

P10 Suzaku Study on the Galactic Diffuse X-ray Emission

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There is unresolved X-ray emission over the Galaxy, or Galactic diffuse X-ray emission (GDXE). The origin has been under investigation for a long time since the discovery in 1970's. Two major scenarios have been proposed. One is an integration of faint point sources such as active binaries (AB), magnetic or non-magnetic Cataclysmic Variables (mCV, non-mCV). The other is a truly diffuse emission. The most important feature of the GDXE is prominent lines of Fe at 6.40 (Ka), 6.68 (Hea), and 6.97 (Lya) keV. A Chandra deep observation at (l, b)=(0.0 deg, -1.4 deg) found that ~80% of the Fe emission is resolved into faint point sources, mainly magnetic Cataclysmic Variables (mCV). However, the fact was obtained only at the one position, which belongs to the bulge area, not to the center or ridge. And also detailed study on the Fe line band has not been performed yet. Therefore, using the Suzaku archive data, we have investigated the GDXE concentrating on the Fe line band by trying to fitting with spectral modeling of candidate point sources (AB, mCV, non-mCV). Although the bulge spectrum can be fitted by the point source model, non-mCVs dominate by ~70%. For the other areas (center and ridge), any combination of the point source models fail to fit the GDXE spectrum. Other origins than the candidate point sources should contribute to the GDXE. We will discuss origins of the GDXE.

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