



XMM-Newton Extended Source Analysis Software

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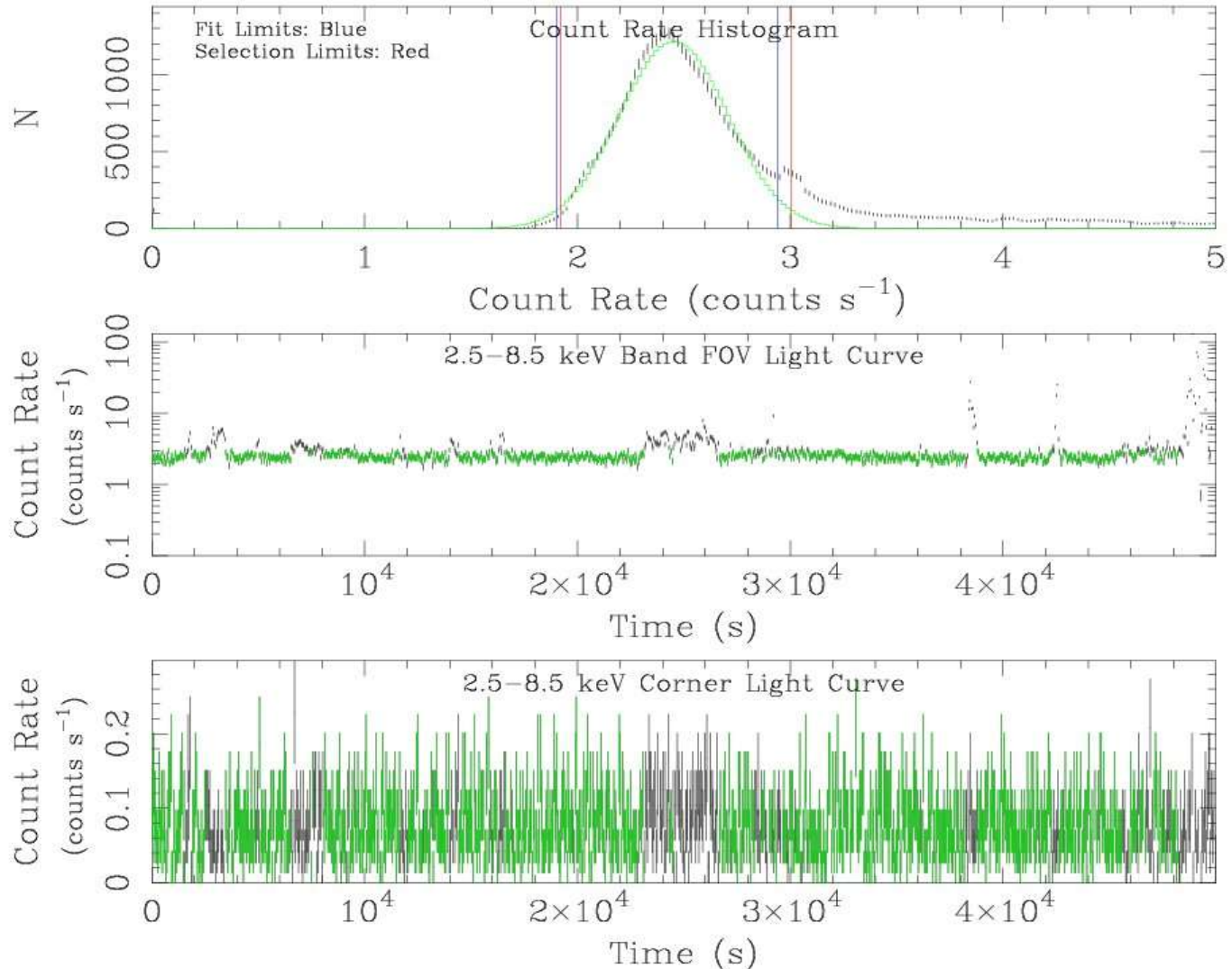
- **Publicly Released 5 April 2006**
- **XMM-Newton Extended Source Analysis Software**
 - Suite of Fortran 77 programs and Perl scripts**
- **EPIC Instruments (MOS for now)**
- **Particle Background Modeling**
 - Position Dependent Background Spectra**
 - Particle background images**
- **Creates exposure corrected, background subtracted, and adaptively smoothed images**
- **Manual/Cookbook and spectral/imaging examples including suggested treatment for other background components**
- **Future extensions**
 - Mosaicking of multiple observations**
 - Extension to PN data**



XMM-Newton Extended Source Analysis Software

Tool to process and filter data sets to remove obvious soft proton flaring.

