The Hard X-ray Emission From Scorpius X-1 As Seen By INTEGRAL

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Source of Acquisition
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Abstract

We present the results of our hard X-ray and gamma ray study of the X-ray and gamma ray sources of the Scorpius X-1 (Sco X-1) system. The system includes a high-luminosity source of Scorpius X-1, and a low-luminosity source of Scorpius X-1. The X-ray source is a black hole X-ray binary, consisting of a low magnetic field neutron star and a supergiant in a high-luminosity system. The source of Scorpius X-1 is a low-mass X-ray binary, consisting of a low magnetic field neutron star and a supergiant in a high-luminosity system.

Introduction

Sco X-1 is the prototype low-mass X-ray binary (LMXB), consisting of a low magnetic field neutron star and a supergiant in a high-luminosity system. The source of Scorpius X-1 is a low-mass X-ray binary, consisting of a low magnetic field neutron star and a supergiant in a high-luminosity system.

Correlation of Spectral State with Color-Intensity

We present the results of our hard X-ray and gamma ray study of the X-ray and gamma ray sources of the Scorpius X-1 (Sco X-1) system. The system includes a high-luminosity source of Scorpius X-1, and a low-luminosity source of Scorpius X-1. The X-ray source is a black hole X-ray binary, consisting of a low magnetic field neutron star and a supergiant in a high-luminosity system. The source of Scorpius X-1 is a low-mass X-ray binary, consisting of a low magnetic field neutron star and a supergiant in a high-luminosity system.

Correlation of Spectral State with Color-Color Position

We present the results of our hard X-ray and gamma ray study of the X-ray and gamma ray sources of the Scorpius X-1 (Sco X-1) system. The system includes a high-luminosity source of Scorpius X-1, and a low-luminosity source of Scorpius X-1. The X-ray source is a black hole X-ray binary, consisting of a low magnetic field neutron star and a supergiant in a high-luminosity system. The source of Scorpius X-1 is a low-mass X-ray binary, consisting of a low magnetic field neutron star and a supergiant in a high-luminosity system.

Observations & Data Analysis

INTEGRAL was launched on 15 October 2002. We present results from the INTEGRAL GRK and INTEGRAL IBIS/ISGRI data. We also present results from the INTEGRAL IBIS/ISGRI data. We also present results from the INTEGRAL IBIS/ISGRI data. We also present results from the INTEGRAL IBIS/ISGRI data.

Conclusions

We present the results of our hard X-ray and gamma ray study of the X-ray and gamma ray sources of the Scorpius X-1 (Sco X-1) system. The system includes a high-luminosity source of Scorpius X-1, and a low-luminosity source of Scorpius X-1. The X-ray source is a black hole X-ray binary, consisting of a low magnetic field neutron star and a supergiant in a high-luminosity system. The source of Scorpius X-1 is a low-mass X-ray binary, consisting of a low magnetic field neutron star and a supergiant in a high-luminosity system.

References


Figure 1: Color-Intensity diagram for Sco X-1 from IBIS/ISGRI data. Each data point represents 2 hours of data. The diagram shows distinct hard and soft spectral states.

Figure 2: Count spectra for the 4 states illustrated in Figure 1. High-Hard = Blue, High-Soft = Black, Low-Hard = Green, and Low-Soft = Red.

Figure 3: A Sco X-1 X-ray color-color diagram derived from INTEGRAL data. The data were chosen to be consistent with the INTEGRAL observations. We then constructed average spectra for each of those time periods. Those spectra are shown in Figure 2.

Figure 4: Count spectra for the 4 states illustrated in Figure 1. We then constructed average spectra for each of those time periods. Those spectra are shown in Figure 2.