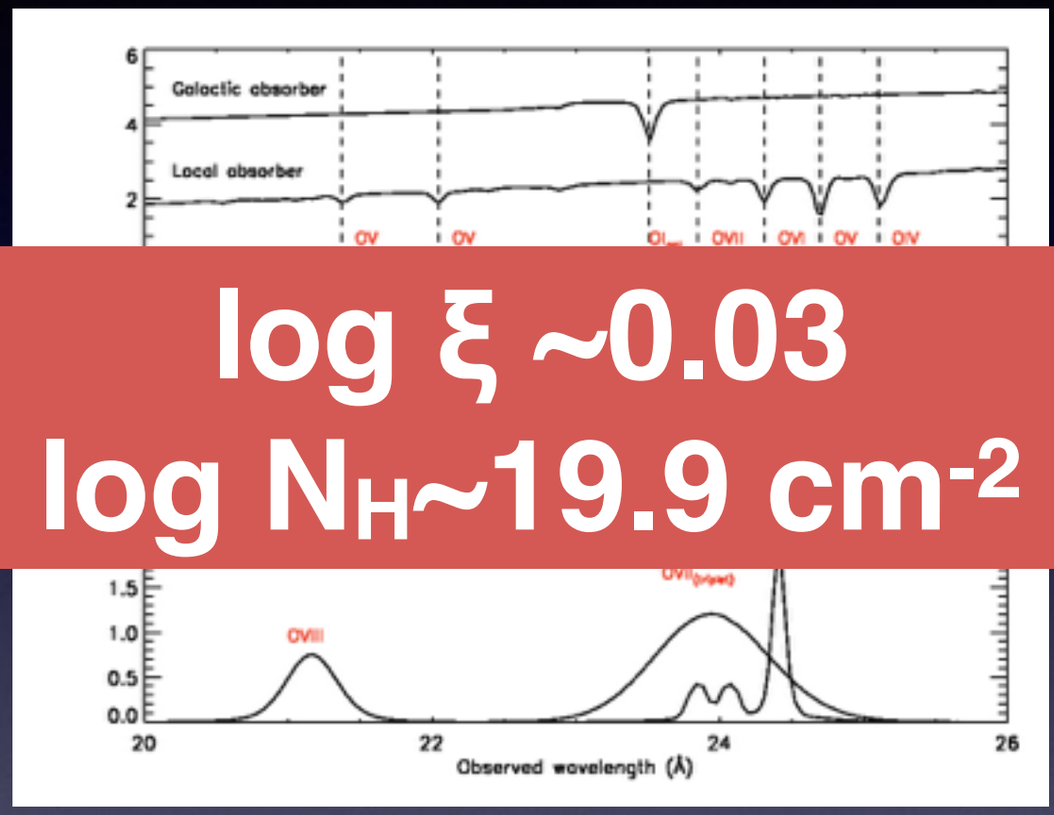
Di Gesu et al. 2013

The galactic outflow: WA

Edmonds et al. 2011



n_H>25 cm^{-3}

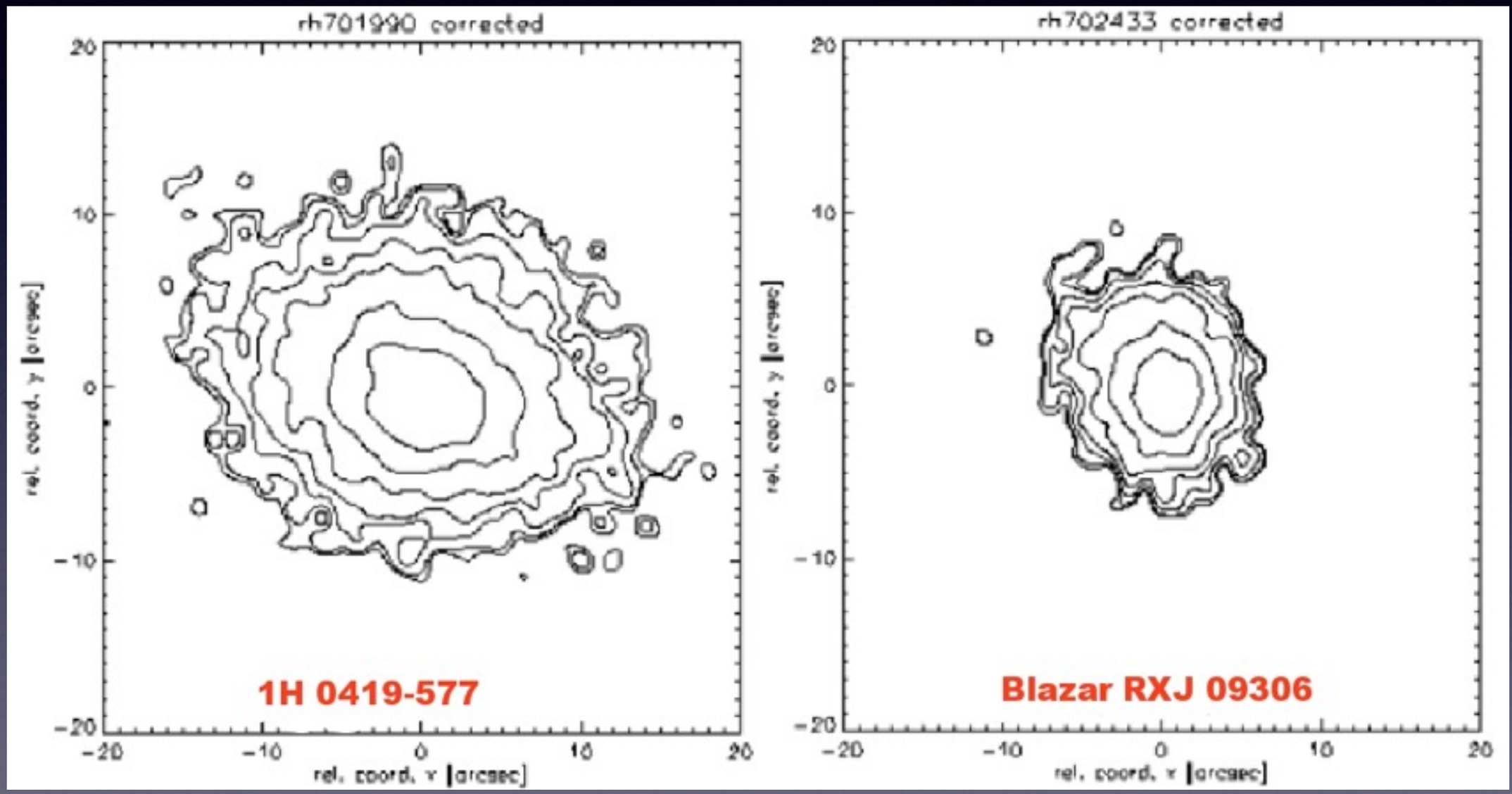


log ξ ~0.03
