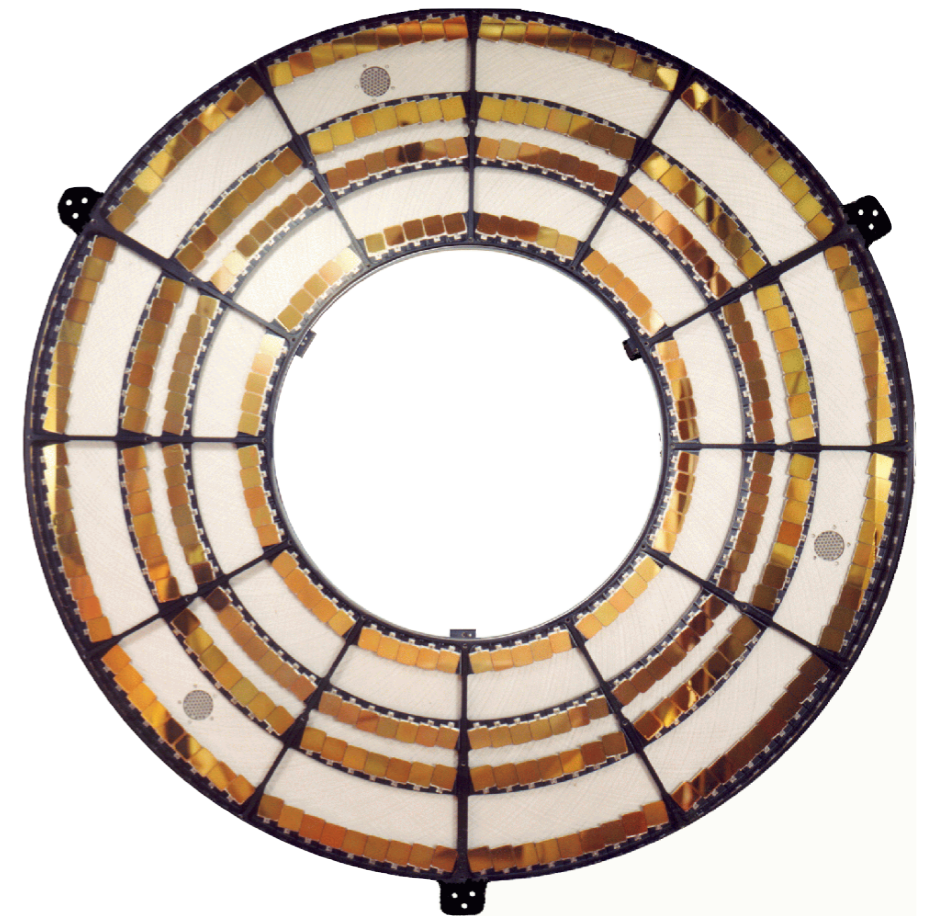




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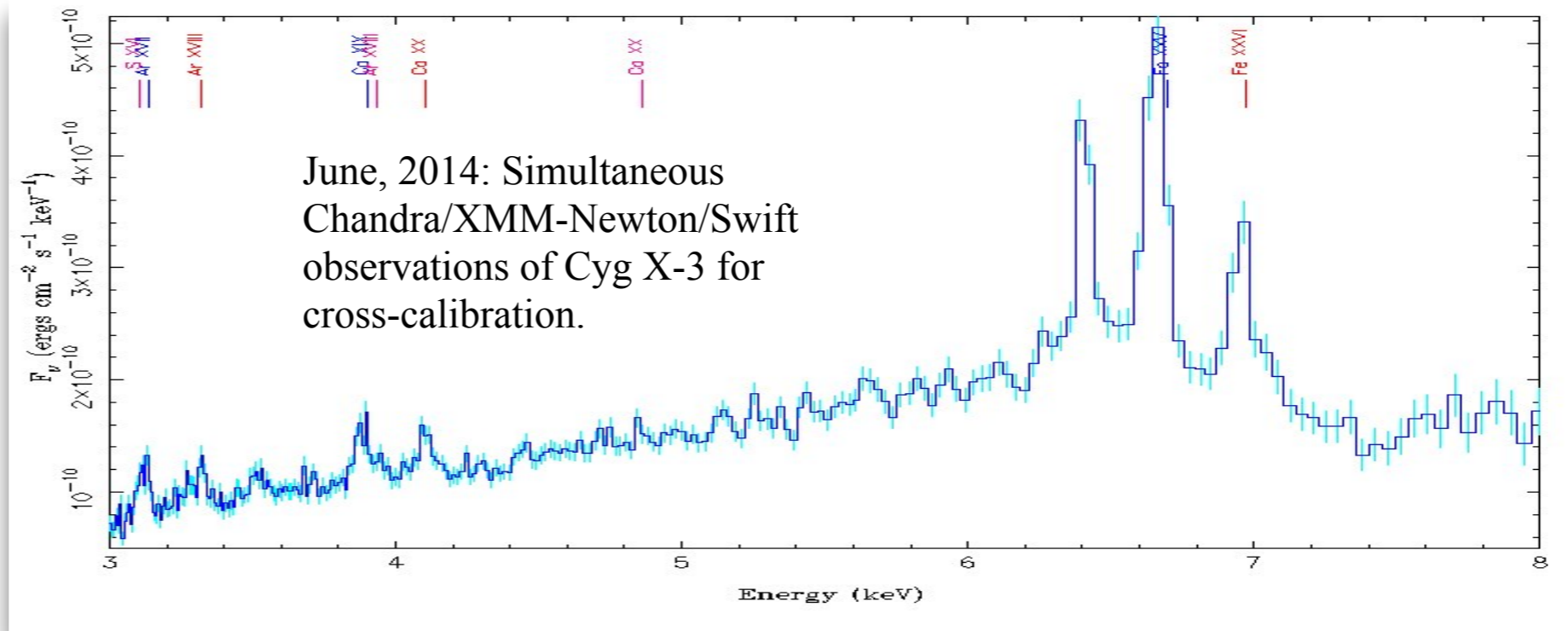
HETG - Status

Chandra Quarterly Review No. 38
15 October 2014



David Huenemoerder
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HETG IPI: Prof. C.R. Canizares
MIT Kavli Institute



- HETG Performance (Apr 2014 - Sep 2014)
 - 20 HETG science observations on 9 targets
 - 3 HETG Cal observations on 2 targets
