Young stars around the Horsehead Nebula


ABSTRACT

The Horsehead nebula is a bright, dark nebula located in the Orion region, where star formation is taking place. Deep ROSAT X-ray observations reveal a variety of objects, from young T-Tauri stars to older, evolved stars. These observations provide insights into the processes of star formation and evolution within this region.

MAIN OBJECTIVES FOR THE CHANDRA OBSERVATIONS:

- Provide unprecedented X-ray snapshots of this nearby young stellar association.
- Study the unknown X-ray properties of the young stars, including their magnetic activity and outflow properties.
- Understand the X-ray emission of young stars with different stellar parameters, such as masses, ages, and metallicities.

The observational data collected by the Chandra X-ray Observatory are crucial for advancing our understanding of star formation and the evolution of young stellar objects.