log N_H~19.9 cm^{-2}

$$d \geq \sqrt{\frac{L_{ion}}{n_H \xi}} \approx 4\,\mathrm{kpc}$$

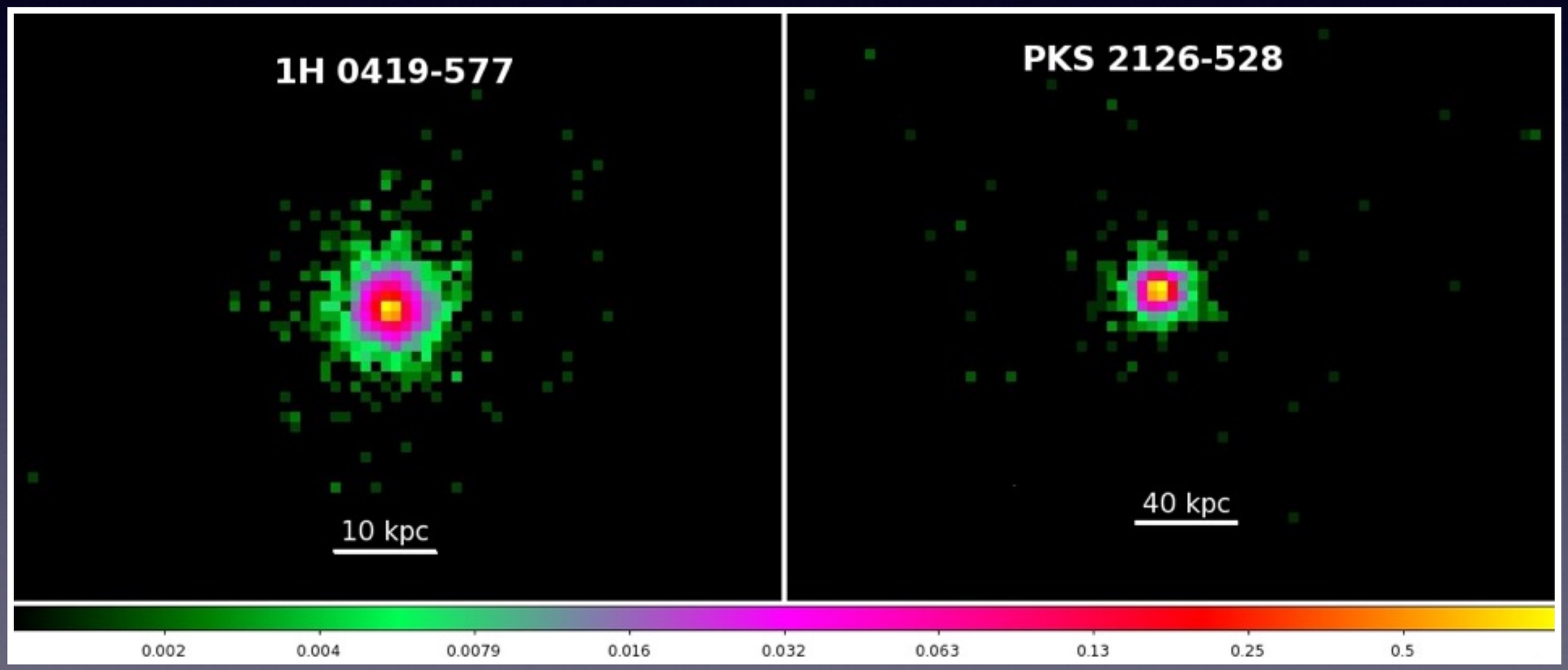
Di Gesu et al. 2013

Extended X-ray emission: ROSAT