A1795
Observation

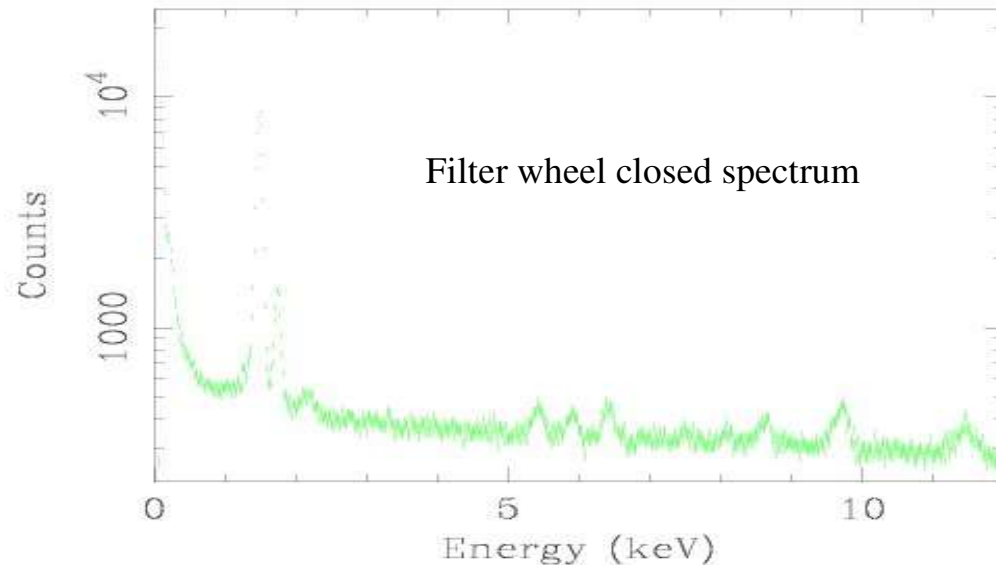
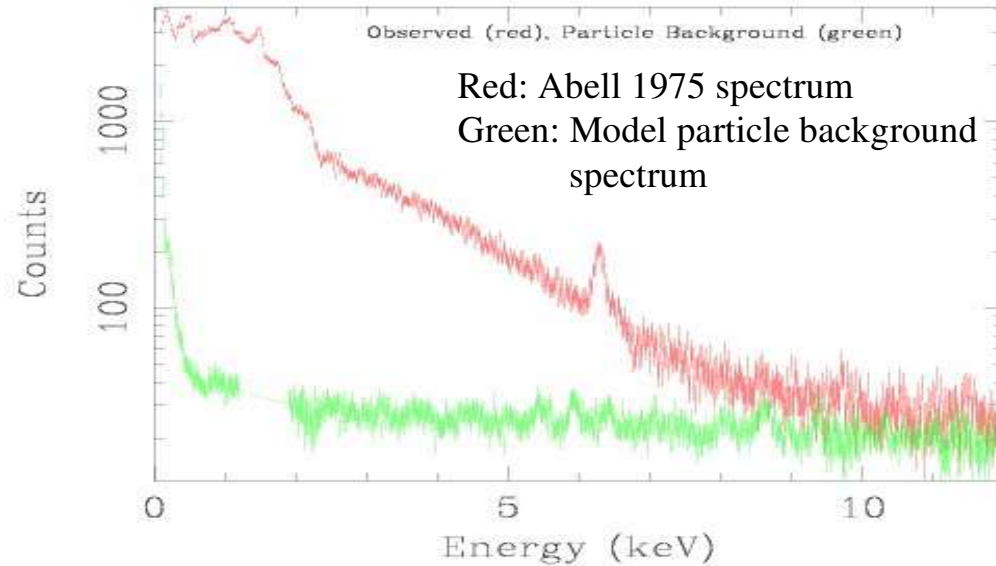




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Tool to create quiescent particle background spectra.

