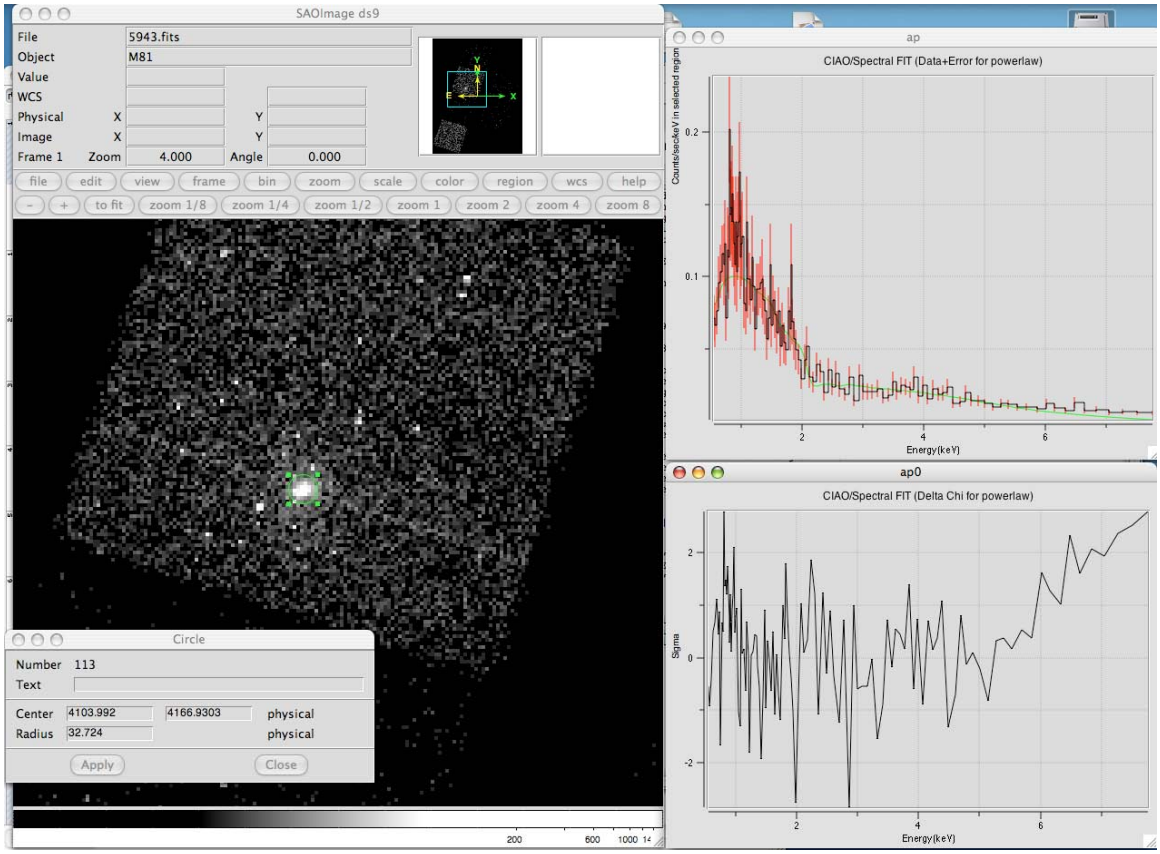
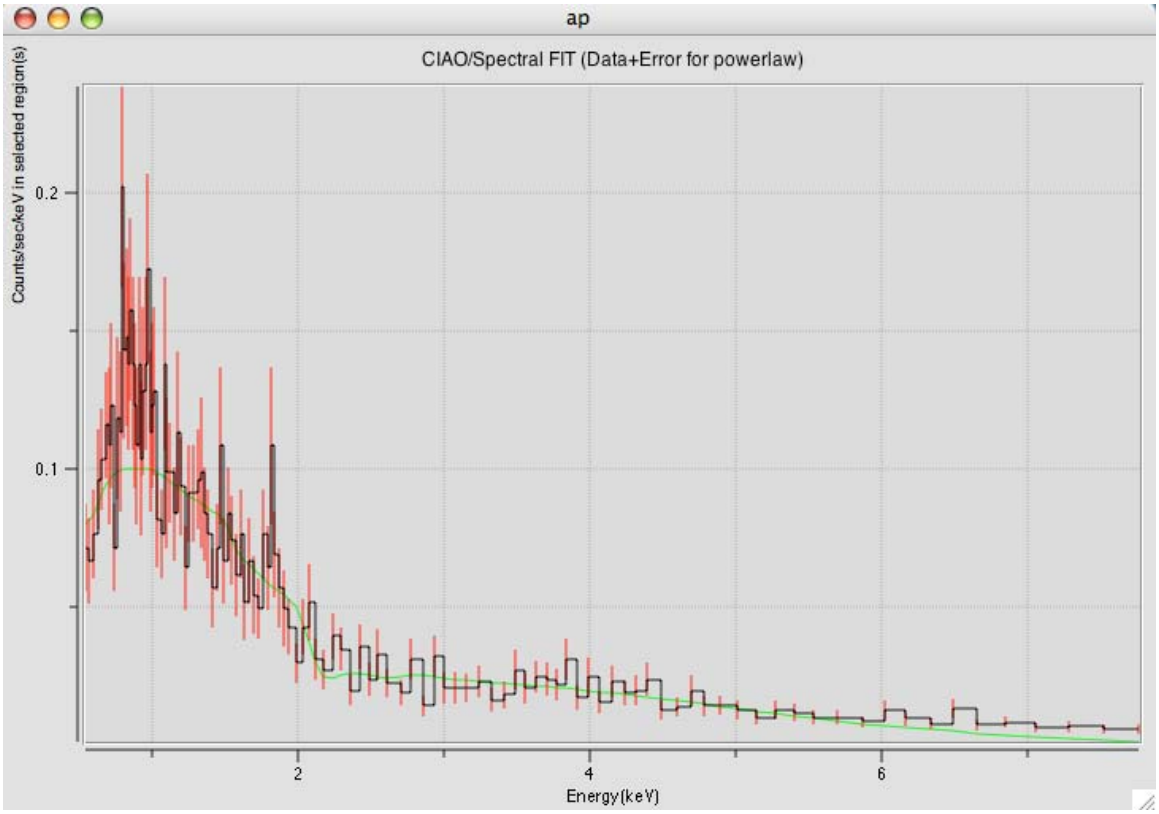
M81: Fit observation of spectrum to a power law model