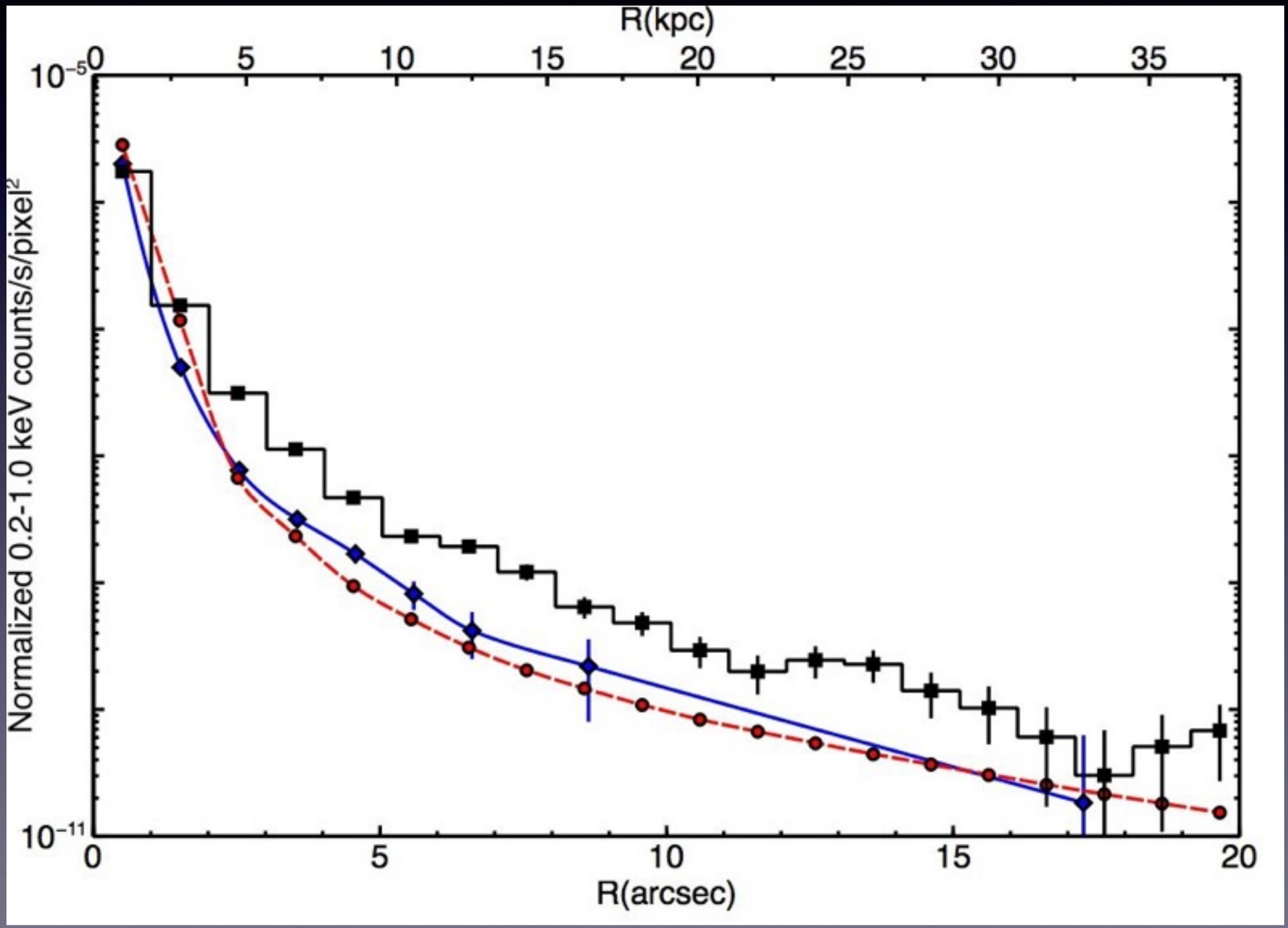
Predhel&Prieto 2001

Extended X-ray emission: Chandra-ACIS

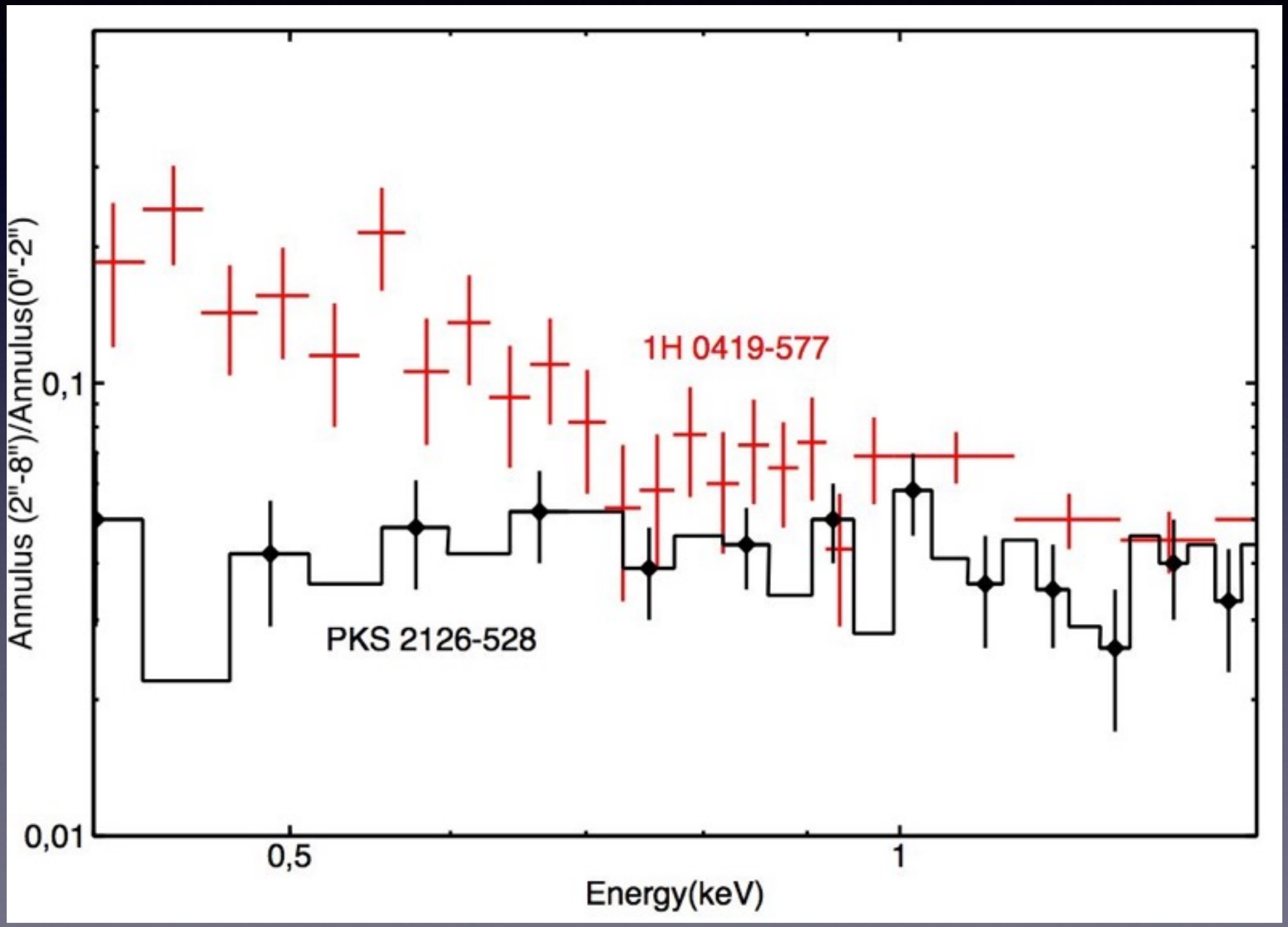


Di Gesu et al. (to be submitted)