A1795, Model Particle Background, and Filter Wheel Closed Spectra. The difference between the observed and background spectra at high energies is residual soft proton contamination.

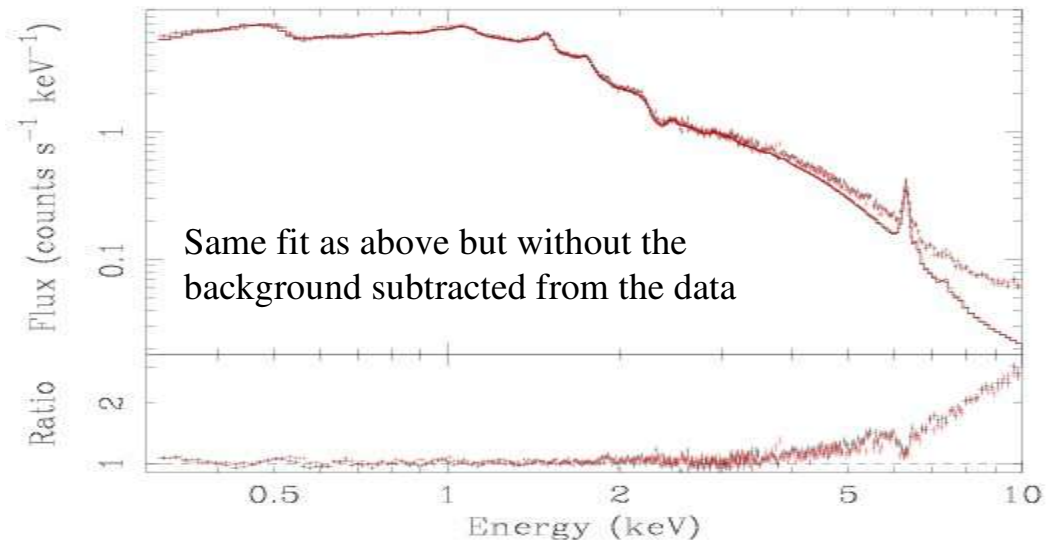
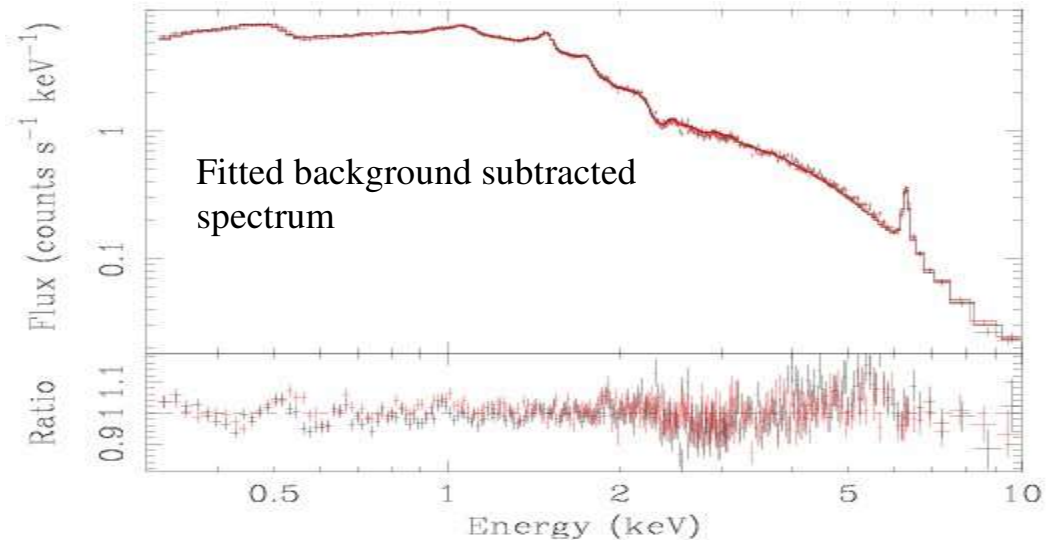




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The quiescent particle background is significant at higher energies even for bright and hard sources.

