



IACHEC Thermal SNRs Working Group Meeting

Tuesday April 21, 2026

14:30 UT = 16:30 CEST = 10:30 EDT = 23:30 JST



WG Meeting Agenda

E0102:

- Paul: now include Mg XI norm in the fit, stop fitting O VII in 2021, stop fitting O VIII in 2024
- Konrad: eROSITA, Eric: Suzaku, Martin: pn, MOS & RGS also fit the Mg XI norm

N132D:

- Hiromasa: compare XRISM observations to each other, compare Foster et al. 2025 model and XRISM model

Cas A:

- Manan: UltraSPEX results from XRISM. Can we use the information on energy shifts and line broadening to inform an IACHEC model ?

Tycho:

- Leila: Chandra and XRISM results. Should the other missions use Tycho as a calibration source ? Swift has been using Tycho.

Kepler:

- Brian G: Kepler, NuSTAR uses the Fe-K line

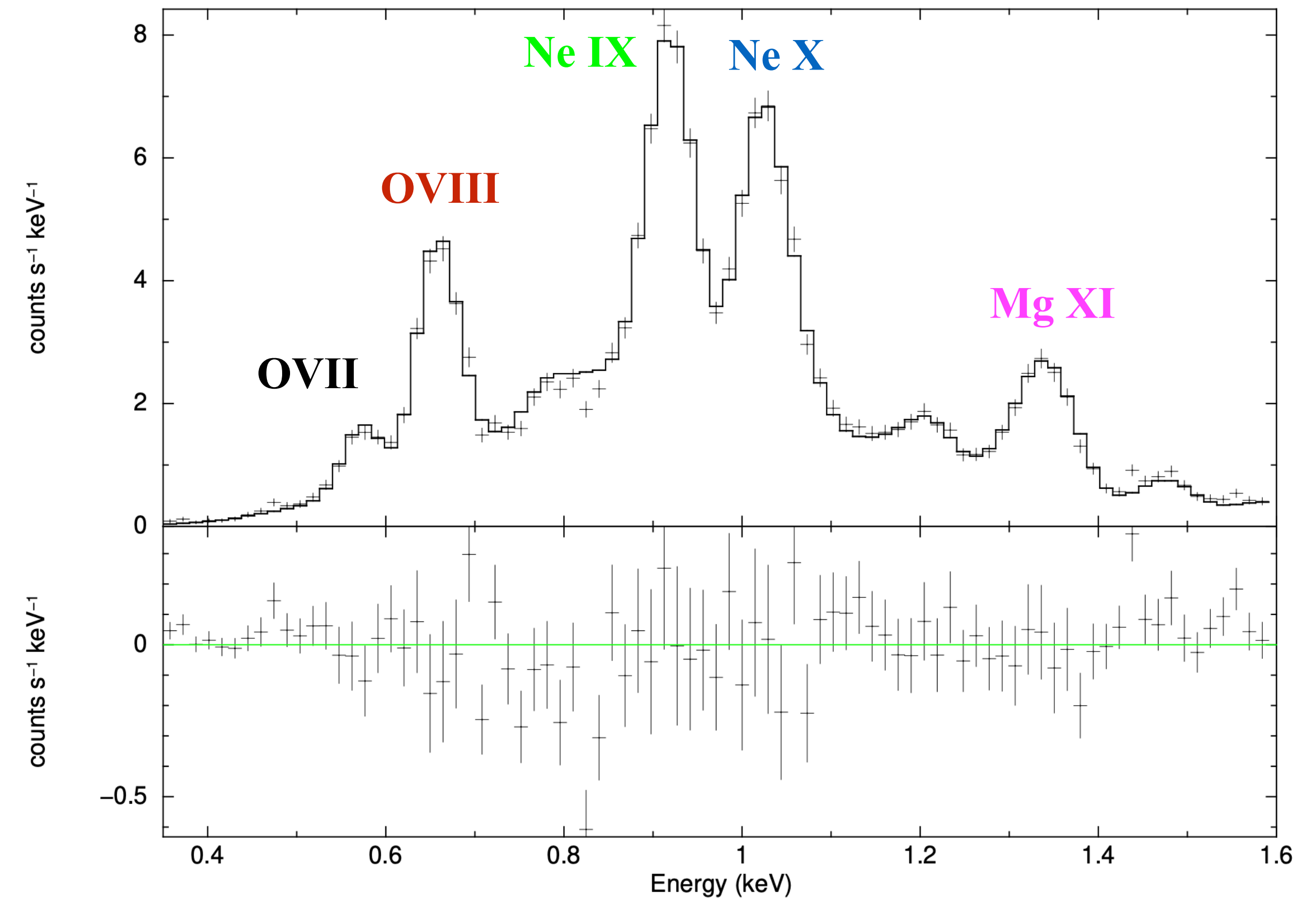
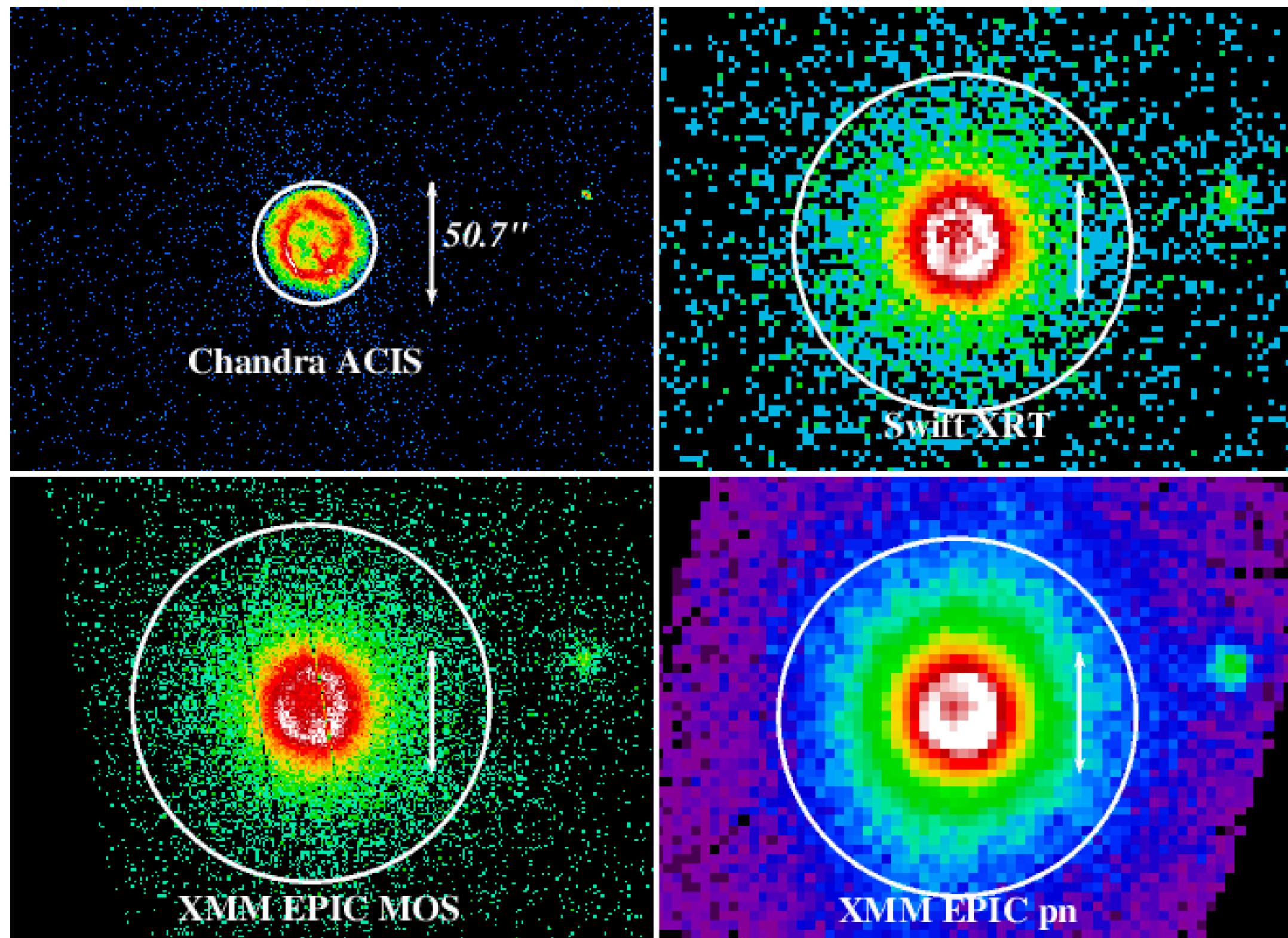


Updates on Chandra Analysis of 1E 0102.2-7219 (E0102)

- Pete Ratzlaff takes over the analysis of the data. **Thank you Pete !!!!!**
- stop fitting OVII normalization in 2021, stop fitting OVIII normalization in 2024
- now fit the Mg XI normalization for all observation (the entire time period)