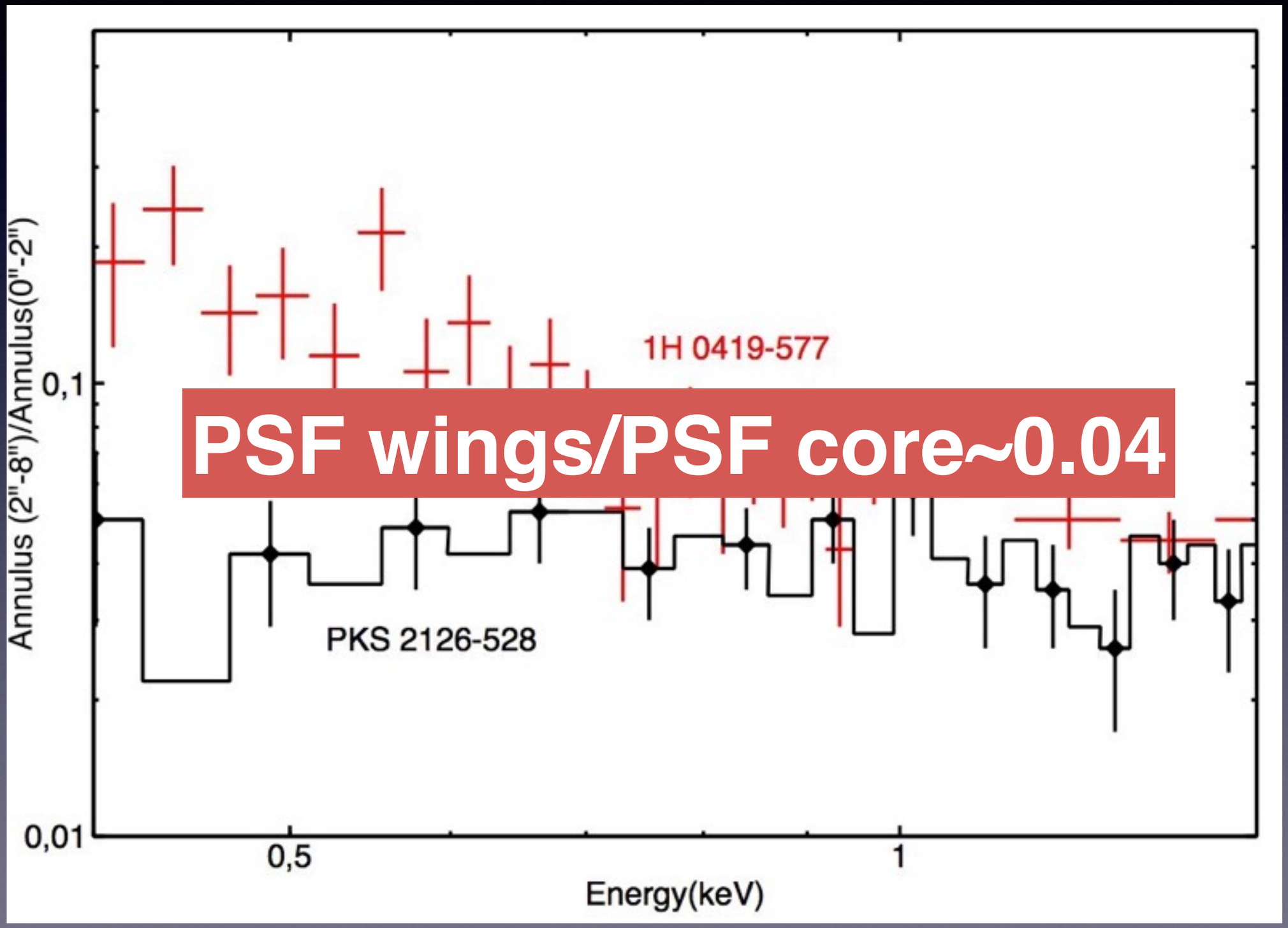
Surface brightness profile



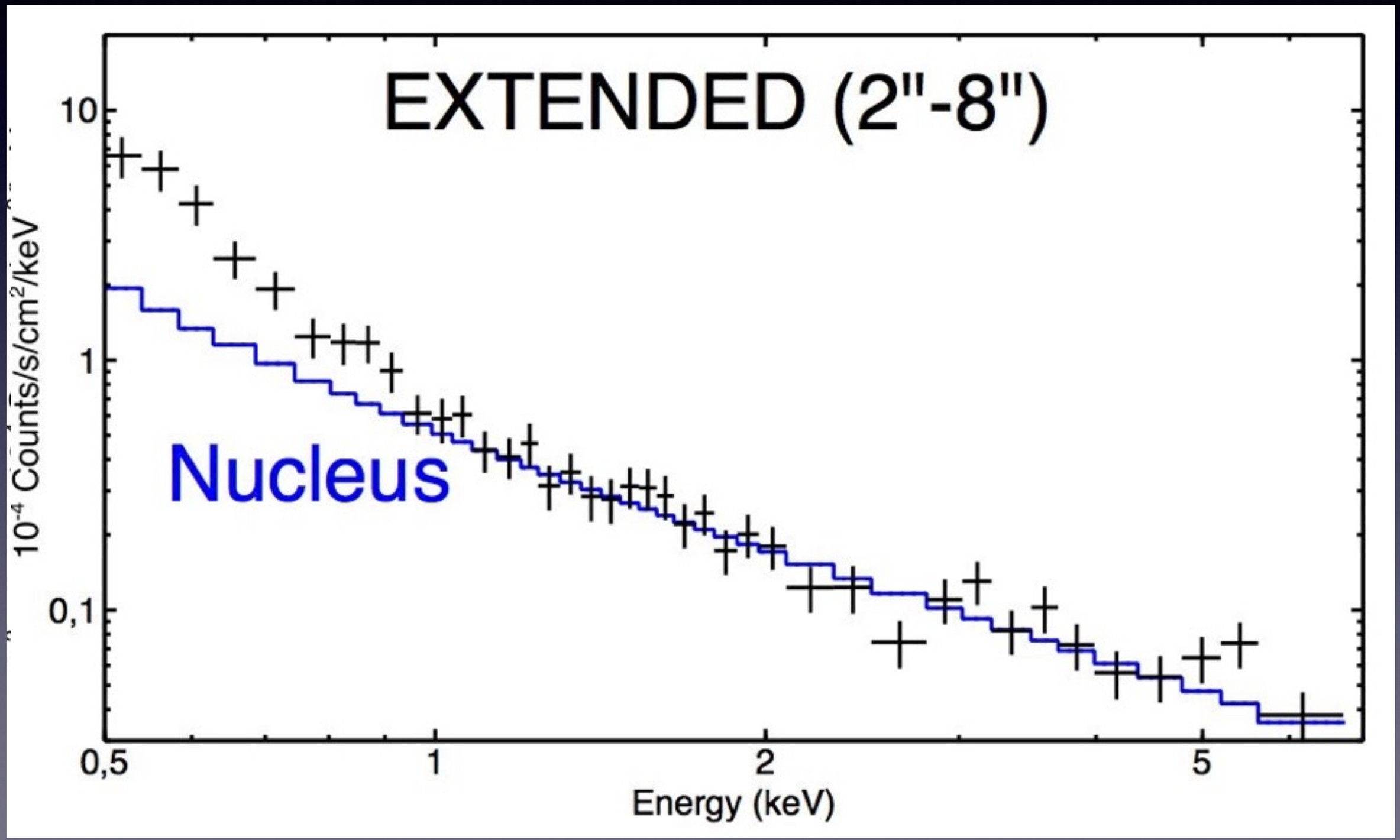
Spectrum


Annulus (2"-8")/Annulus(0"-2")
0,1
0,01
0,5
1
Energy(keV)
1H 0419-577
PKS 2126-528