A1795 Spectrum

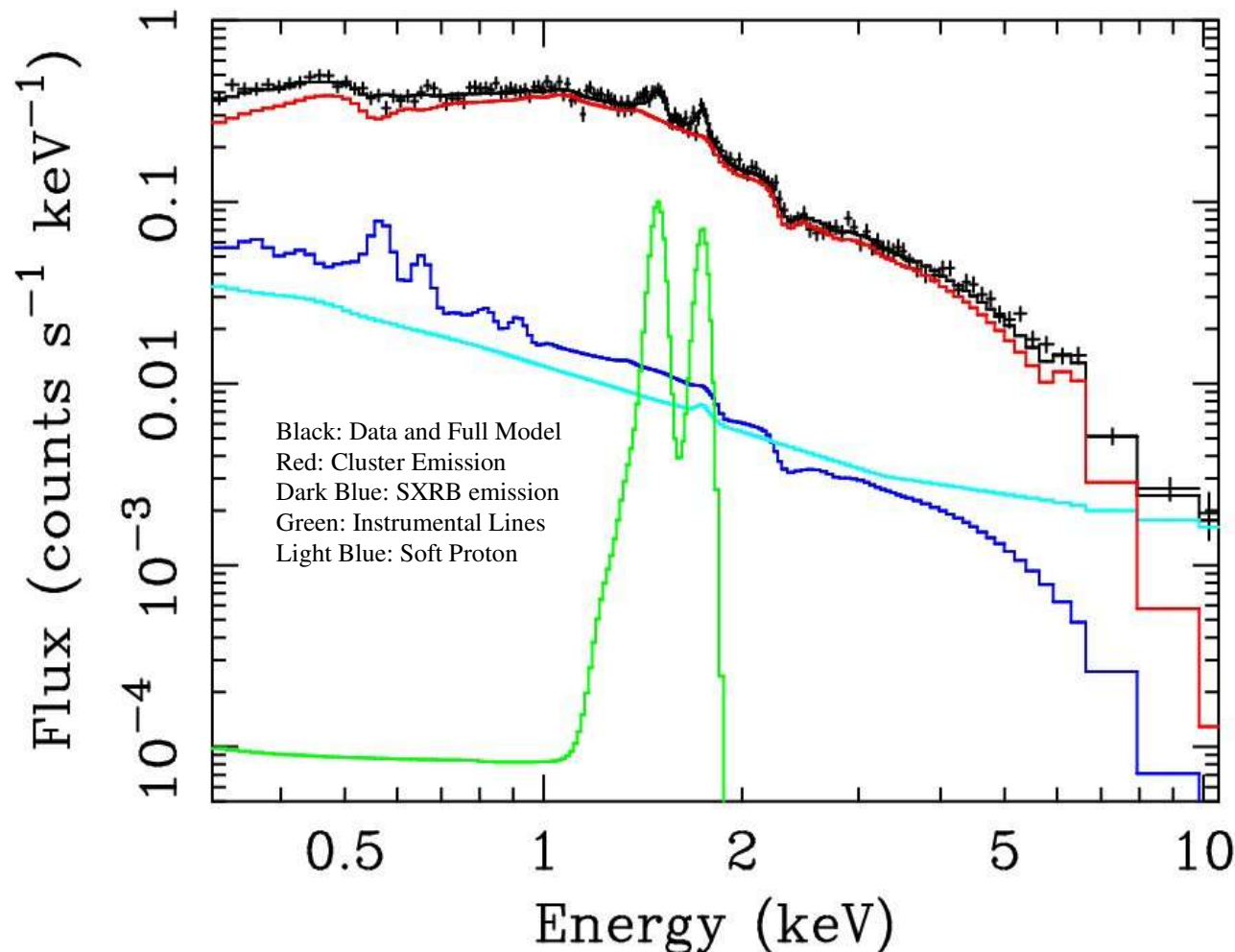




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Other background components can also be significant over various energy ranges.

