

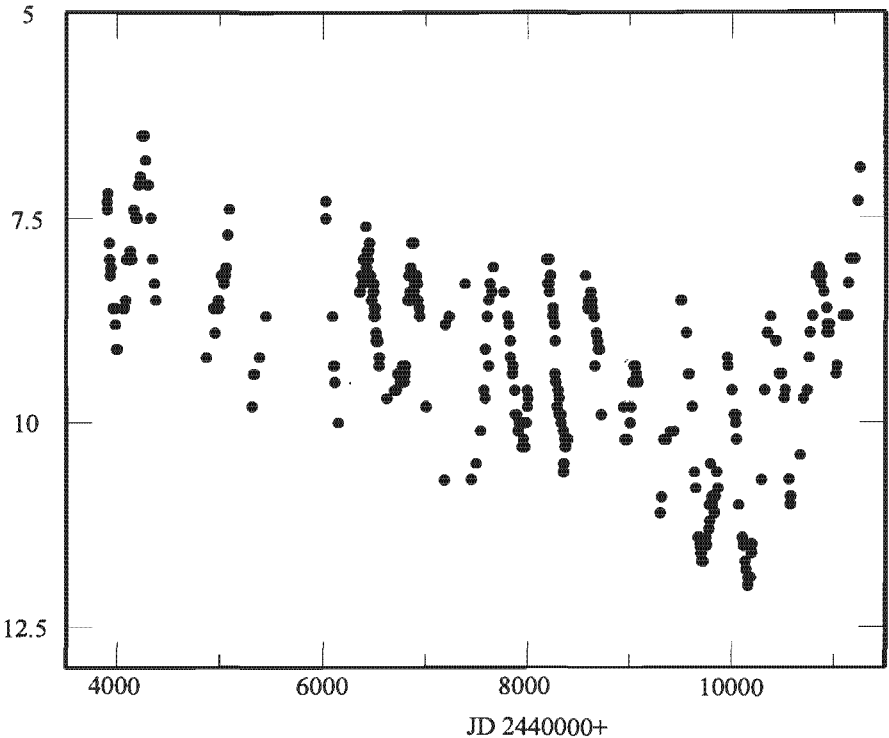
POSTER PAPERS

The Visual Light Curve of R Lep

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The visual light curve of R Lep, obtained principally by amateur astronomers working for the AAVSO, shows typical LPV variations with superimposed fading episodes at intervals of about 50 years when the 420 day period persists but the whole light curve is fainter by 2 mag or more. R Lep had been fading slowly for some years but a sharper deep fading lasted from 1994 to 1998; the 1999 maximum was the brightest for some years. The writer covered this five year period with observations using a 6-inch reflector at his home in Rondebosch. R Lep reached about mag 12 at minimum, beyond the limit of the AAVSO comparison star sequence which was extended by photometry of 3 fainter stars by Francois van Wyk using the 0.5m telescope at Sutherland. Concurrent spectroscopic observations with the 1.9m telescope show that in both R Lep and V Hya, which fades by over 3 mag every 19 years, the normal absorption in the Swan bands of diatomic carbon is replaced by emission. (Lloyd Evans, T. (1997) *MNRAS*, 286, 839)



The visual light curve of R Lep, based on ASSA VSS measures to April 1994 and observations by T. Lloyd Evans from May 1994 to date. TLE used new faint standard stars determined at Sutherland for the faint minima around JD 2450000.