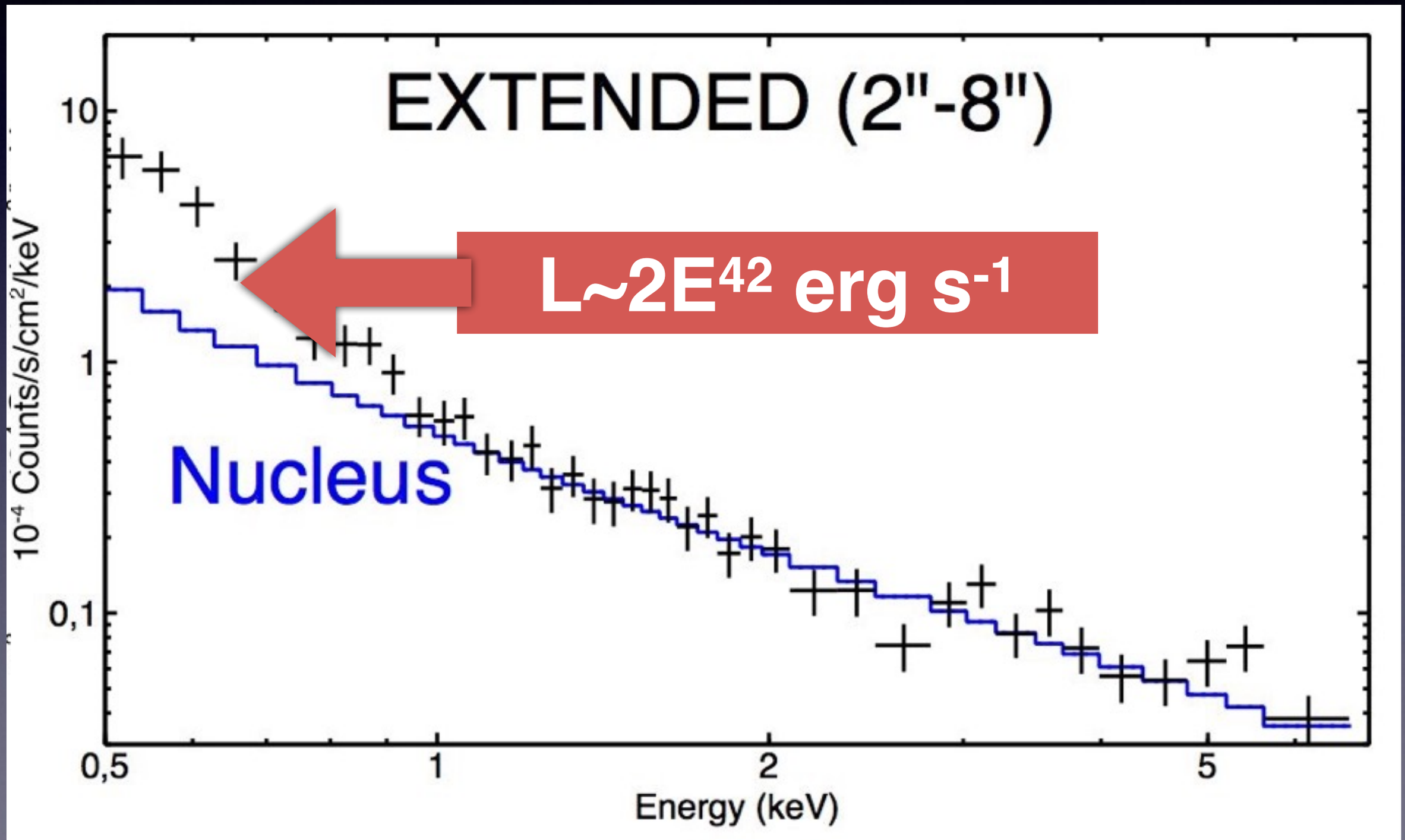
Spectrum


Annulus (2"-8")/Annulus(0"-2")
0,1
0,01
0,5
1
Energy(keV)
1H 0419-577
PKS 2126-528
PSF wings/PSF core~0.04

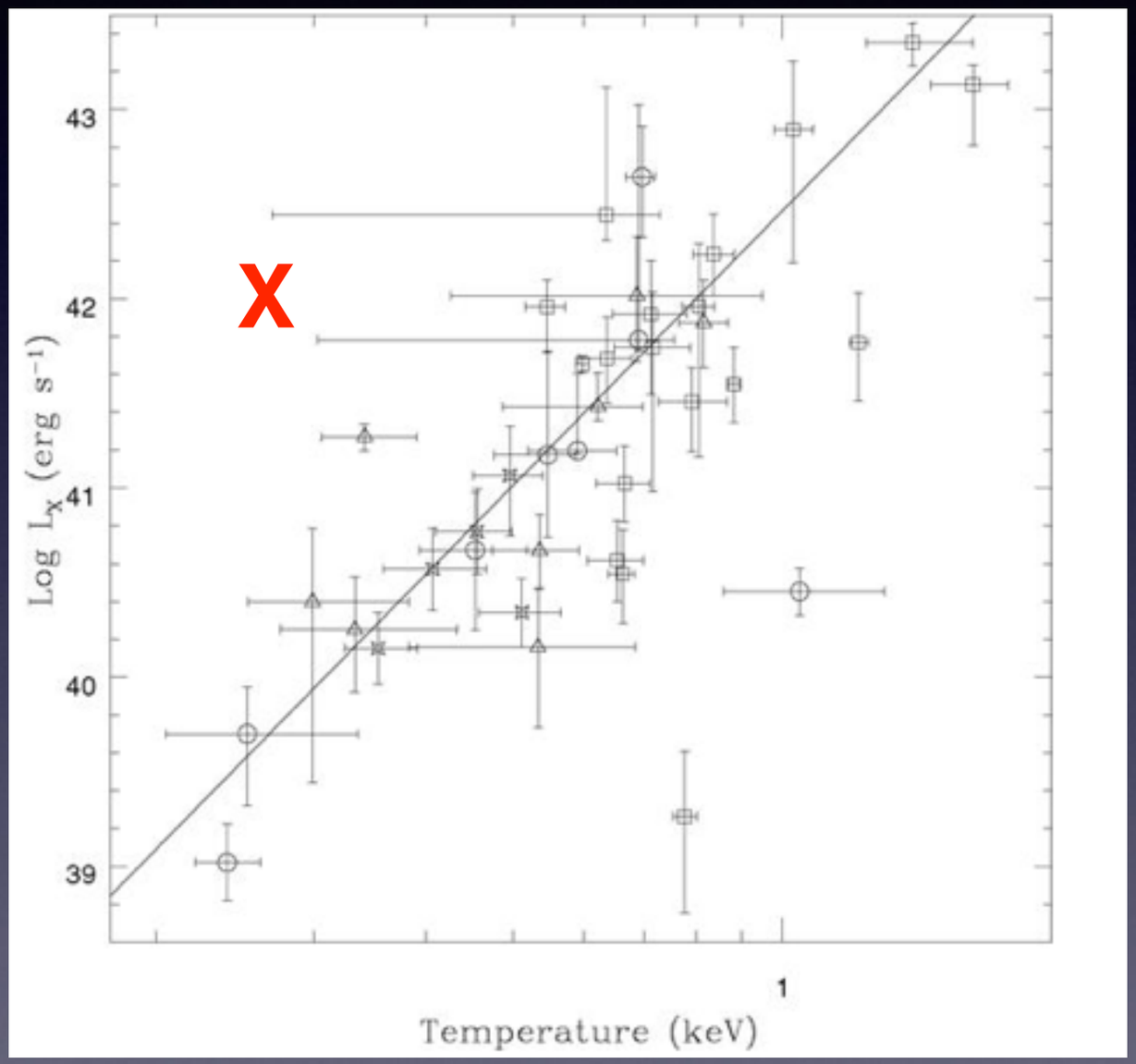
Modeling the nuclear contamination



Modeling the nuclear contamination



This is not:



O'Sullivan 2003

due to the X-ray halo

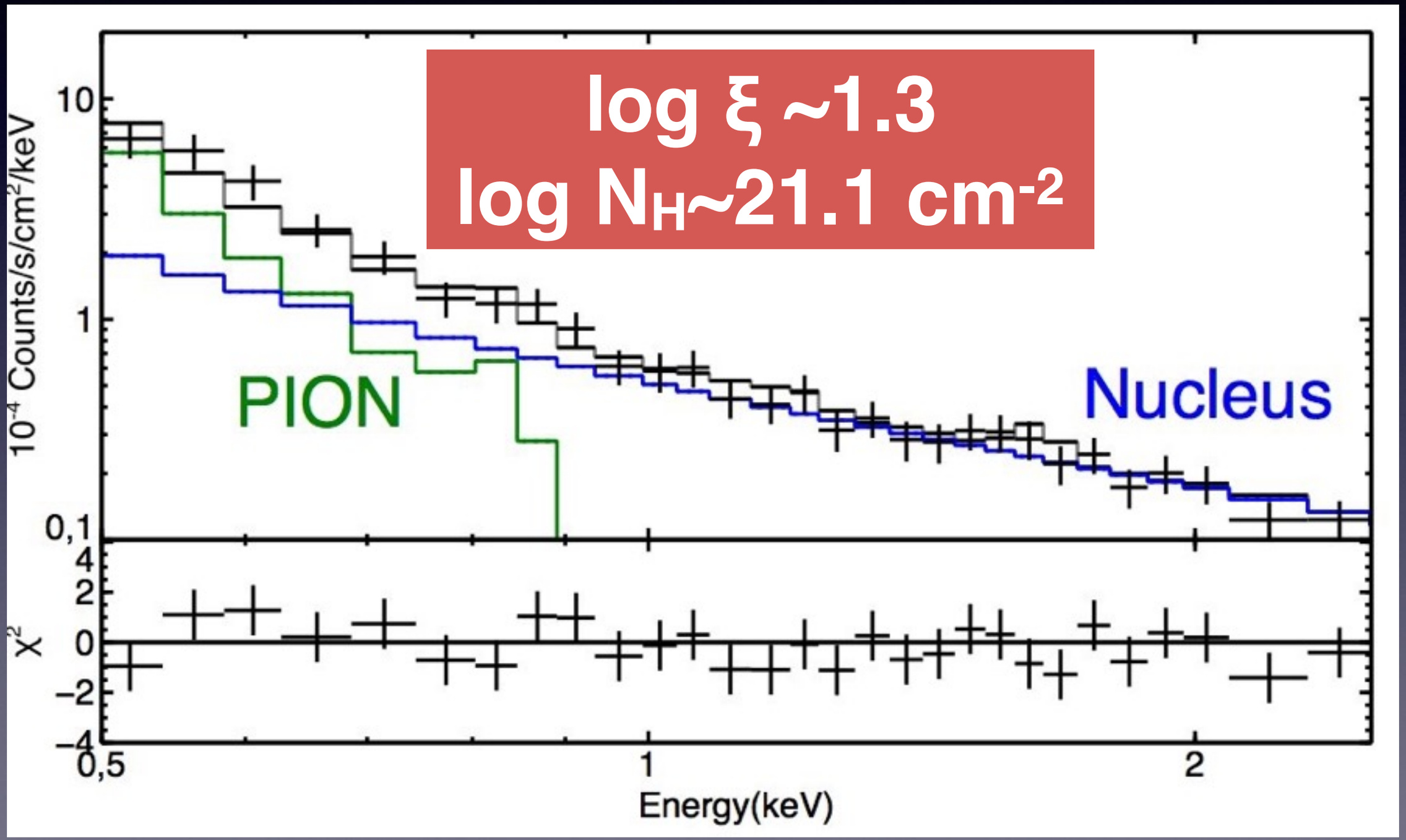
SFR <70 M_{sol}/yr

Ranalli 2003

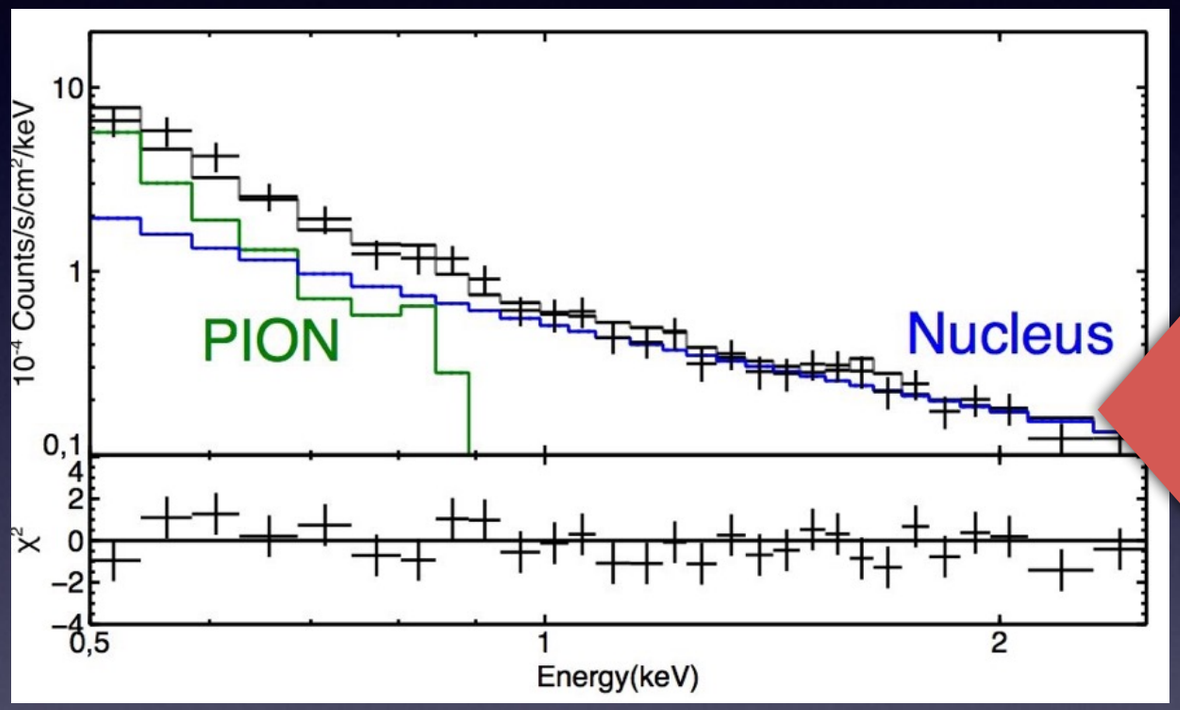
$L_{X,SFR}$< 3E^{41} ergs s^{-1}

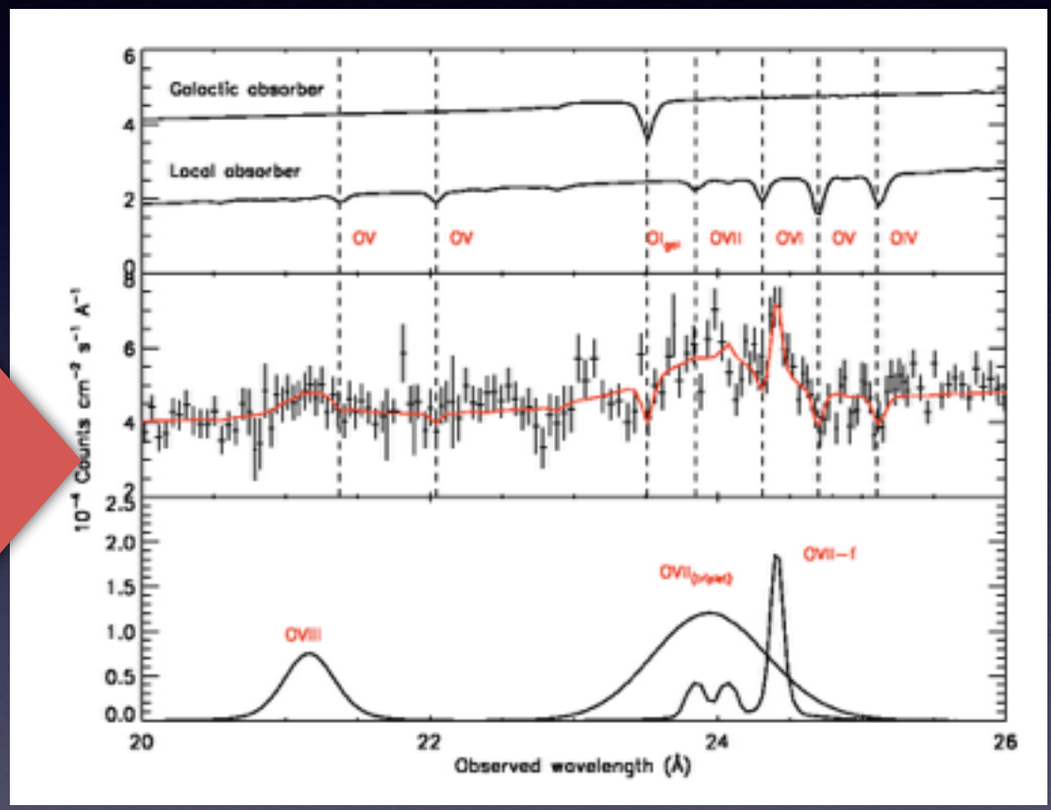
due to the starburst

Photoionized Nebula



No connection with the WA