A1795 Spectrum at the 5-7 arc minute annulus.

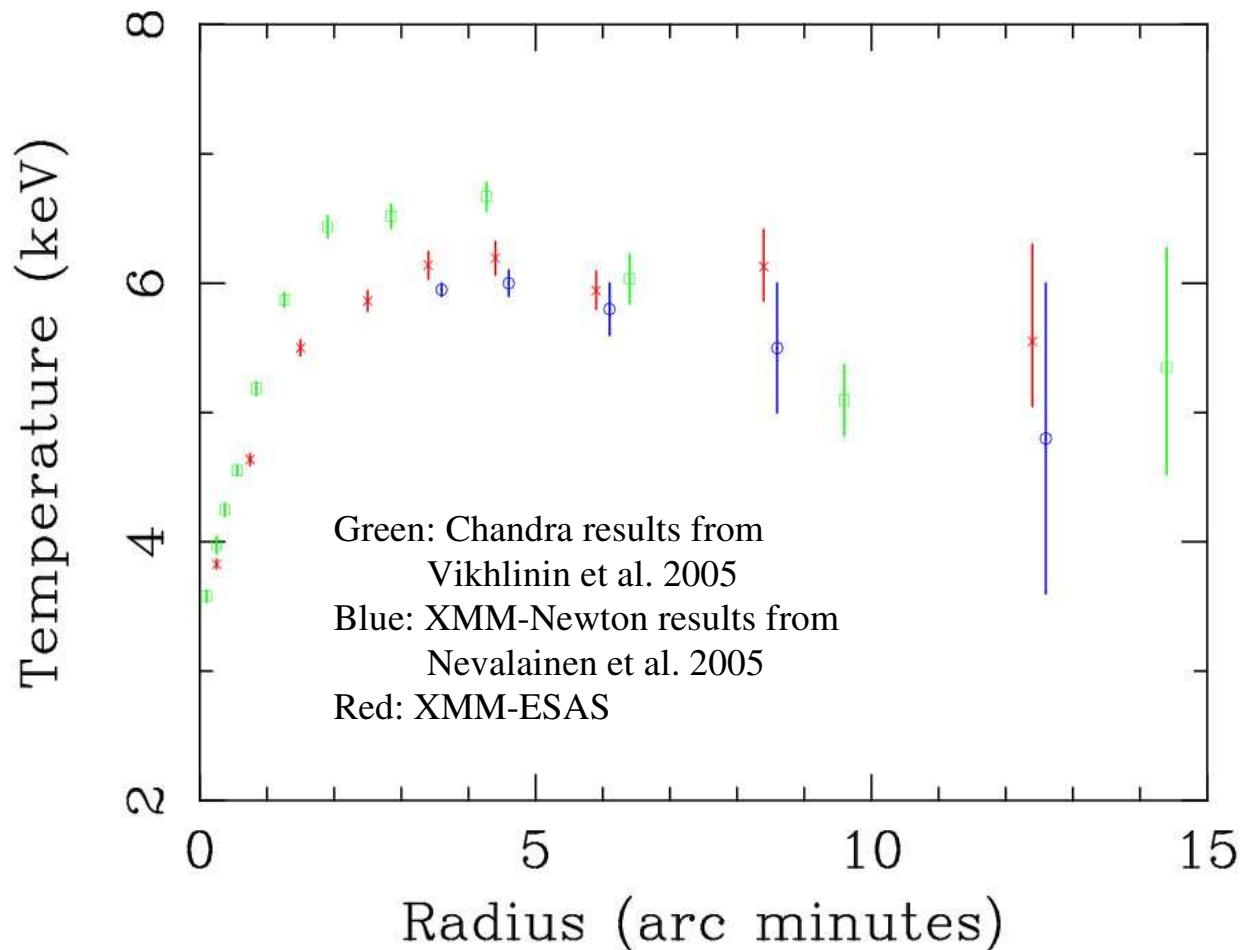




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Different observatories and different methods, and different results.

