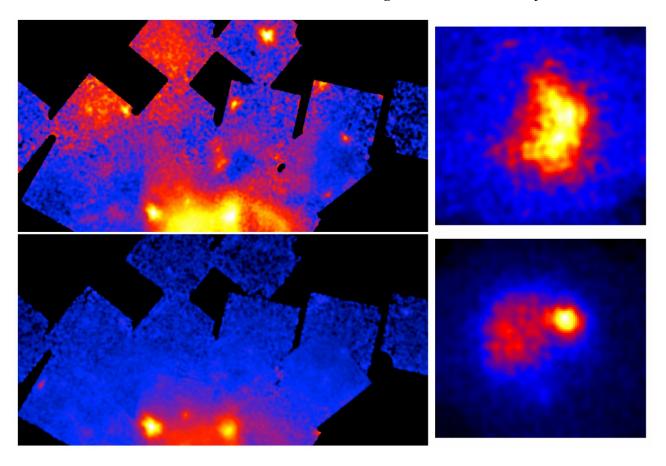
Observational study of high energy phenomena with X-ray satellites

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X-ray images of the Galactic center region (left) and supernova remnants (right-upper and right-lower).

Various high-energy phenomena occur in the Universe. They produce high temperature plasmas. Almost astronomical objects have such high temperature plasmas. I investigate mechanisms of high-energy phenomena to produce such high temperature plasmas by analyzing data obtained with X-ray satellites. Main subjects are origin of the diffuse X-ray emission in galaxies, activities of a super massive black hole located at the Galactic center and its vicinity, property and evolution of hot plasmas found in supernova remnants, and activities of young stars in star forming regions.

Keywords: X-ray astronomy, high-energy phenomena, Milky way, Supernova remnants, Star formation