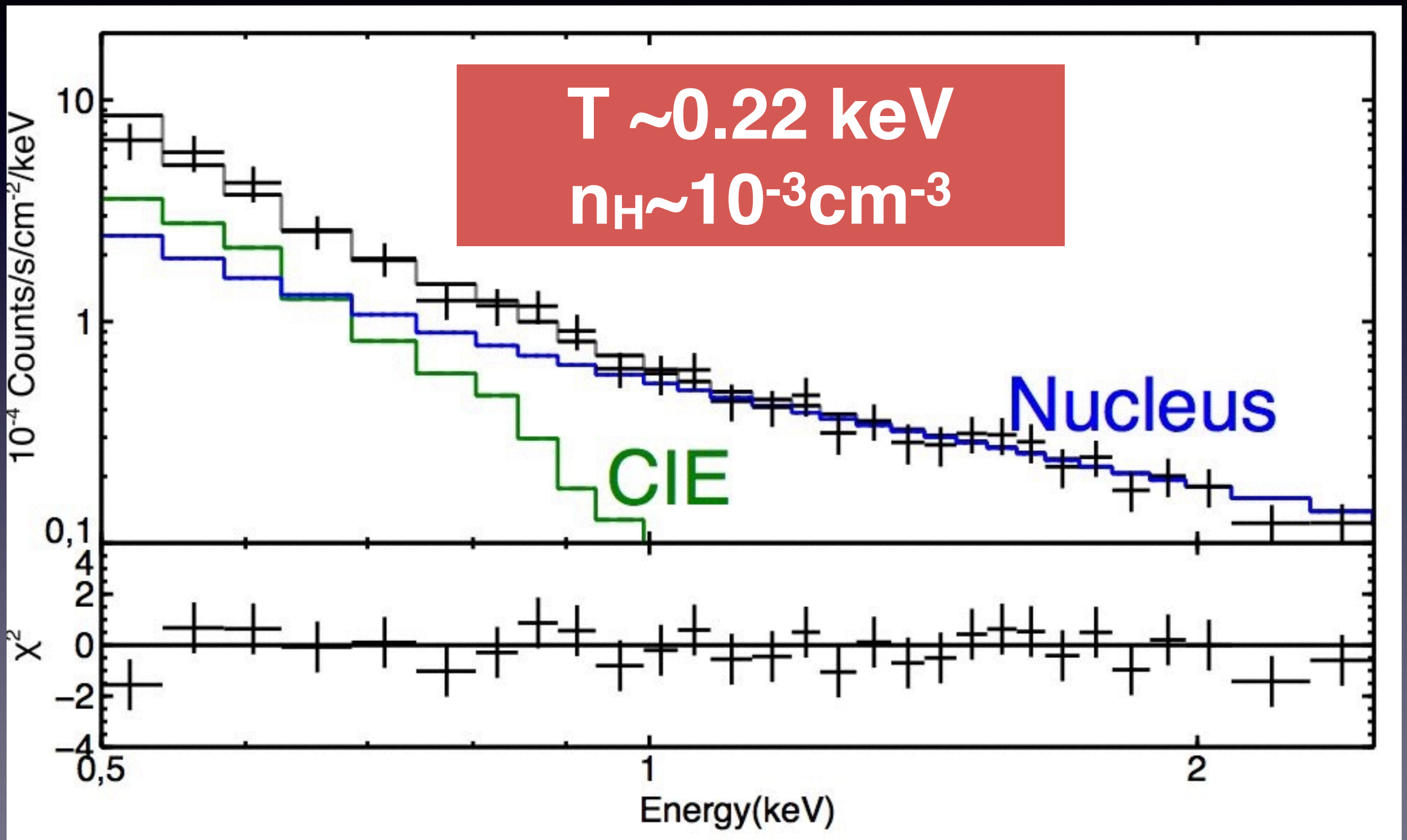




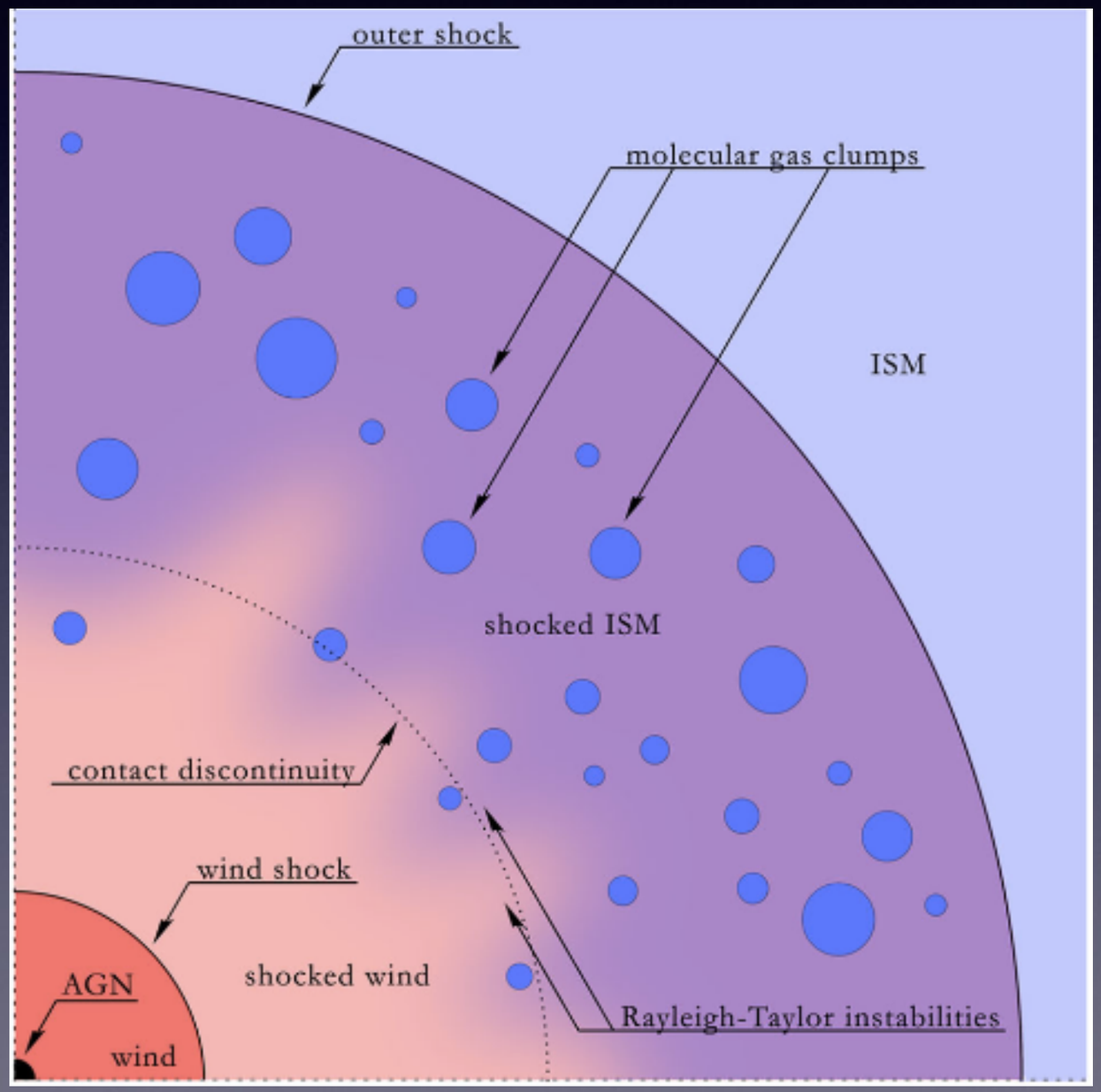
log ξ ~1.3
log N_H~21.1 cm^{-2}

log ξ ~0.03
log N_H~19.9 cm^{-2}

Shocked gas


T ~0.22 keV
n_H~$10^{-3}$$cm^{-3}$
Nucleus
CIE
10
1
0,1
10^{-4} Counts/s/cm^{-2}/keV
4
2
0
−2
−4
χ^2
0,5
1
2
Energy(keV)

Cooling of a shocked wind bubble

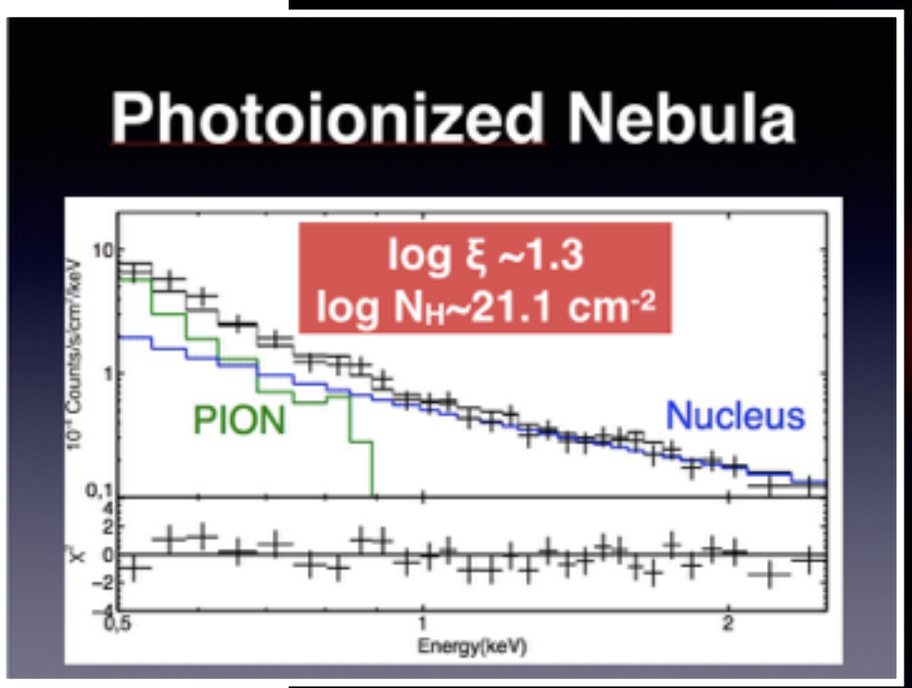


