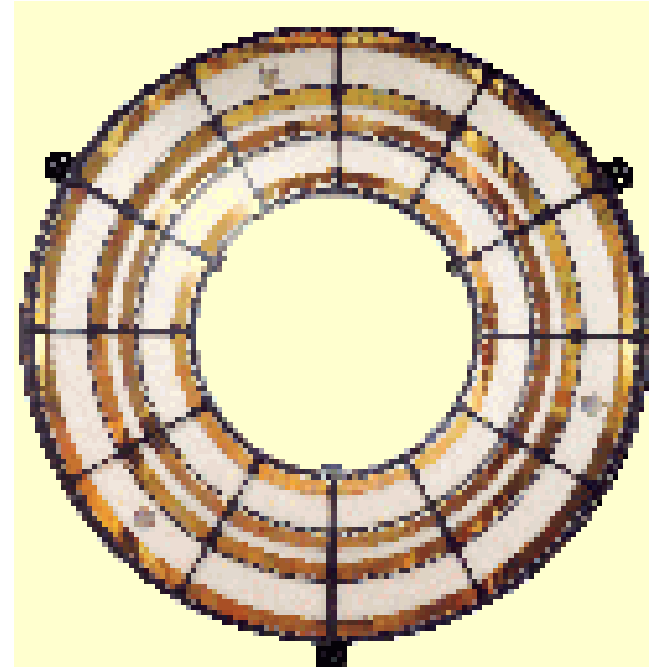




MIT Kavli Institute  
for Astrophysics  
and Space Research

## HETG - Status

*Chandra* Quarterly Review No. 34  
25 September 2012

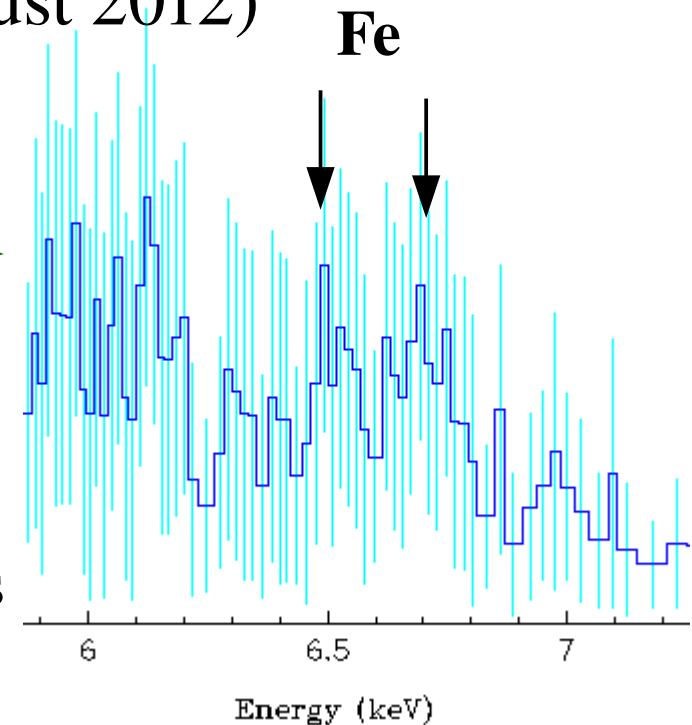


Dan Dewey  
dd@space.mit.edu

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

## HETG Performance (March 2012 -- August 2012)

- \* 48 HETG obs.s on 9 Science + 3 Cal targets
  - 27 obsids for Sgr A\*, **2.3 Ms in TGCat** →
  - 6 on our GTO SMC X-1 (last on 9/2)
- \* Updated **Streak-width monitoring** (next page)
- \* HETG performance is nominal.
- \* LETG usage: 18 obsids on 2 Sci., 4 Cal targets



