The Development and Use of a Background Map for the Chandra Source Catalog

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II. High Spatial Frequency Maps (Streak Map):

Values are smoothed in a 2D grid product of high frequency structure in the background map, so there is no under or overexposed region. This yields the desired low frequency component that is needed to achieve the streak structure. The result is a smoothed image where the under or overexposure regions are corrected. Finally, the streak structure is achieved by applying the streak map to the smoothed image. The streak map is generated by applying a high frequency structure to a smoothed image. The streak map is then convolved with the smoothed image to achieve the streak structure.

IV. Total Background Map and Source Detection:

The final background map is obtained by combining the low frequency map and the streak map. The result is a smoothed image where the under or overexposure regions are corrected. Finally, the streak structure is achieved by applying the streak map to the smoothed image. The streak map is generated by applying a high frequency structure to a smoothed image. The streak map is then convolved with the smoothed image to achieve the streak structure.

III. Low Spatial Frequency Maps (Modified Poisson Mean):

The modified Poisson mean is the result of convolving the high frequency map with a Gaussian filter. The Gaussian filter is applied to the high frequency map to smooth out the high frequency features. The result is a low frequency map that is used to remove the high frequency features from the data. The low frequency map is then added to the background map to achieve the final background map.

VI. Future Work:

In addition to creating a background map for the EXSs, we are also working on the following:

- Creating a background map for the EXSs by convolving the smoothed image with the streak map. This yields the desired low frequency component that is needed to achieve the streak structure. The result is a smoothed image where the under or overexposure regions are corrected. Finally, the streak structure is achieved by applying the streak map to the smoothed image. The streak map is generated by applying a high frequency structure to a smoothed image. The streak map is then convolved with the smoothed image to achieve the streak structure.

V. HRC Background Maps:

There are multiple background maps for the Chandra HRC observations. Two of the maps are of the HRC backgrounds:

- The HRC background map: This map is the result of convolving the high frequency map with a Gaussian filter. The Gaussian filter is applied to the high frequency map to smooth out the high frequency features. The result is a low frequency map that is used to remove the high frequency features from the data. The low frequency map is then added to the background map to achieve the final background map.

- The HRC background map: This map is the result of convolving the high frequency map with a Gaussian filter. The Gaussian filter is applied to the high frequency map to smooth out the high frequency features. The result is a low frequency map that is used to remove the high frequency features from the data. The low frequency map is then added to the background map to achieve the final background map.