

Detectors and Background WG

- Started in 2010 as CCD WG at Woods Hole
 - Not a typical IACHEC Working Group
 - Presentations and discussion
 - Topics too esoteric for larger plenary sessions
- Combined with the Background WG in 2014
- Broadened from CCDs to Detectors in 2018 (CZT! SDD!)
- Two sessions of presentations in 2019:
 - Wide range of past, current, and future missions:
 - Chandra ACIS, NuSTAR, Suzaku XIS, XMM EPIC-pn, Athena WFI & X-IFU, Einstein Probe WXT

Detectors Session, Monday

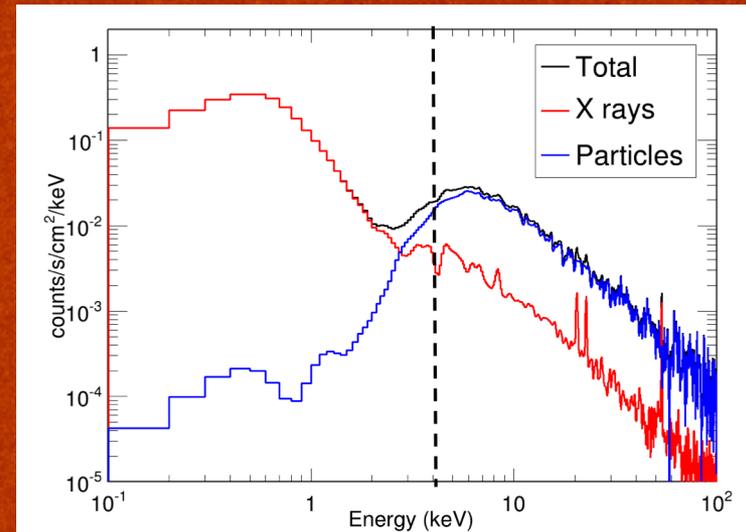
- Calibrating long term trends in gain & response due to changes in:
 - EPIC-pn CTI & quiescent background (Valtchanov)
 - ACIS CTI & Thermal Control (Durham)
 - NuSTAR Gain (Miyasaka)
- Getting the details right
 - ACIS gain droop in the central columns (Gaetz)
 - NuSTAR low-energy response (Miyasaka)
 - Suzaku XIS Si-K edge (Hayashida)
- Novel clocking mode to reduce pileup (Murakami)

Background Session, Wednesday

- Simulations for new missions
 - Athena X-IFU (Stever)
 - Athena WFI (Miller)
 - Einstein Probe WXT (Zhao)
- On-orbit measurements
 - Hitomi HXI (Suzuki)
 - Chandra ACIS (Gaetz)

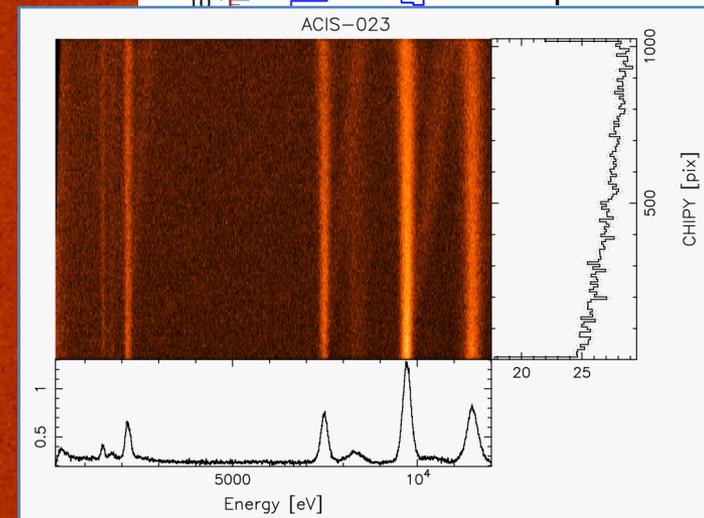
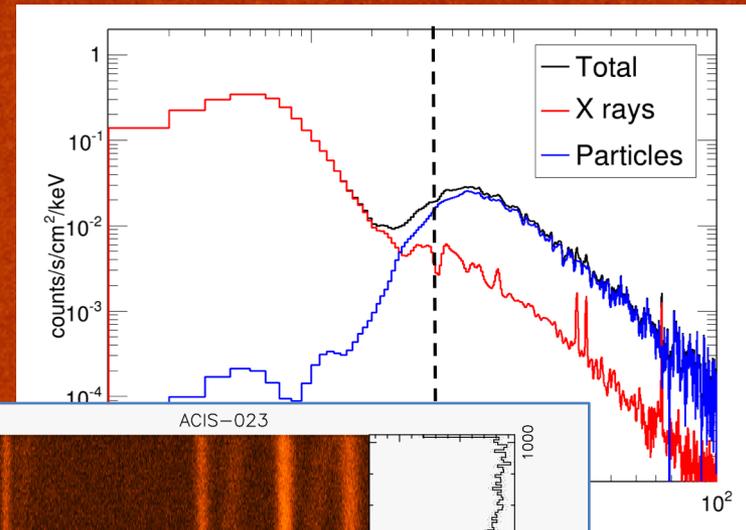
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Summary thoughts...

- As existing missions go deeper, and planned missions get more ambitious, understanding and modeling background and detector response only gets more important!
- For next year, hope to hear about:
 - Empirical background models for use in spectral fitting
 - Many separate Geant4 simulation projects, any specific issues that need discussing?
 - eROSITA!