Plucinsky et al. 2017

ACIS I3 a FI CCD OBSID 3526



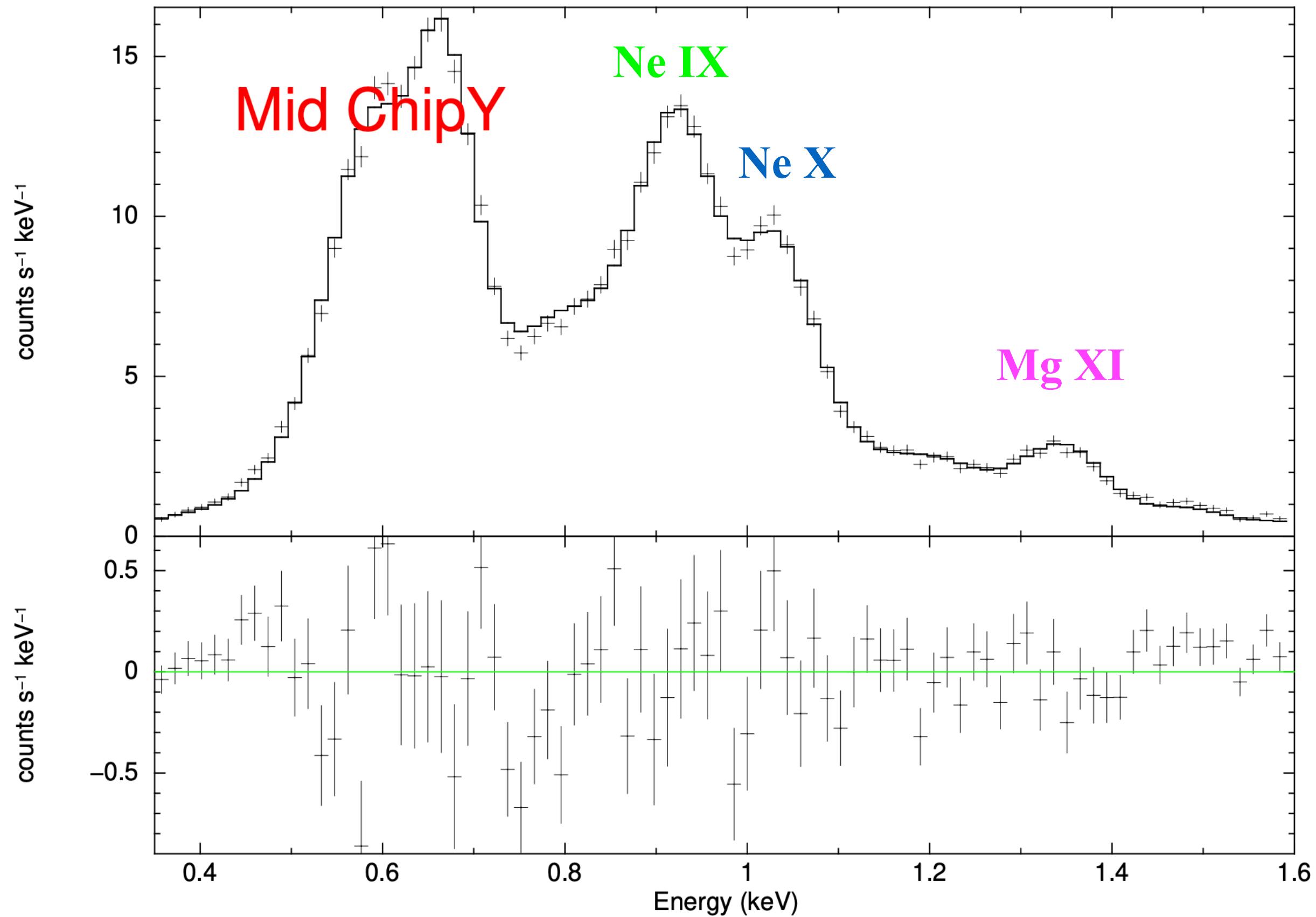


Updates on Chandra Analysis of 1E 0102.2-7219 (E0102)