ObsID 5943



Powerlaw fit:



Input File: /data/archive/5943/5943.fits
Model: powerlaw
Energy: :0.5,8:
Region:
circle(4103.992,4166.9303,32.72399)

Power law index = 0.852208

Fit performed using absorbtion model multiplied by selected model.
The first two lines below indicate the predicted flux we receive at Chandra
(i.e. what came through the absorbing dust).
The second two lines below indicate the predicted flux from selected model
if there was no absorbing dust in the way.
If the model choice is valid, this flux can be used to predict the intrinsic
luminosity of the object.

Flux for source dataset 1: 3.60644e-12 ergs/cm**2/s
Flux for source dataset 1: 0.000701817 photons/cm**2/s
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Statistic value = 145.884
Probability [Q-value] = 0.0273443
Reduced statistic = 1.26856

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************************************************************
********************** SHERPA LOG ****************************
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   Abundances set to Anders & Grevesse
Model parameter prompting is off
The inferred file type is PHA.  If this is not what you want, please
specify the type explicitly in the data command.
The inferred file type is ARF.  If this is not what you want, please
specify the type explicitly in the data command.
 LVMQT: V2.0
 LVMQT: initial statistic value = 187.178
 LVMQT: final statistic value = 145.884 at iteration 10
        a1.nH  1e-07  10^22/cm^2
        x1.gamma  0.852208
        x1.ampl  0.000166729

WARNING:
  The value of a1.nH is equal to the a1.nH.min limit boundary.
  You may wish to consider changing min/max values and refitting.

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Goodness: computed with Chi-Squared Gehrels

DataSet 1: 118 data points -- 115 degrees of freedom.
 Statistic value       = 145.884
 Probability [Q-value] = 0.0273443
 Reduced statistic     = 1.26856

Write X-Axis: Energy (keV)  Y-Axis: Flux (Counts/sec/keV)
Write X-Axis: Energy (keV)  Y-Axis: Flux (Counts/sec/keV)
Write X-Axis: Energy (keV)  Y-Axis: Errors
Write X-Axis: Energy (keV)  Y-Axis: Sigma
Write X-Axis: Energy (keV)  Y-Axis: Flux (Counts)
```

Chandra Astrophysics Institute
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