 - Monitoring: FWHM streak (for focus check)
- HETG performance is nominal
- LETG GO/GTO Usage: 8 observations on 3 targets
- LETG Cal: 8 observations (4 ACIS-S, 3 HRC-S, 1 HRC-I)



GTO Science Program

Cycle 15:

- Hot star: HD 206267 - 100 / 150 ks (add to Cycle 2's 74 ks)
- AGN: Mrk 766 345 ks (done)
- LMXB: GX 3+1 90 ks (done)
- XRB: LMC X-2 100 ks (pending)

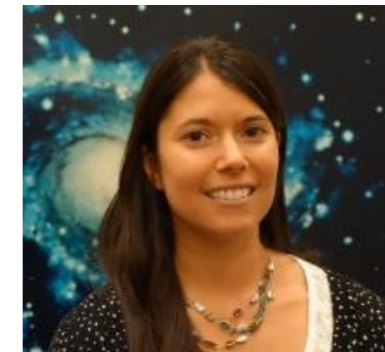
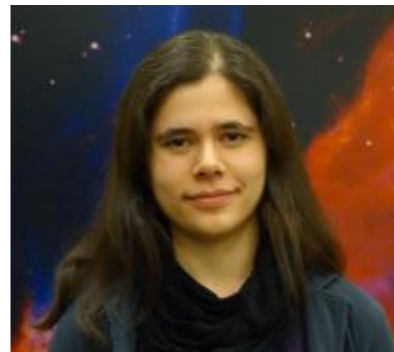
Cycle 16 Plan:

- Hot star: τ CMa: 210 ks (O9 II; stellar winds)
- XRB: 4U 1626-67 50 ks (ultra-compact LMXB pulsar)
- XRB: Ser X-1 135 ks (Si K edge study)
- XRB: 4U 0513-40 150 ks (ultra-compact)
- AGN: PDS 456 150 ks (QSO, warm absorber)
- NS: Terzan 5 X-2 200 ks (TOO)

Postdoc status:

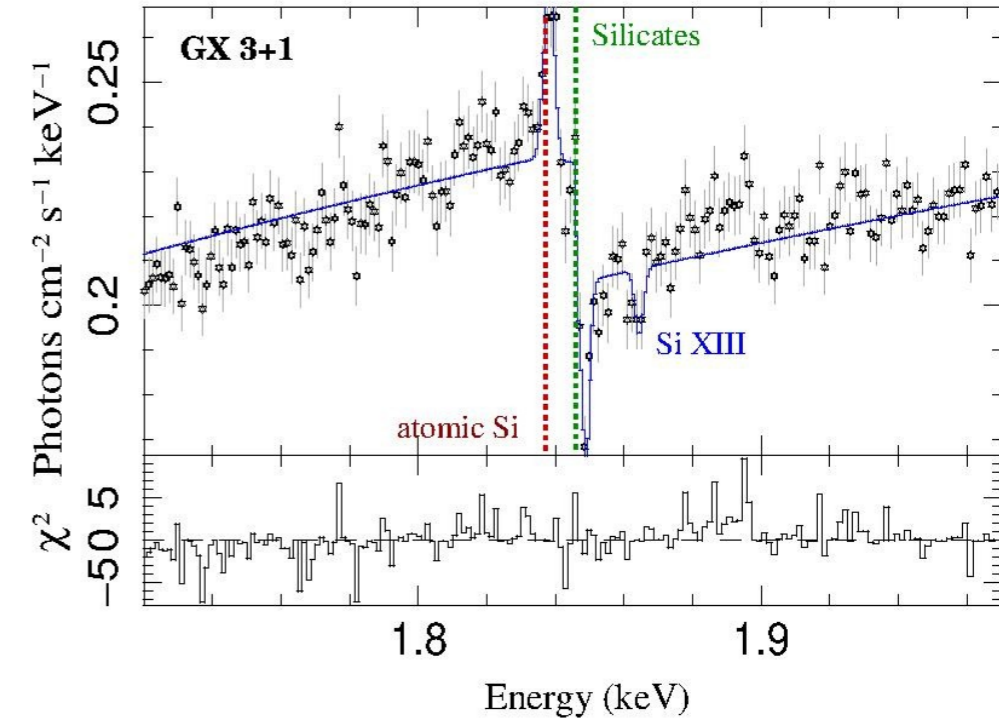
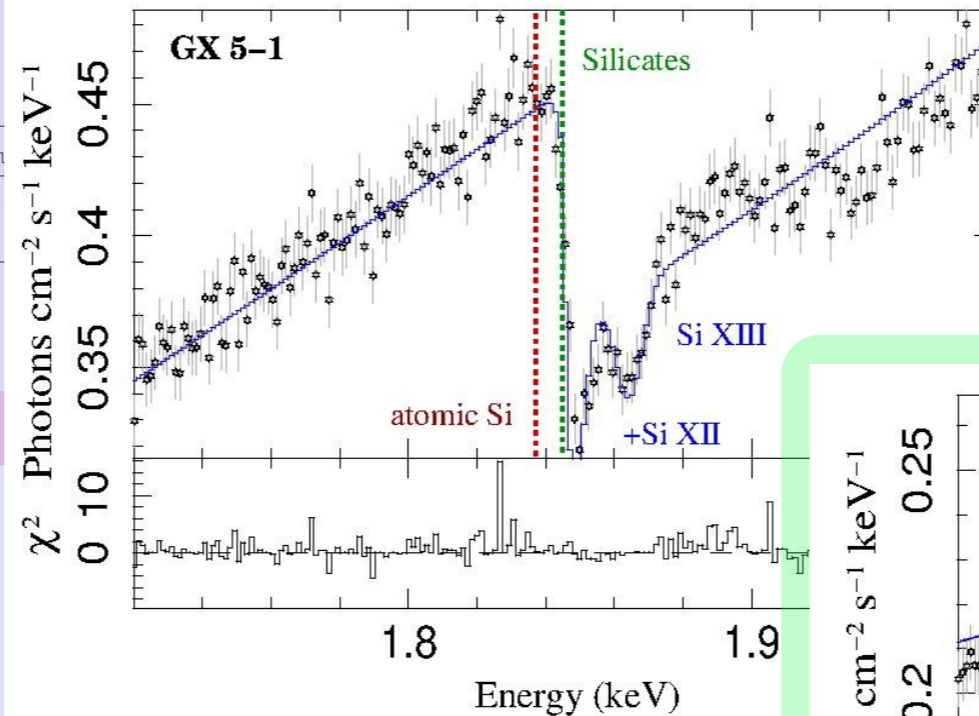
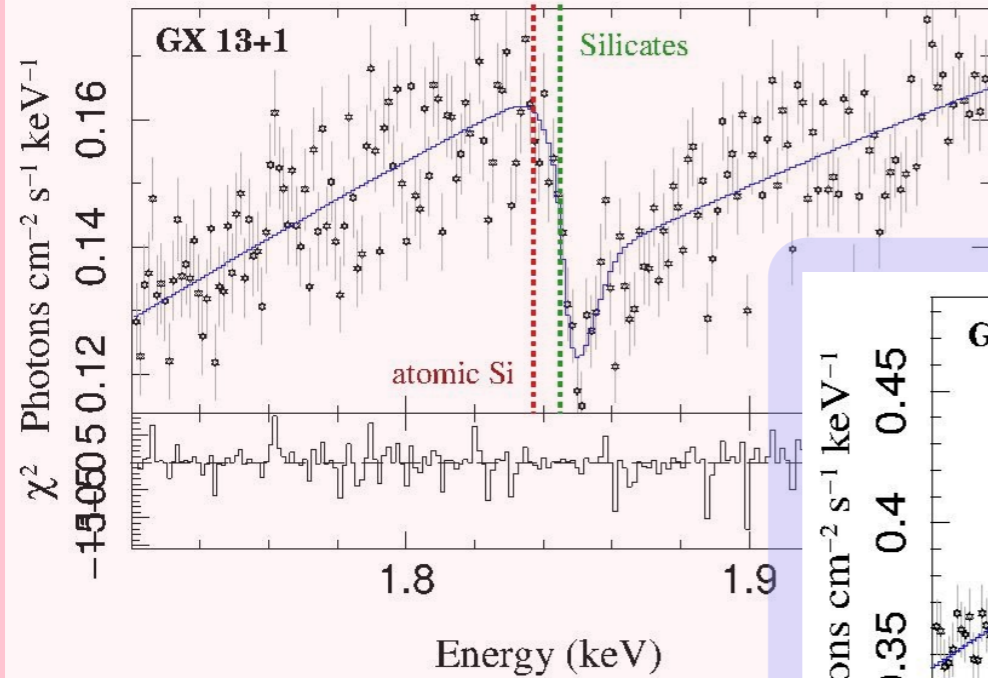
Victoria Grinberg - started Dec, 2013