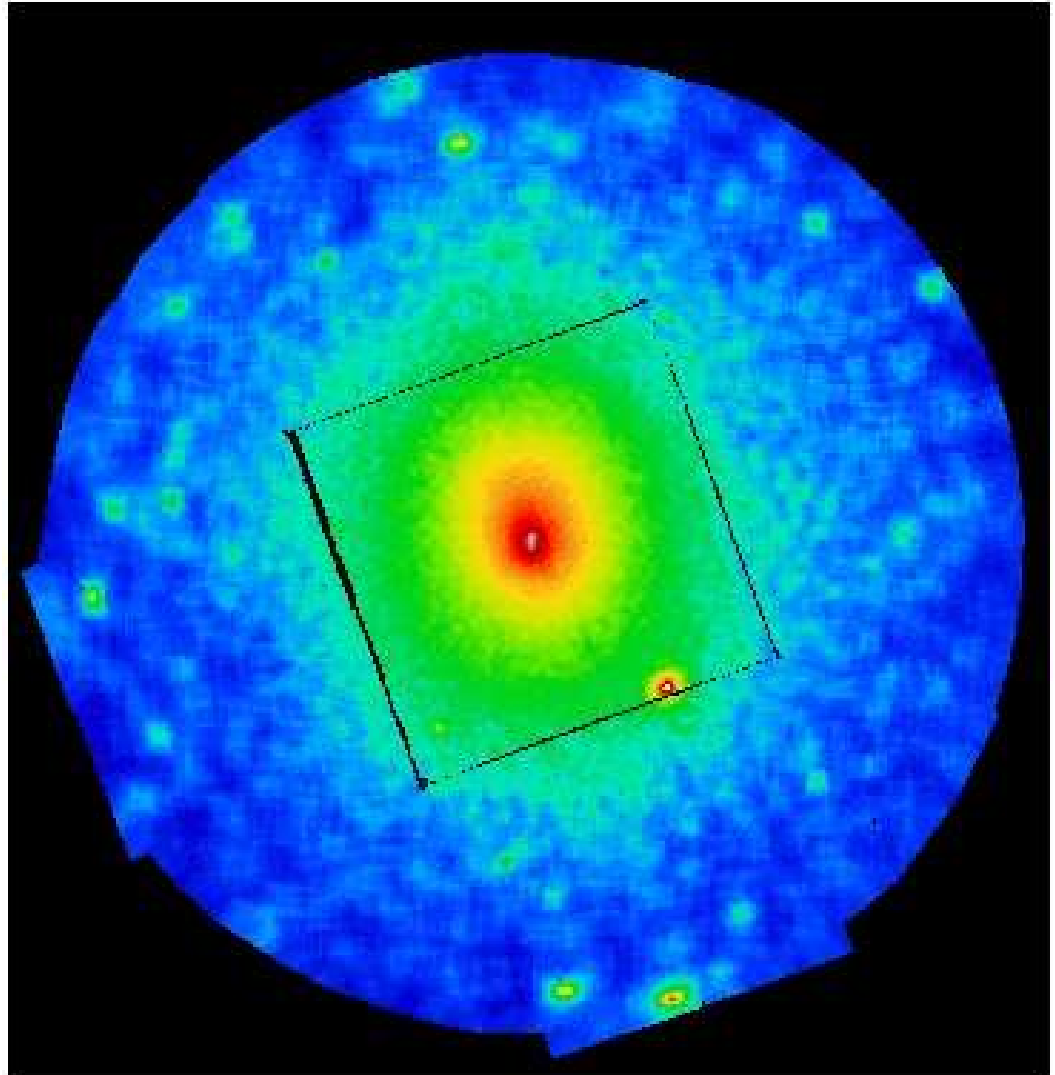
A1795 XMM-Newton and Chandra Spectra.





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Background subtracted, exposure corrected, and Adaptively smoothed image of Abell 1795 in the 0.35-1.25 keV band.





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Prototype mosaicking of Coma Cluster observations.

The data have been background subtracted, exposure corrected, normalized between adjacent pointings, and adaptively smoothed.