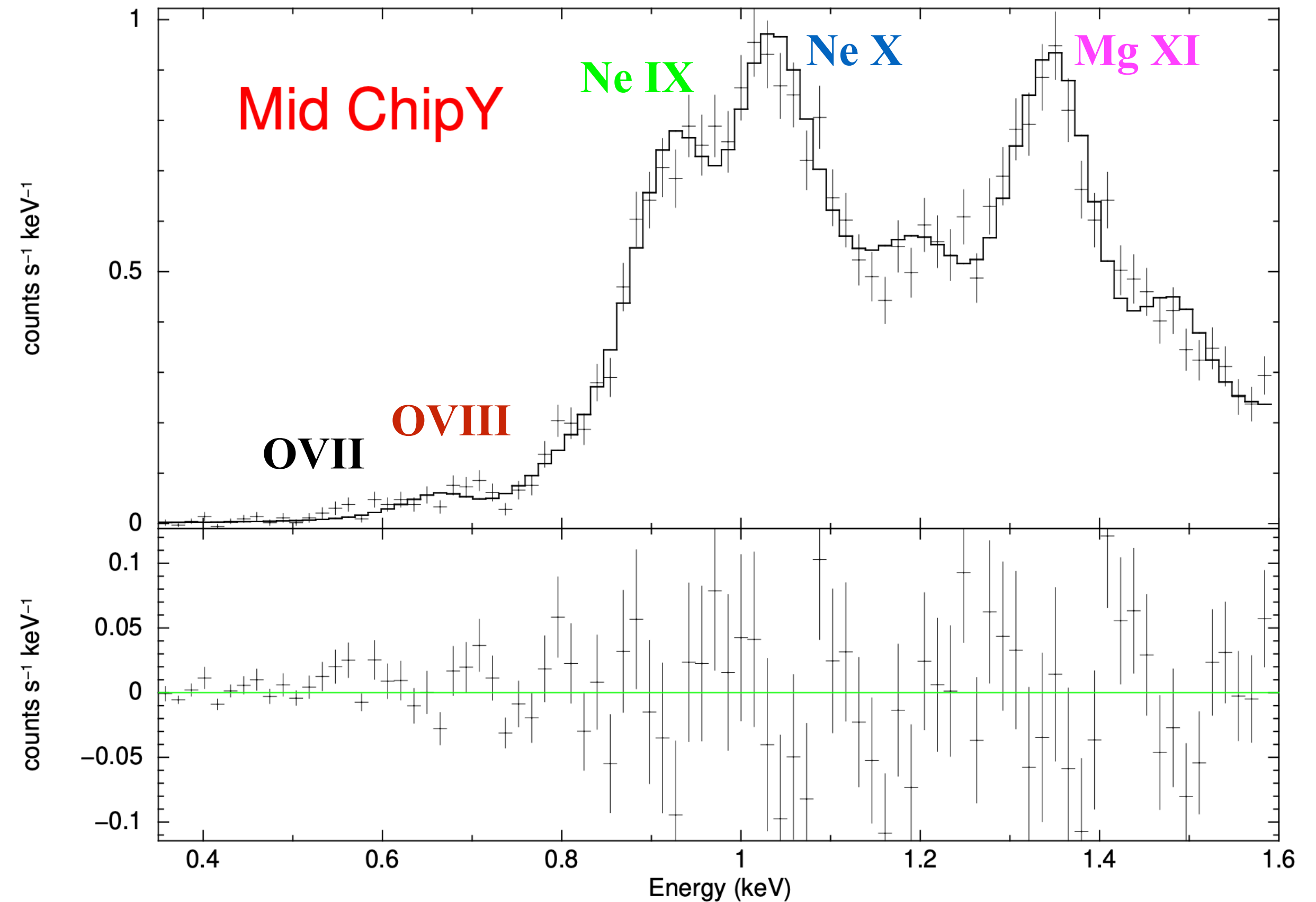
- accumulation of contaminant on ACIS affects the low energy response
- stop fitting O VII in 2021, stop fitting O VIII in 2024. Fit Mg XI for all data sets.

Ratzlaff (SAO)

