

Investigation of a New Mira Star Near an X-Ray Source

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Star Name:	1RXS J190331.9+104353, EQ J190331.9+104353.1
Coordinates (J2000):	19 03 31.960, +10 43 53.17, 2000
Variability type:	M; Limits, System: 14.28 - 17.09 (R); Spectrum: M
Period:	308 d; Epoch(max): JD 2454000

Remarks:

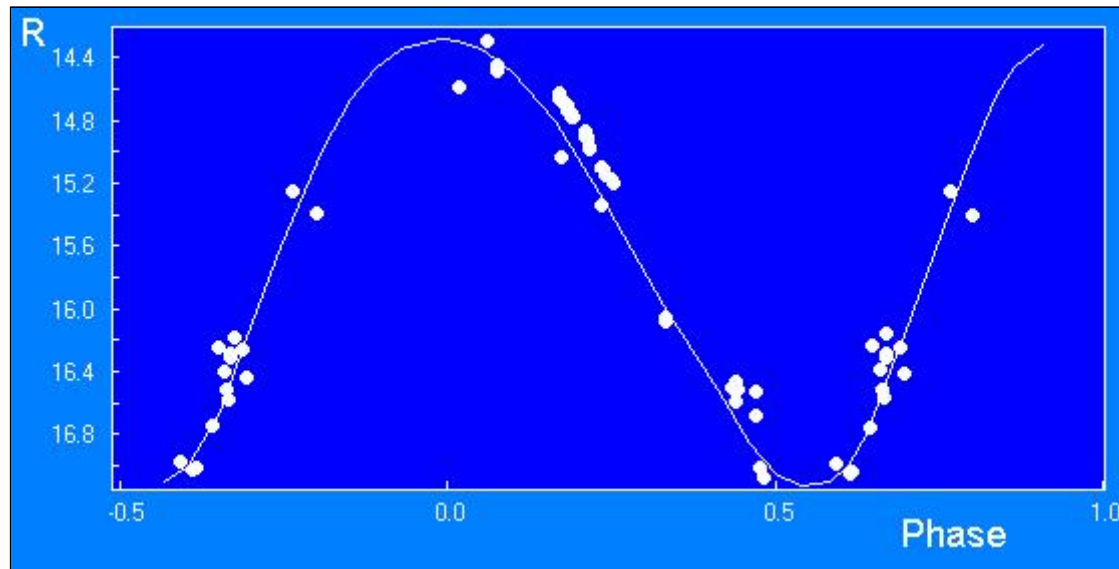
This variable star was discovered by Barsukova (2004) in the vicinity of the hard X-ray source and microquasar candidate 1RXS J190333.1+104355 (Paredes et al., 2003). The X-ray source is associated with an NVSS radio source. Our variable star is located outside the error circles of these sources but very close to the western border of the ROSAT X-ray error circle. It has a faint companion in 2" to the south-west, with the R_c magnitude of 16.5. The companion's contribution was removed from the combined light. The period determination is based on 52 CCD R_c observations taken with the 1-m telescope of the Special Astrophysical Observatory (Russian Academy of Sciences) between JD 2452787 and 2454023. The light curve shape is typical of Mira Ceti type stars. The V-R_c color near the light maxima is 3.0 mag. No evidence for a physical association between this star and the X-ray and radio sources was found.

References:

Barsukova, E.A., 2004, IBVS 5510

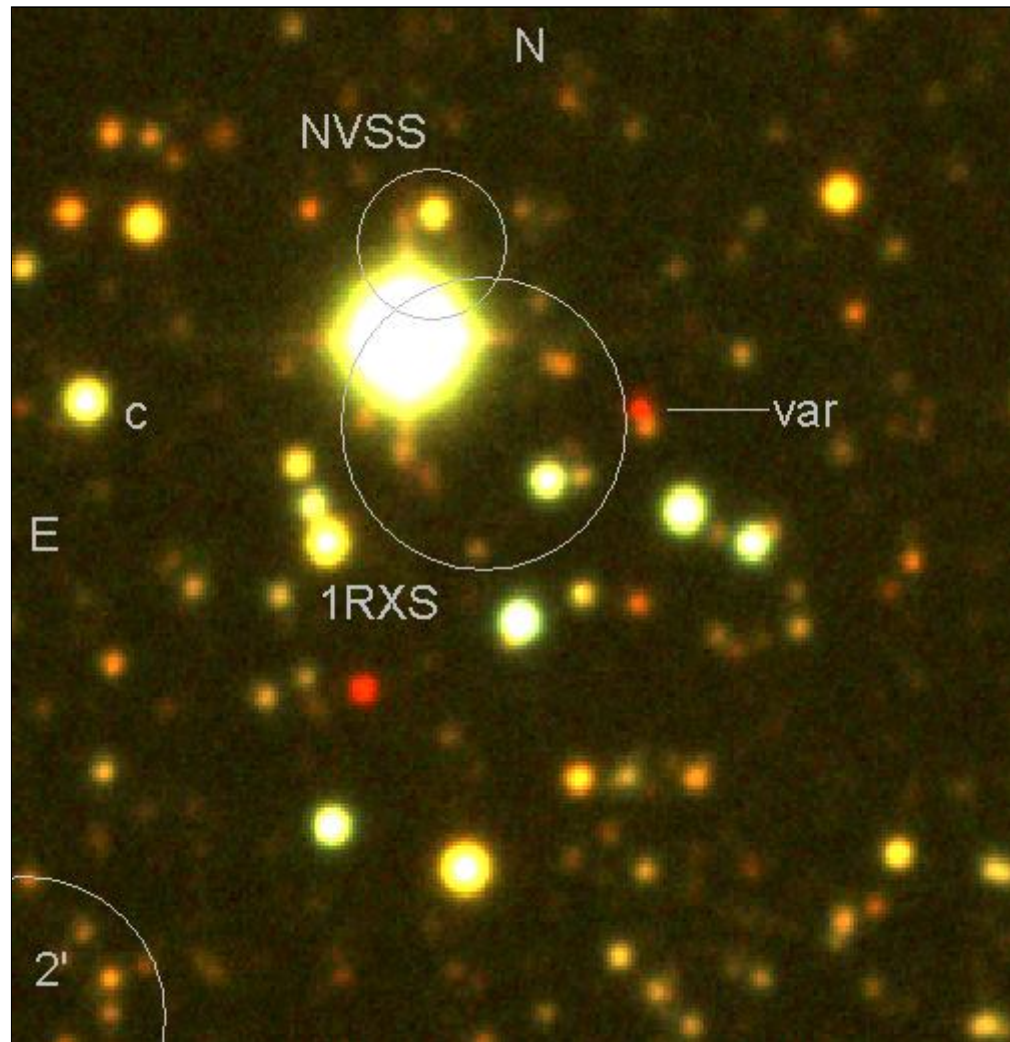
Paredes, J.M., Ribo, M., Marti, J., 2003, New Views of Microquasars. Ed. Ph. Durouchoux & J. Rodriguez, Centre for Space Physics, Kolkata, India, p.371

Light Curve



The light curve folded with the period of 308 days.

Finding Chart



A colour CCD image reconstructed from the BVR frames taken on 2005 August 7. The error circles of the 1RXS X-ray source and NVSS radio source are shown. "c" is the comparison star, its BVR_{cl}c magnitudes are respectively 18.01, 15.69, 14.08, 12.95.

Data Source

1. [bvar.dat](#)