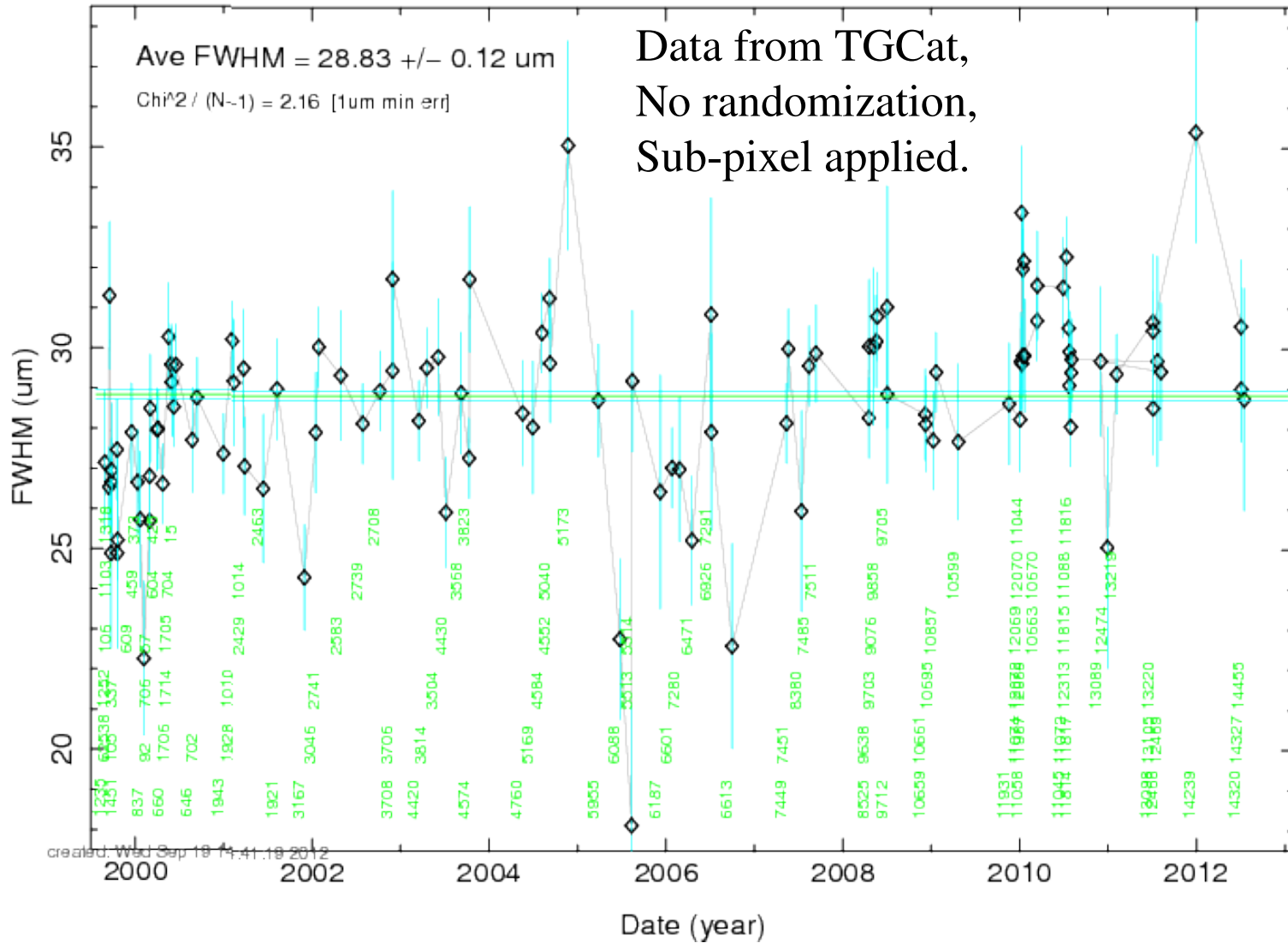
## Support to CXC

- \* Continued Calibration work on E0102 and SN 1987A.
- \* Continued TGCat ingestion and V&V activities.

TGCat: <http://tgcat.mit.edu/>

# HETG Streak Width Monitoring

FWHM of HETG Streak Core vs Time (TGCat processed)



## GTO Science Program

@ Cycle 13: --- completed ---

- AGN: 3C 445 [420 ks]
- XRB: SMC X-1 [260 ks]
- Star: HD 97950C [50 ks] (next page)
- SNR: Puppis A [15 ks - no HETG]