2003 ACIS S3 a BI CCD OBSID 3545



2025 ACIS S3 a BI CCD OBSID 29585

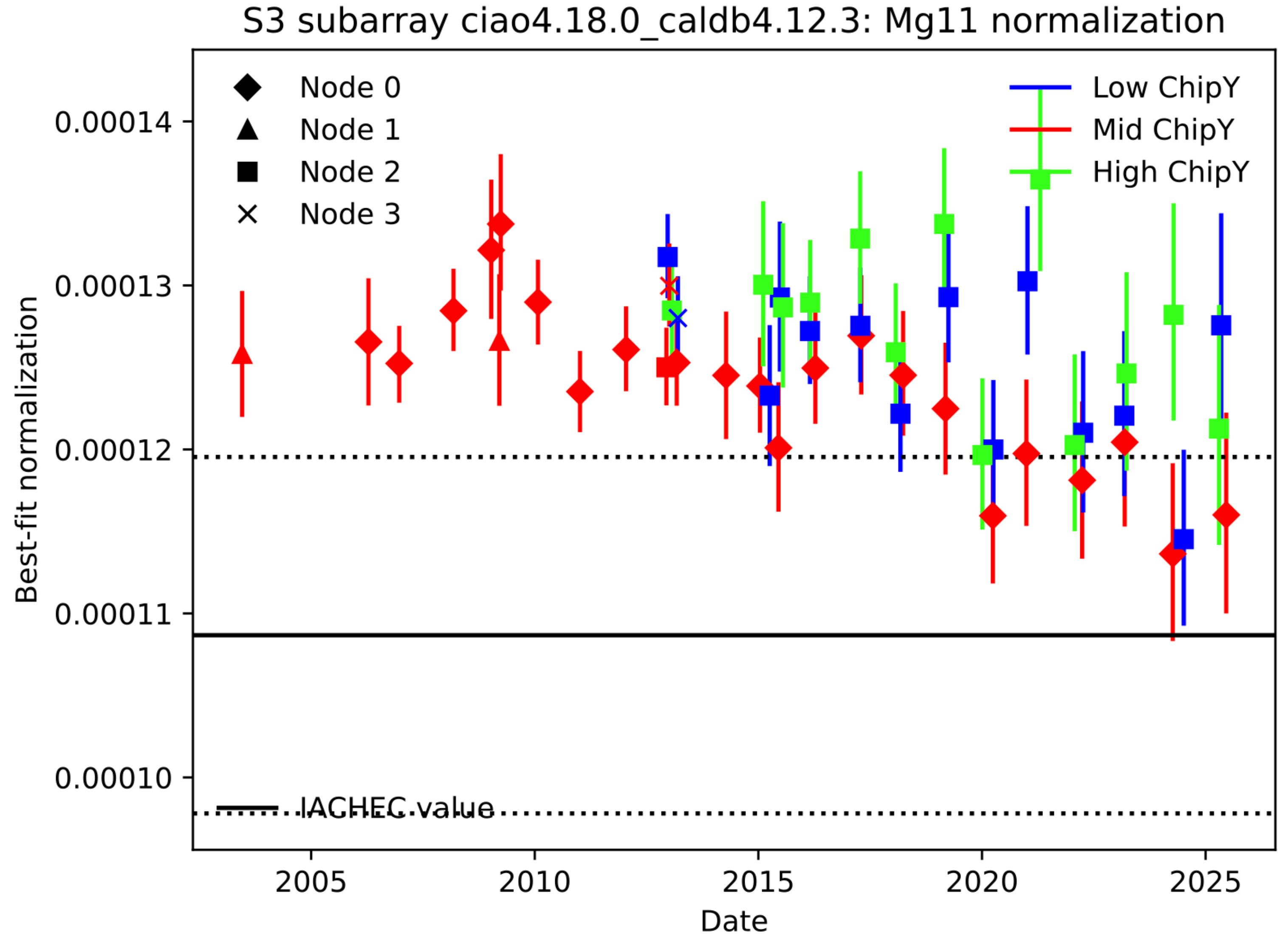




MgXI Line Normalization for 1E 0102.2-7219 (E0102)

Ratzlaff (SAO)

- S3 (a BI CCD)
- Line normalizations are 5-20% higher than the IACHEC reference value





Multi-Instrument MgXI Line Normalizations for 1E 0102.2-7219 (E0102)

Insrtrument	Constant	Constant Low	Constant Hi	Mg11	Error Lo	Error Hi
IACHEC				0.109		
RGS1	1.000	1.000	1.000			
MOS1	1.054	1.047	1.061			
MOS2	1.072	1.065	1.079			
pn	0.969	0.967	0.971			
ACIS-S3	1.068	1.057	1.080	0.120	0.117	0.124
XIS0	1.019	1.007	1.031	0.119	0.116	0.122
XIS1	1.130	1.121	1.139	0.110	0.107	0.113
XIS2	1.048	1.036	1.060	0.112	0.109	0.115
XIS3	1.024	1.012	1.036	0.125	0.122	0.129
XRT-WT	0.971	0.957	0.985			
XRT-PC	0.935	0.920	0.950			
eROSITA	0.958	0.932	0.977	0.126	0.121	0.131