

XSS J00564+4548 and IGR J00234+6141: New cataclysmic variables from the RXTE and INTEGRAL all-sky surveys

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Abstract

We present the results of our optical identification of two X-ray sources from the RXTE and INTEGRAL all-sky surveys: XSS J00564+4548 and IGR J00234+6141. Using optical observations with the 1.5-m Russian-Turkish Telescope (RTT150) and publicly accessible X-ray data from the SWIFT Orbital Observatory, we show that these sources are most likely intermediate polars, i.e., binary systems with accreting white dwarfs that possess a moderately strong magnetic field (≤ 10 MG). We have found periodic optical oscillations with periods of ≈ 480 and ≈ 570 s. These periods most likely correspond to the rotation periods of the white dwarfs in these systems. Further optical RTT150 observations of these systems will allow their parameters to be studied in more detail. © Pleiades Publishing, Inc., 2006.

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Keywords

Cataclysmic variables, Intermediate polars, Optical observations, X-ray sources