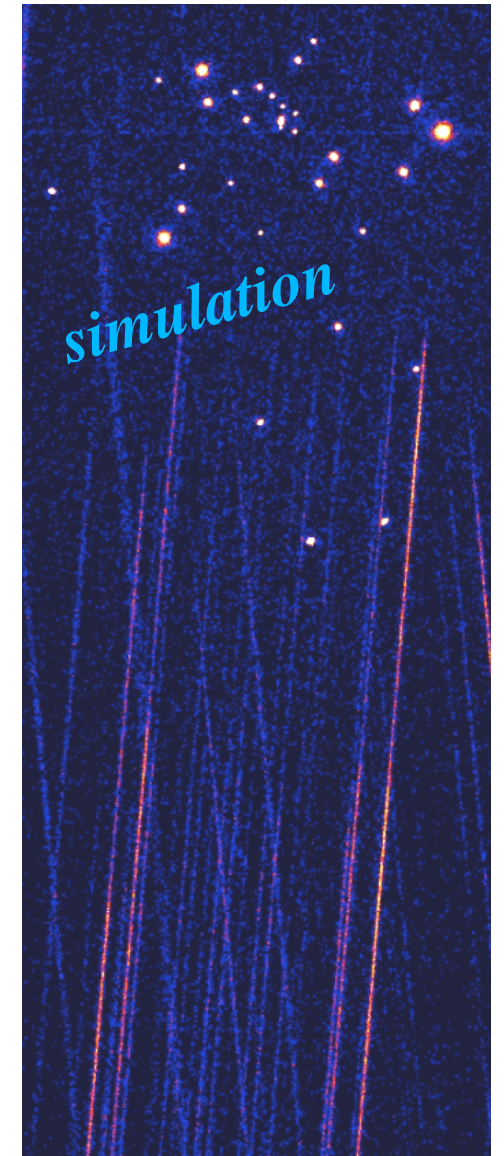
@ Cycle 14:

- Star: HD 79826 [65 ks]
  - 0.5 day eclipsing “RS CVn” system
- **M31**: XRB, SNR, AGN [685 ks]

@ Postdoc status:

- Two HETG postdocs, currently.
- One departure on Nov. 30

*(“curse you, Einstein Fellowship!”)*



NGC 3603, HST view:

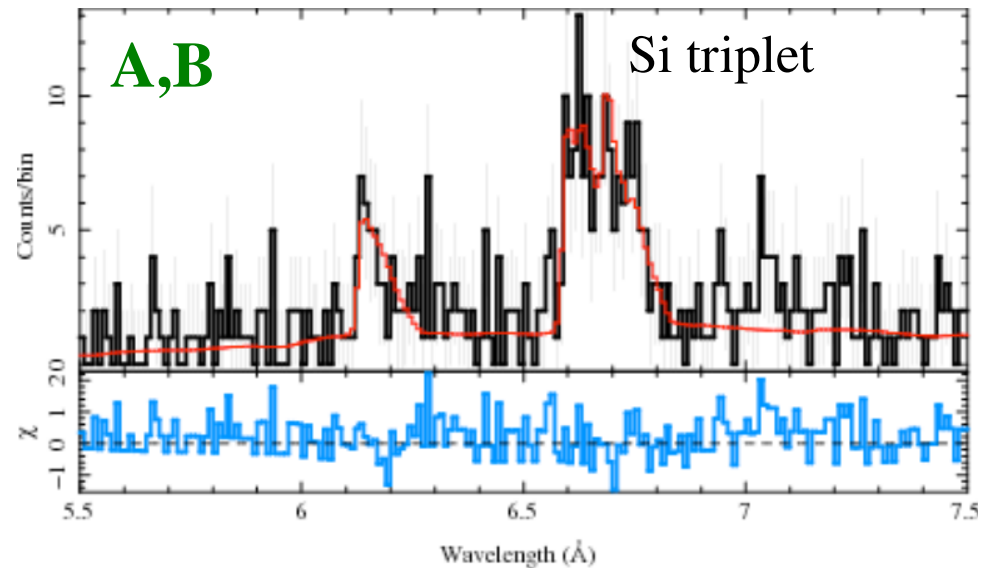
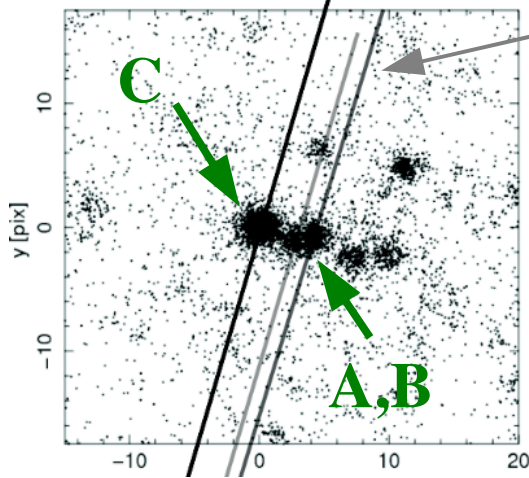


A nearby, young starburst cluster  
 Massive ( $> 25 M_{\odot}$ ) Wolf-Rayet stars  
 Deep Chandra imaging obs. (PI Townsley)  
 Recent HETG GTO “pathfinder” obs, 50 ks

Dispersion direction separates A,B from C

Wind-profile fits give  $v_{\infty} \sim 3000$  km/s :

Chandra events:



---> Can design/justify a deeper observation