Zubovas&King 2014

…but see also e.g. Costa+15 Liu+13

Conclusion

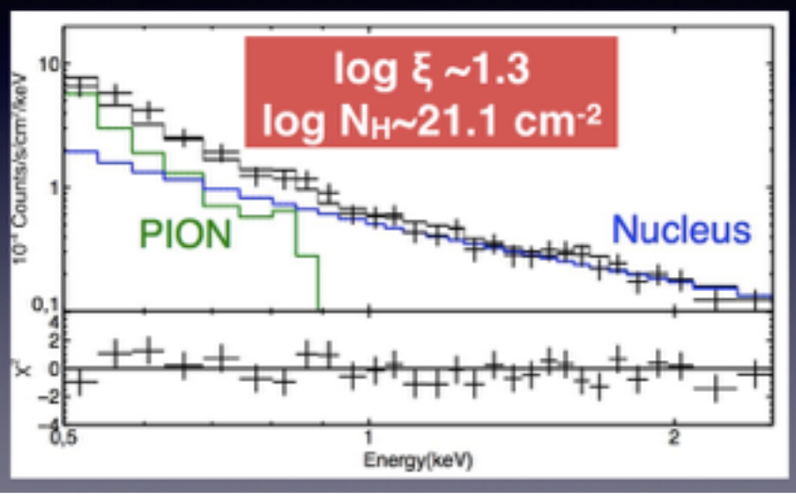
Conclusion



different from
otoionized absorber

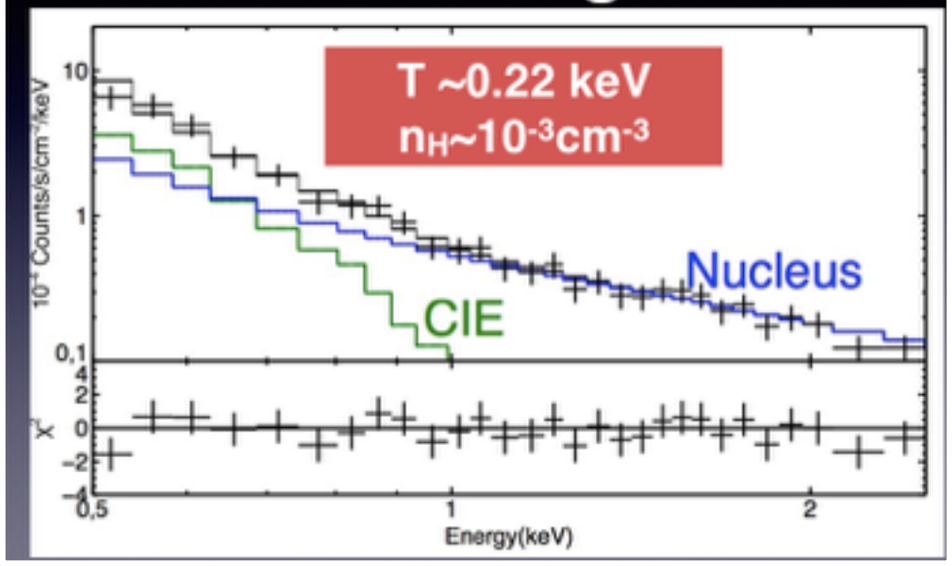
Conclusion

Photoionized Nebula



different from
otoionized absorber

Shocked gas



associated w
wind bubb