Lia Corrales - started July 2014



Morphology of Si K edges in X-Ray Binary Spectra

Atomic Si, silicates, & circumbinary ionization



Silicates only

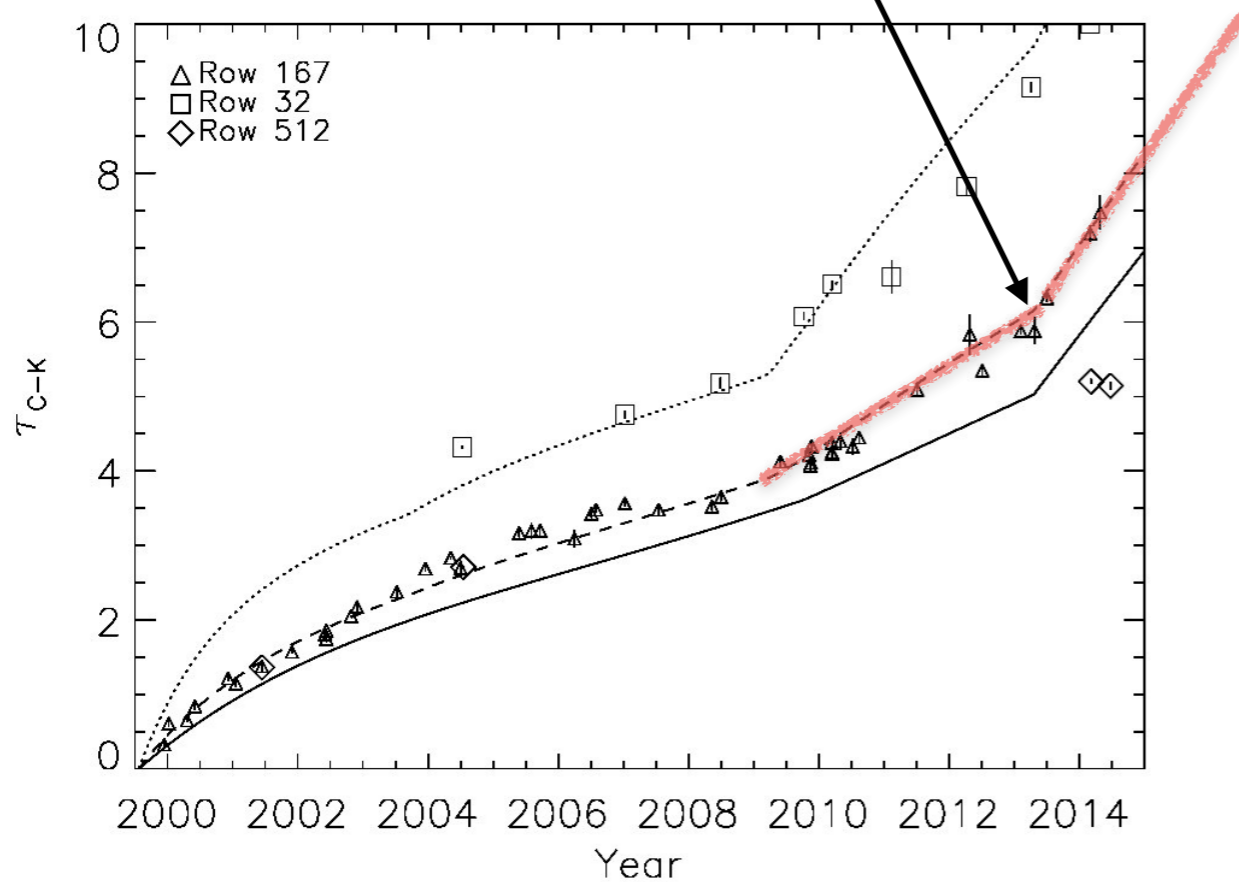
Silicates & circumbinary ionization

HETG Calibration

Contamination update:

Time dependence:

change in slope



Spatial dependence:

“Big Dither”: Oxygen differs from carbon and fluorine:

