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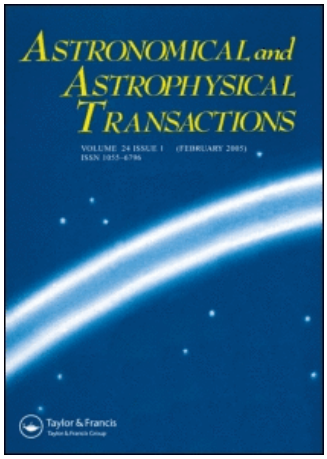

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Photoelectric observations of southern Cepheids in 2004

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Photoelectric observations of southern Cepheids in 2004

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In March and April 2004, 2808 photoelectric VI_C brightness measurements were made for 113 Cepheids using the 0.6 m reflector of the Siding Spring Observatory (Australia). V light curves and $V - I_C$ colour curves are presented.

Keywords: Cepheids; Photometry

1. Introduction

This work continues our programme of photoelectric monitoring of southern-hemisphere Cepheids, the main goals of which were described in our previous paper [1].

2. Observational data

The photoelectric observations were performed between 7 March and 21 April 2004 (Julian dates (JDs) 2 453 073–2 453 118) with the 0.6 m reflector of the Siding Spring Observatory (Australia), equipped with a pulse-counting photoelectric photometer, designated as the 'motorized filter box' unit, which is a single-channel instrument with a computer-controlled filter wheel. The photometer is a cooled unit with a Hamamatsu GaAs photomultiplier tube that was used with Cape system VI_C filters selected to match the Kron–Cousins photometric system described by Cousins [2]. A description of the observing techniques and reduction procedure can be found in [1]. The magnitudes of the observational uncertainties are close to 0.02 in all bands.

We have obtained a total of 2808 VI_C measurements for 113 Cepheids, which are plotted in figures 1–13. The observations themselves are available on request.

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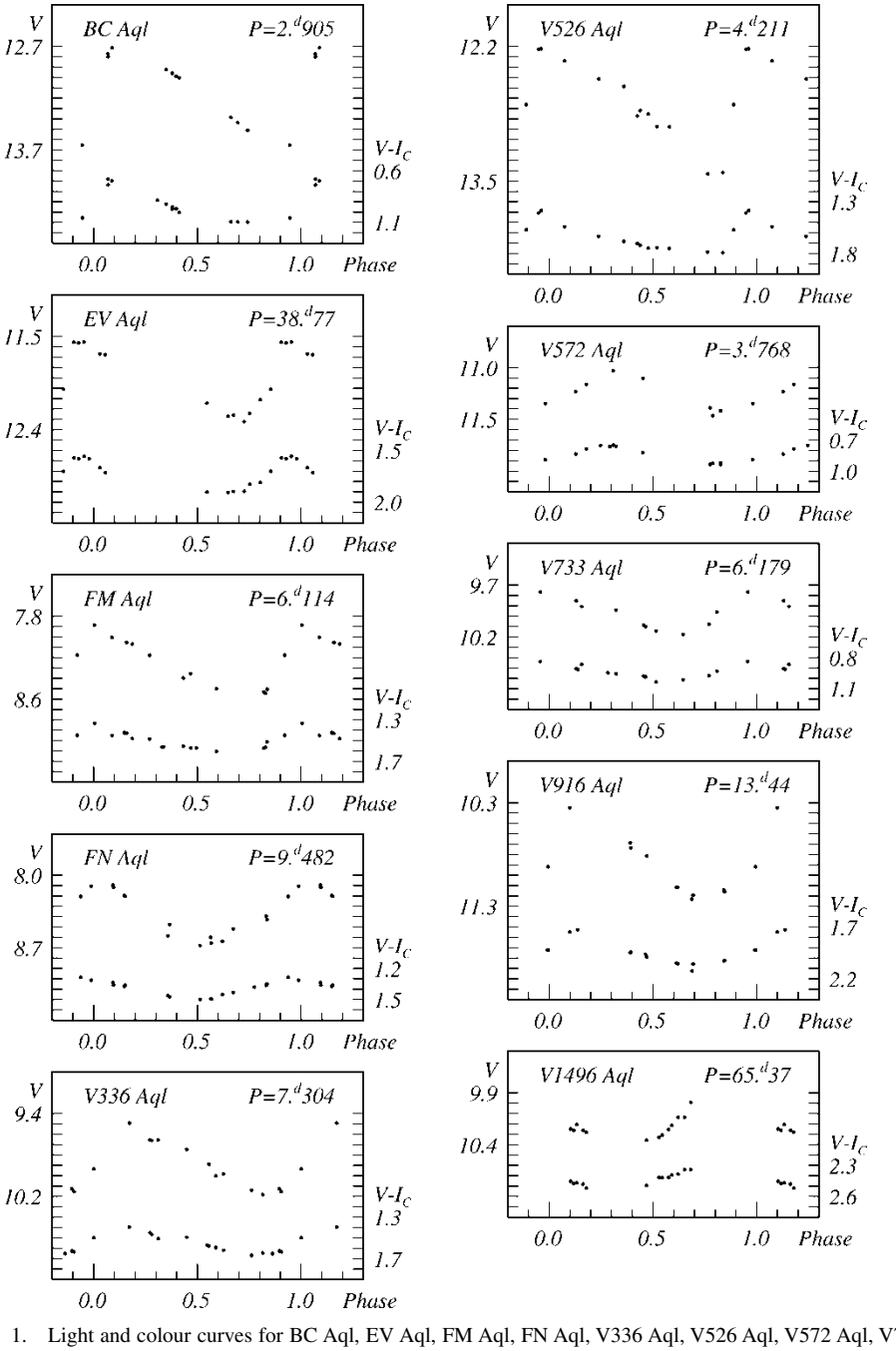

Figure 1. Light and colour curves for BC Aql, EV Aql, FM Aql, FN Aql, V336 Aql, V526 Aql, V572 Aql, V733 Aql, V916 Aql and V1496 Aql.

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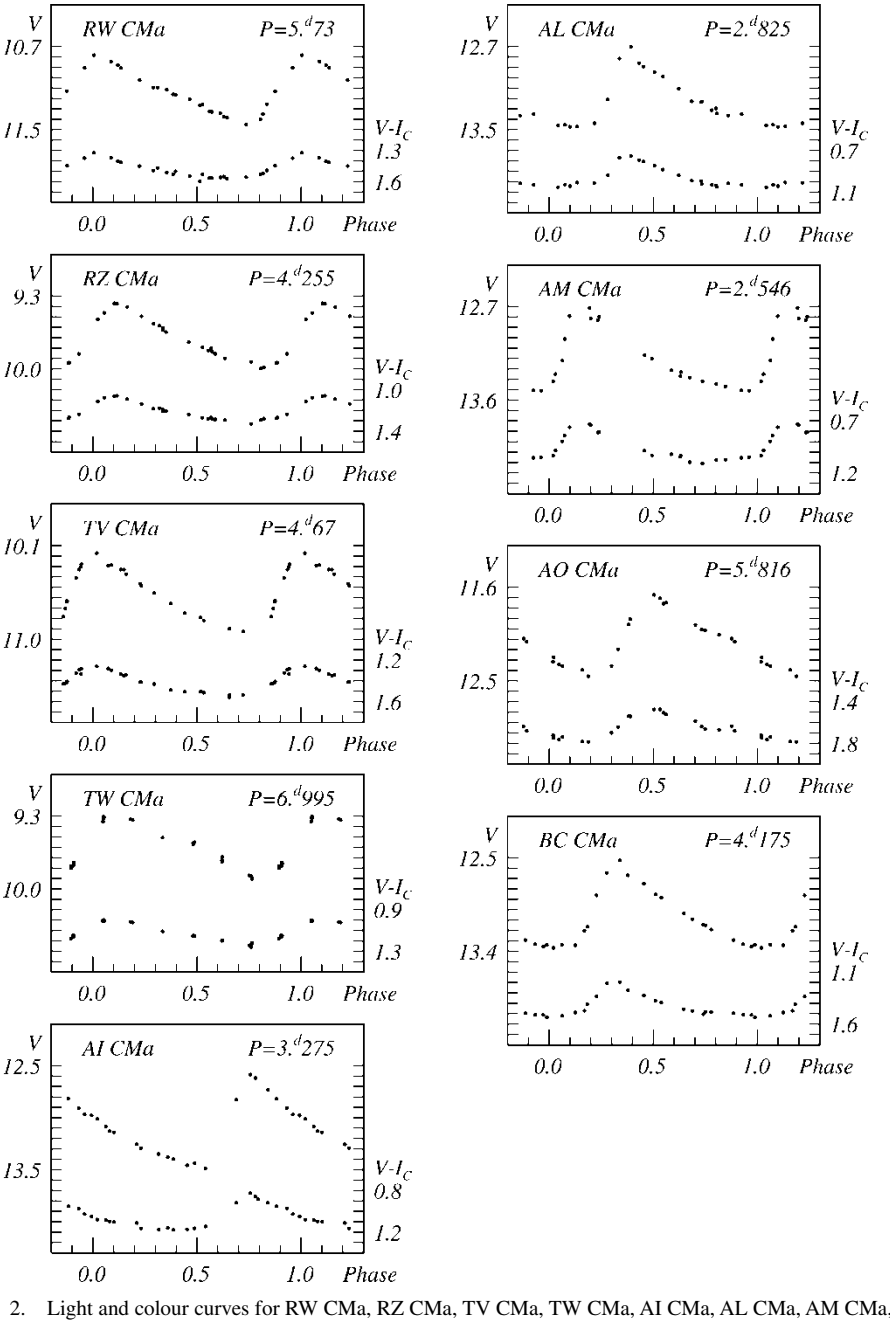

Figure 2. Light and colour curves for RW CMa, RZ CMa, TV CMa, TW CMa, AI CMa, AL CMa, AM CMa, AO CMa and BC CMa.

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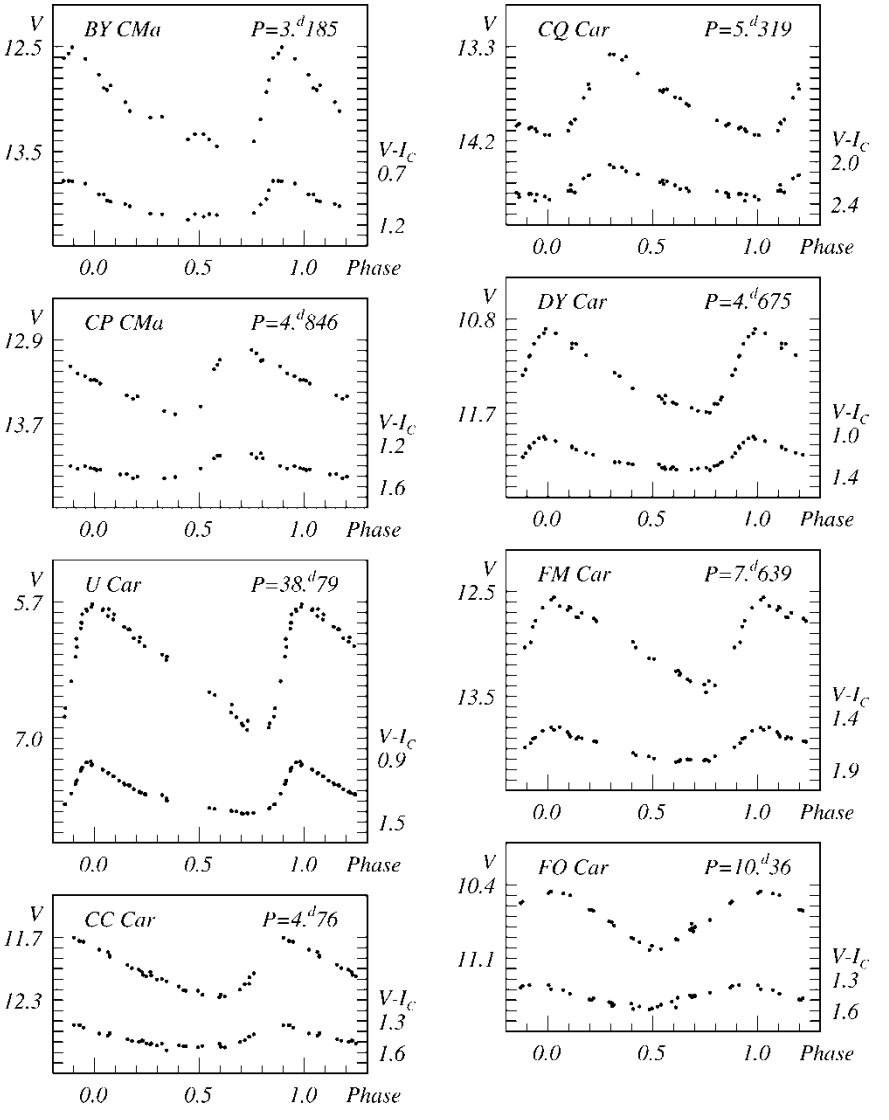

Figure 3. Light and colour curves for BY CMa, CP CMa, U Car, CC Car, CQ Car, DY Car, FM Car and FO Car.

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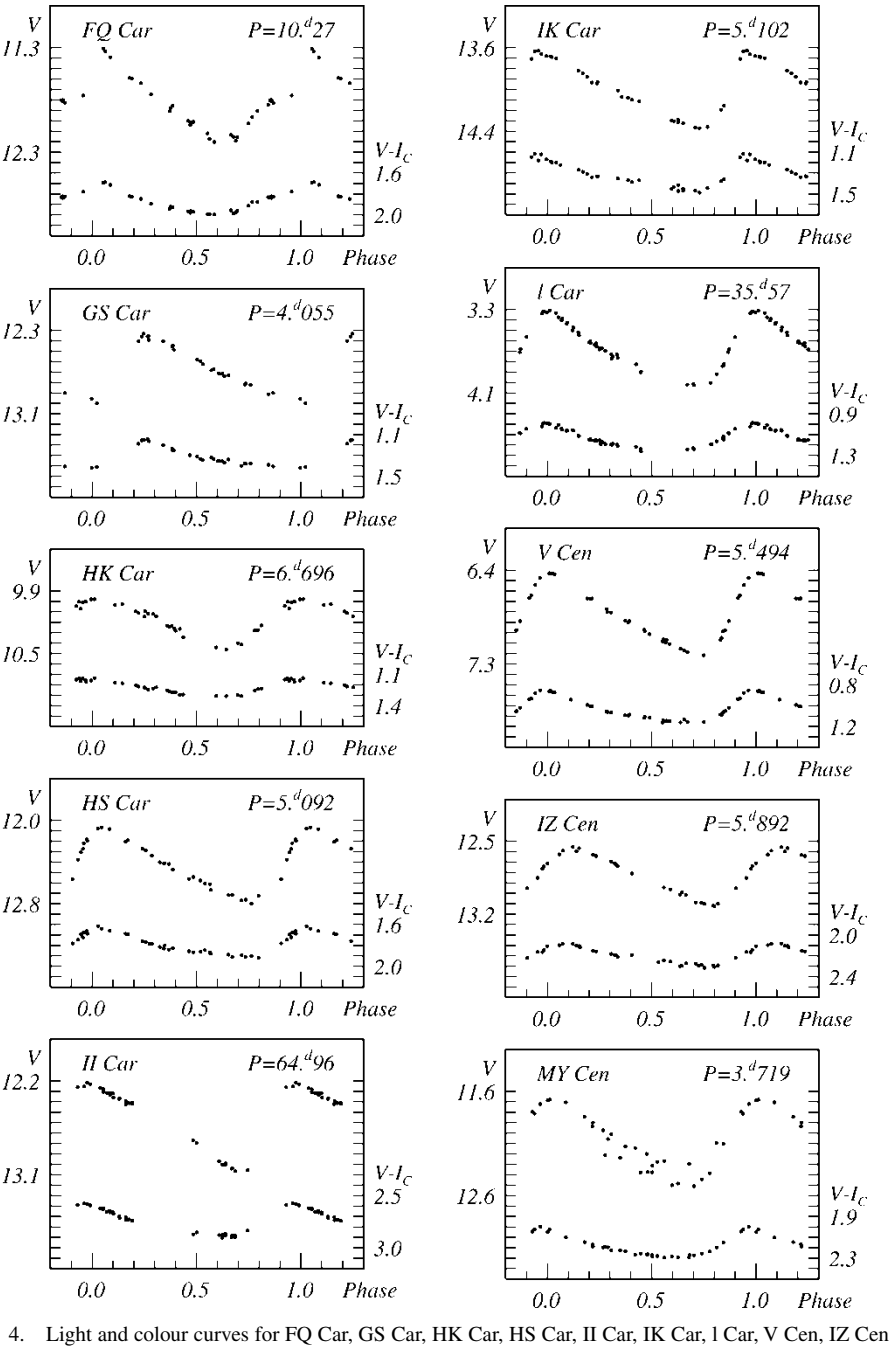

Figure 4. Light and colour curves for FQ Car, GS Car, HK Car, HS Car, II Car, IK Car, l Car, V Cen, IZ Cen and MY Cen.

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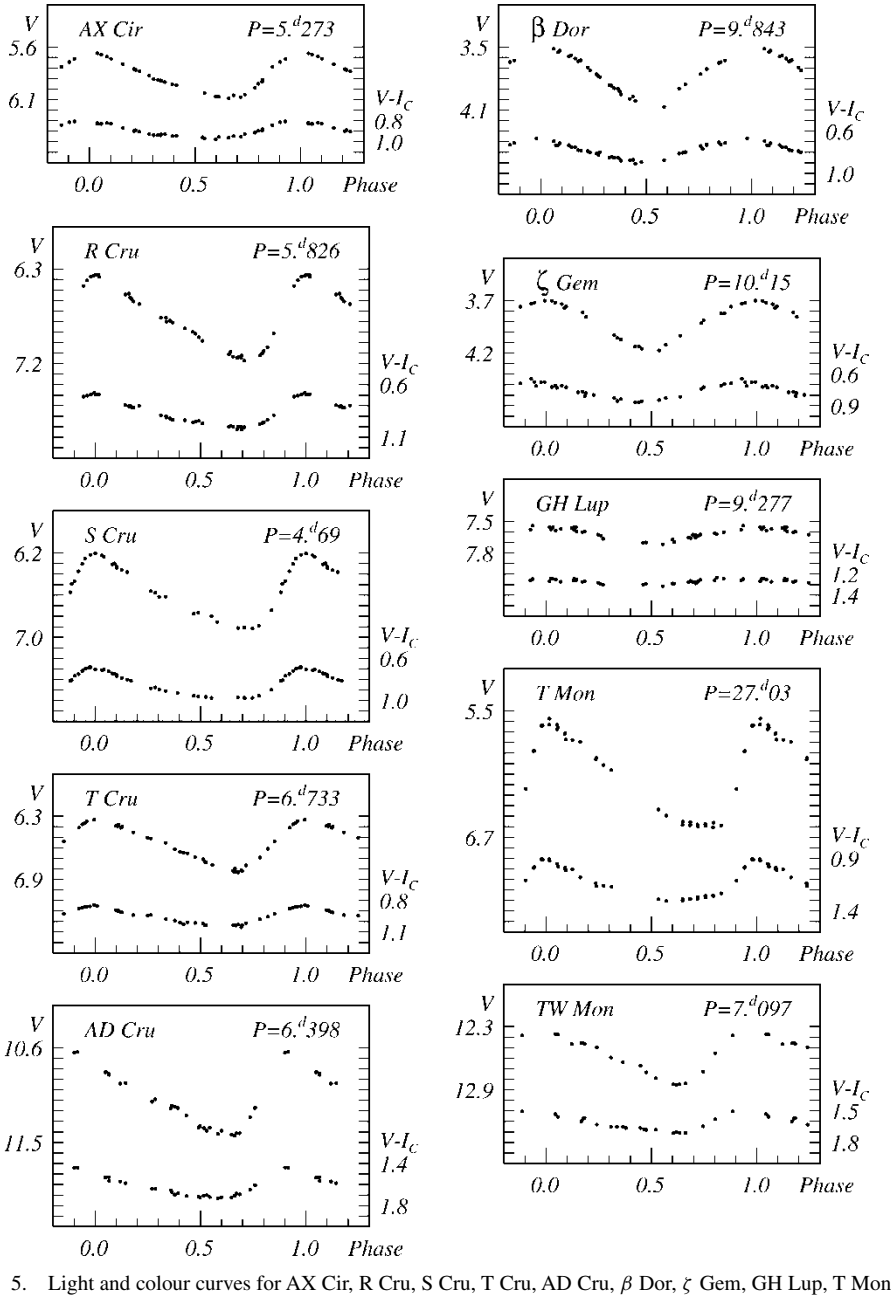

Figure 5. Light and colour curves for AX Cir, R Cru, S Cru, T Cru, AD Cru, β Dor, ζ Gem, GH Lup, T Mon and TW Mon.

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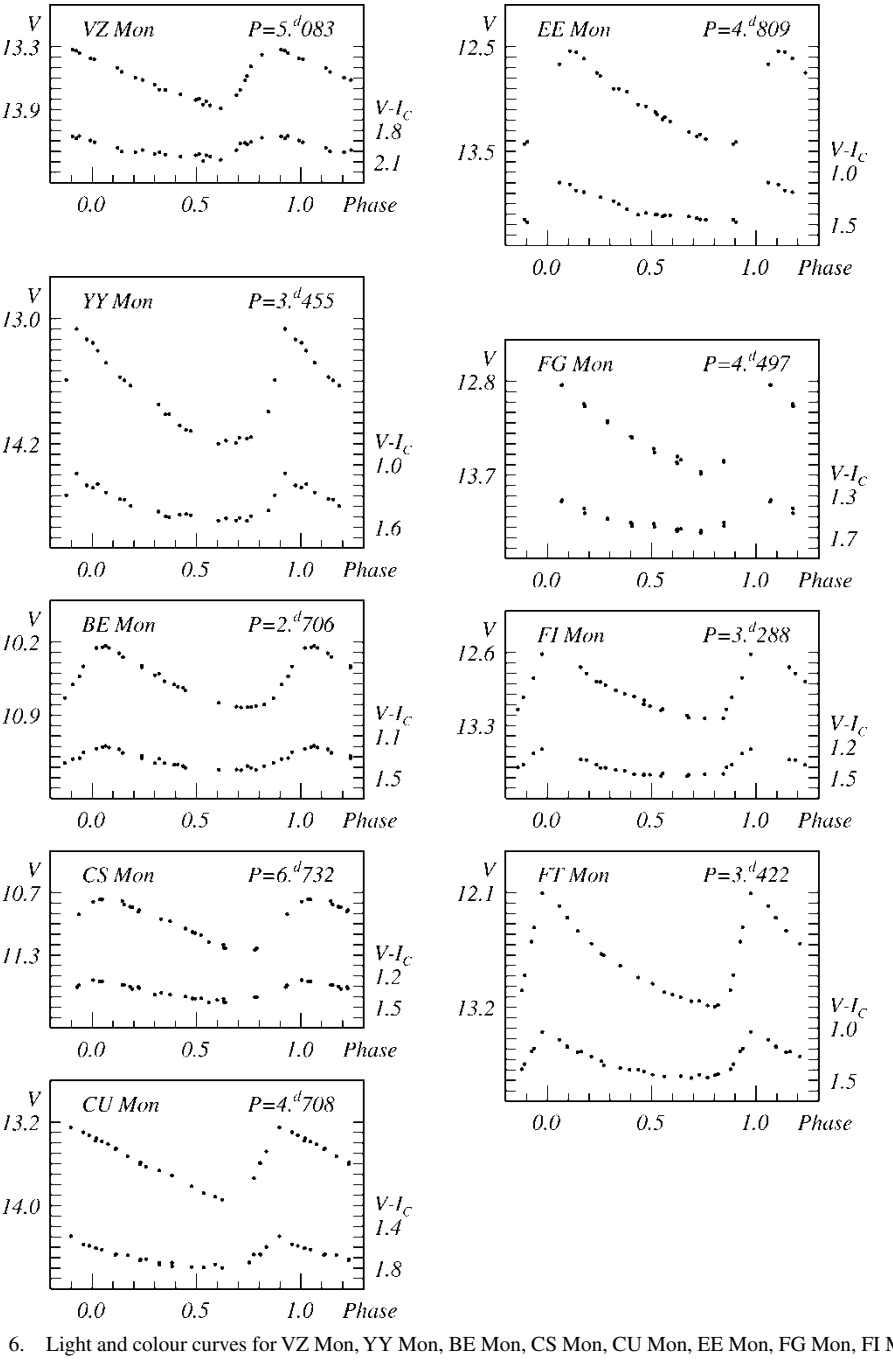

Figure 6. Light and colour curves for VZ Mon, YY Mon, BE Mon, CS Mon, CU Mon, EE Mon, FG Mon, FI Mon and FT Mon.

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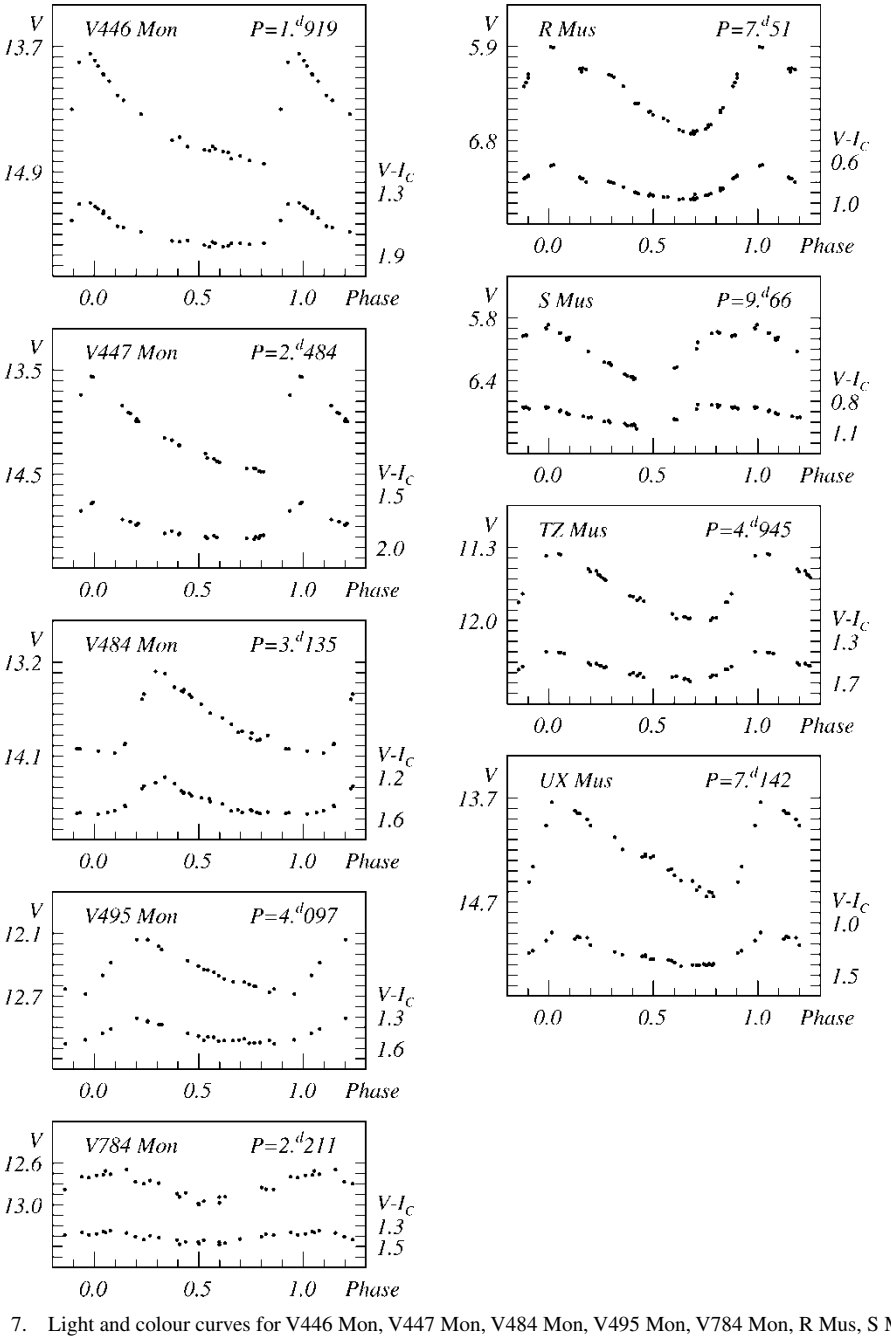

Figure 7. Light and colour curves for V446 Mon, V447 Mon, V484 Mon, V495 Mon, V784 Mon, R Mus, S Mus, TZ Mus and UX Mus.

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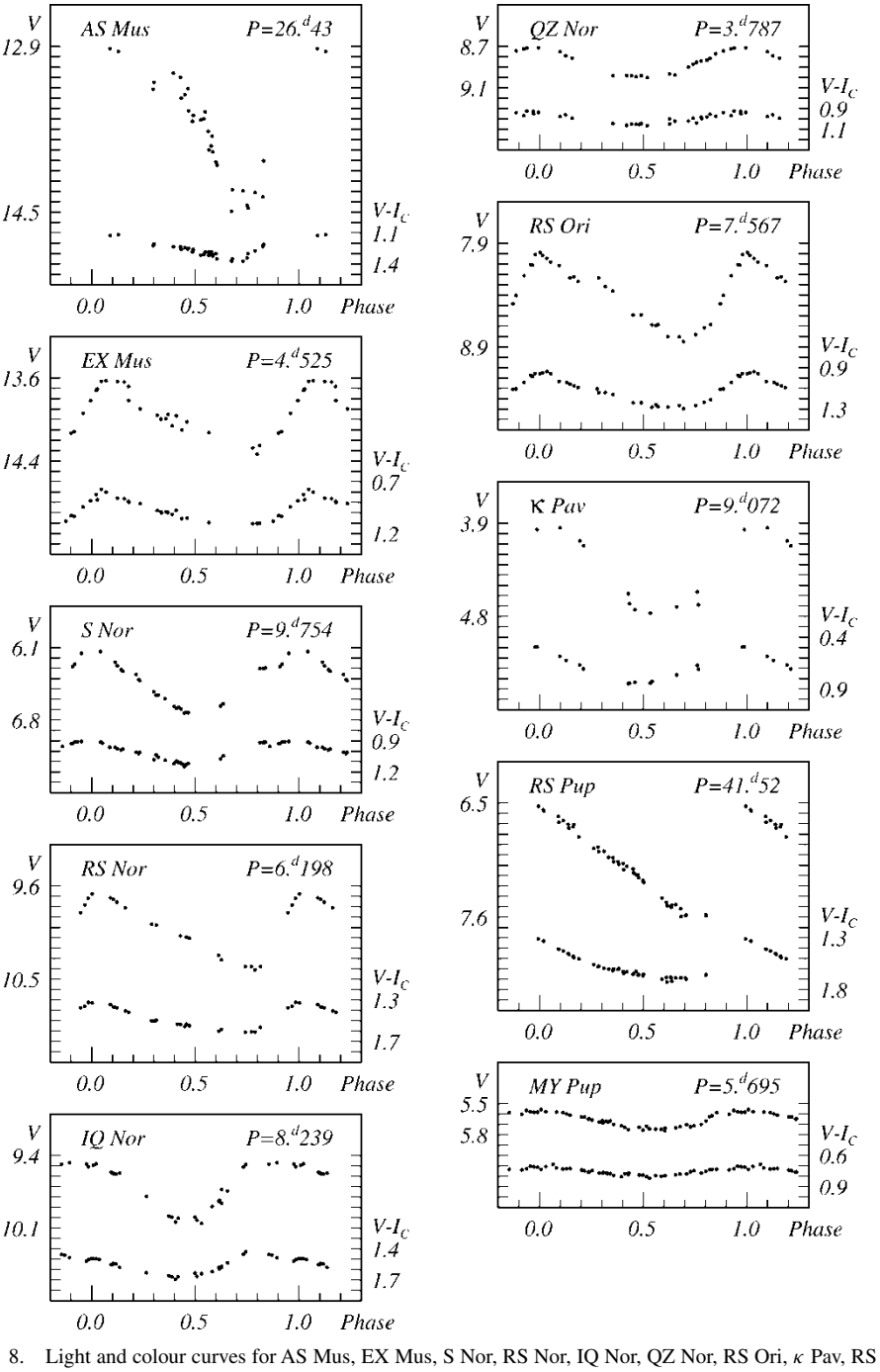

Figure 8. Light and colour curves for AS Mus, EX Mus, S Nor, RS Nor, IQ Nor, QZ Nor, RS Ori, κ Pav, RS Pup and MY Pup.

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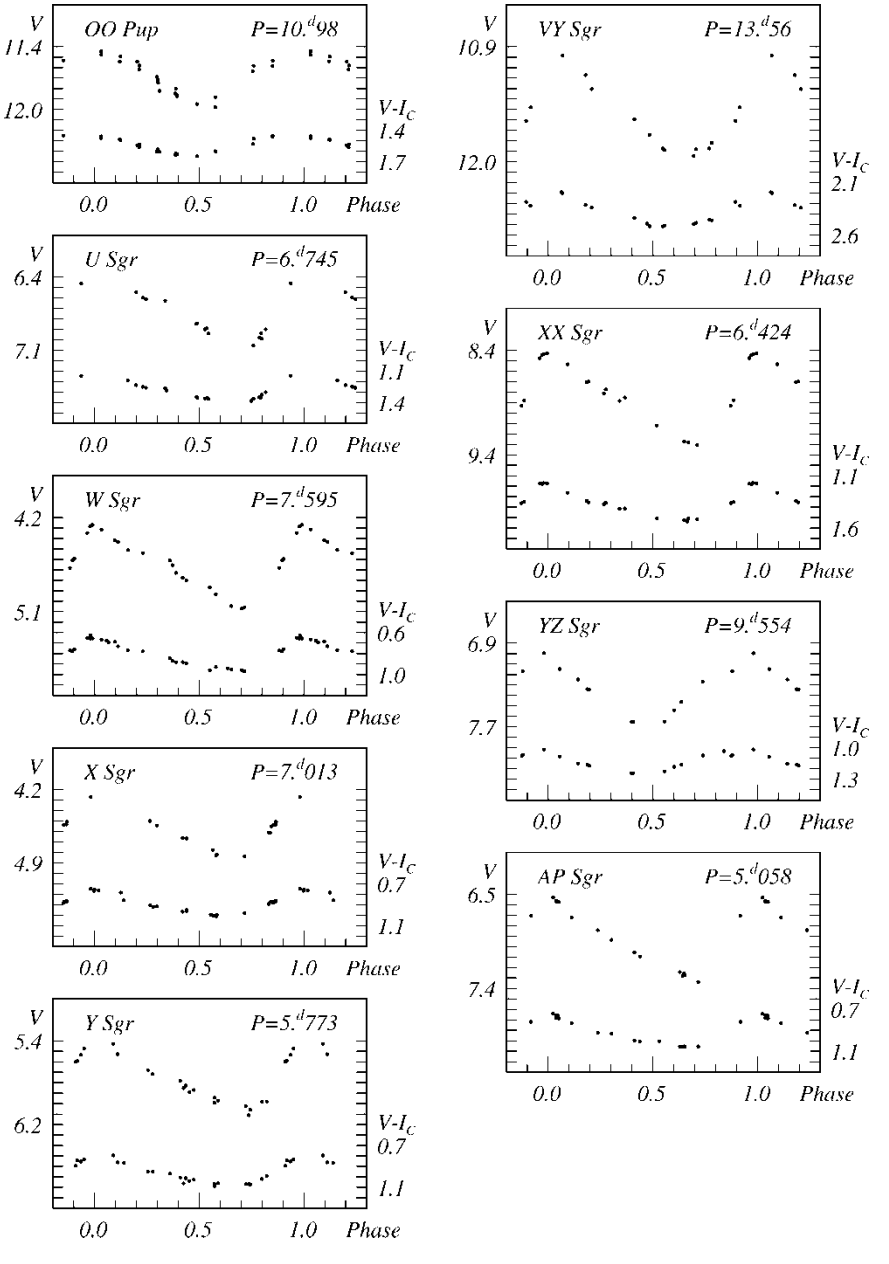

Figure 9. Light and colour curves for OO Pup, U Sgr, W Sgr, X Sgr, Y Sgr, VY Sgr, XX Sgr, YZ Sgr and AP Sgr.

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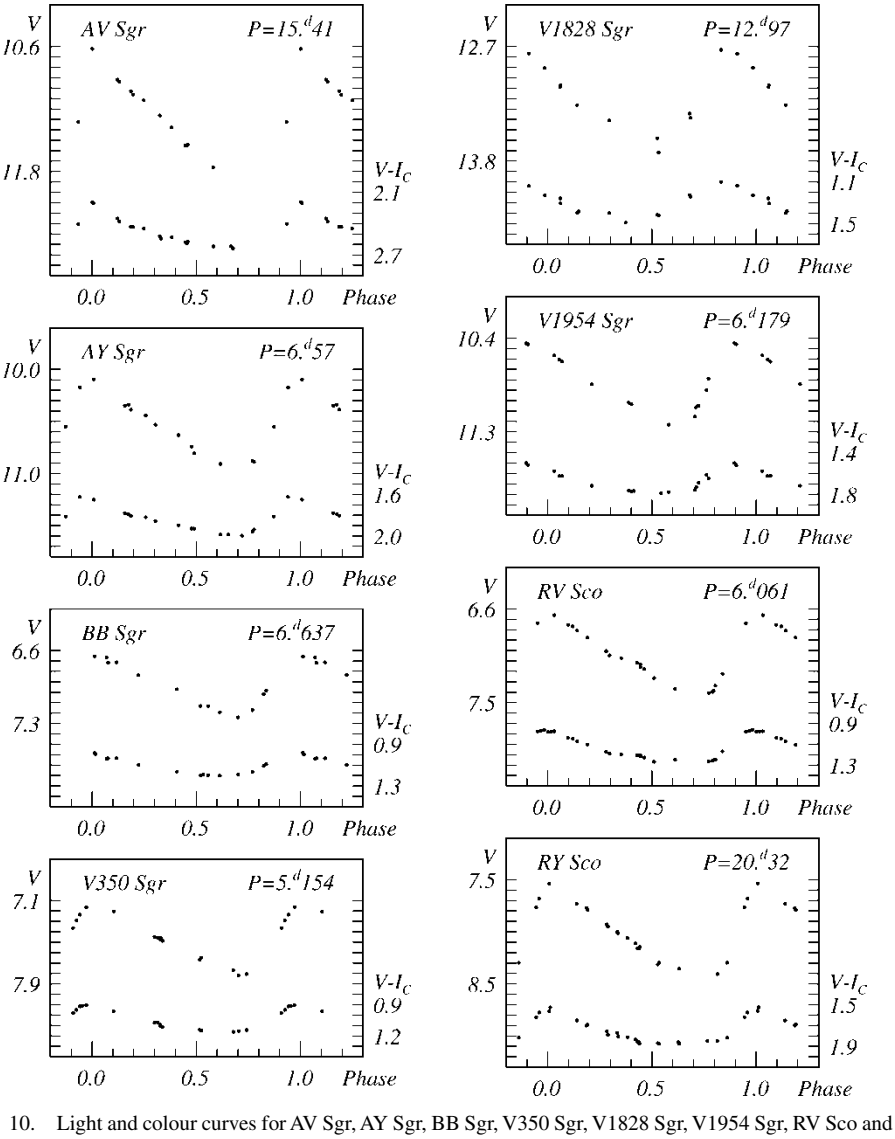

Figure 10. Light and colour curves for AV Sgr, AY Sgr, BB Sgr, V350 Sgr, V1828 Sgr, V1954 Sgr, RV Sco and RY Sco.

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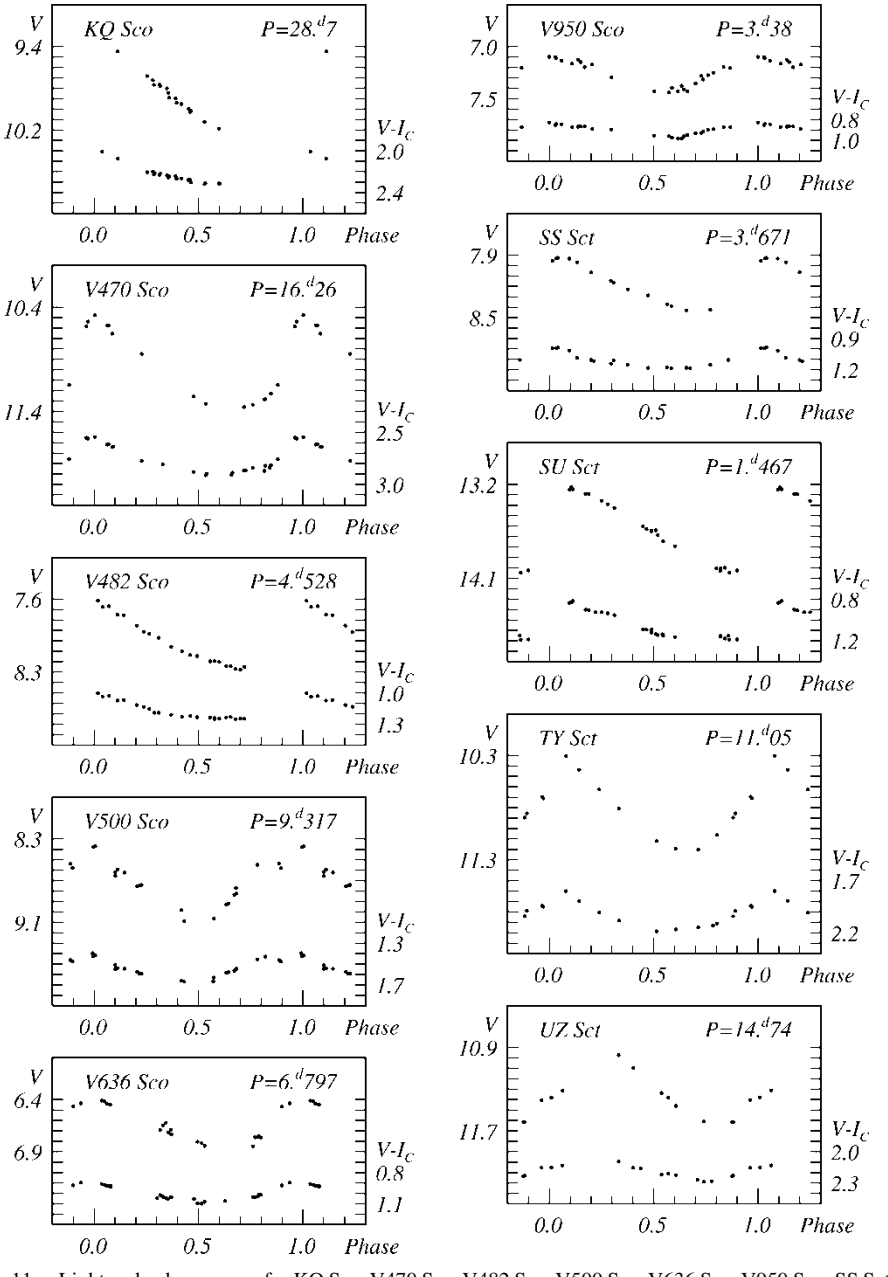

Figure 11. Light and colour curves for KQ Sco, V470 Sco, V482 Sco, V500 Sco, V636 Sco, V950 Sco, SS Sct, SU Sct, TY Sct and UZ Sct.

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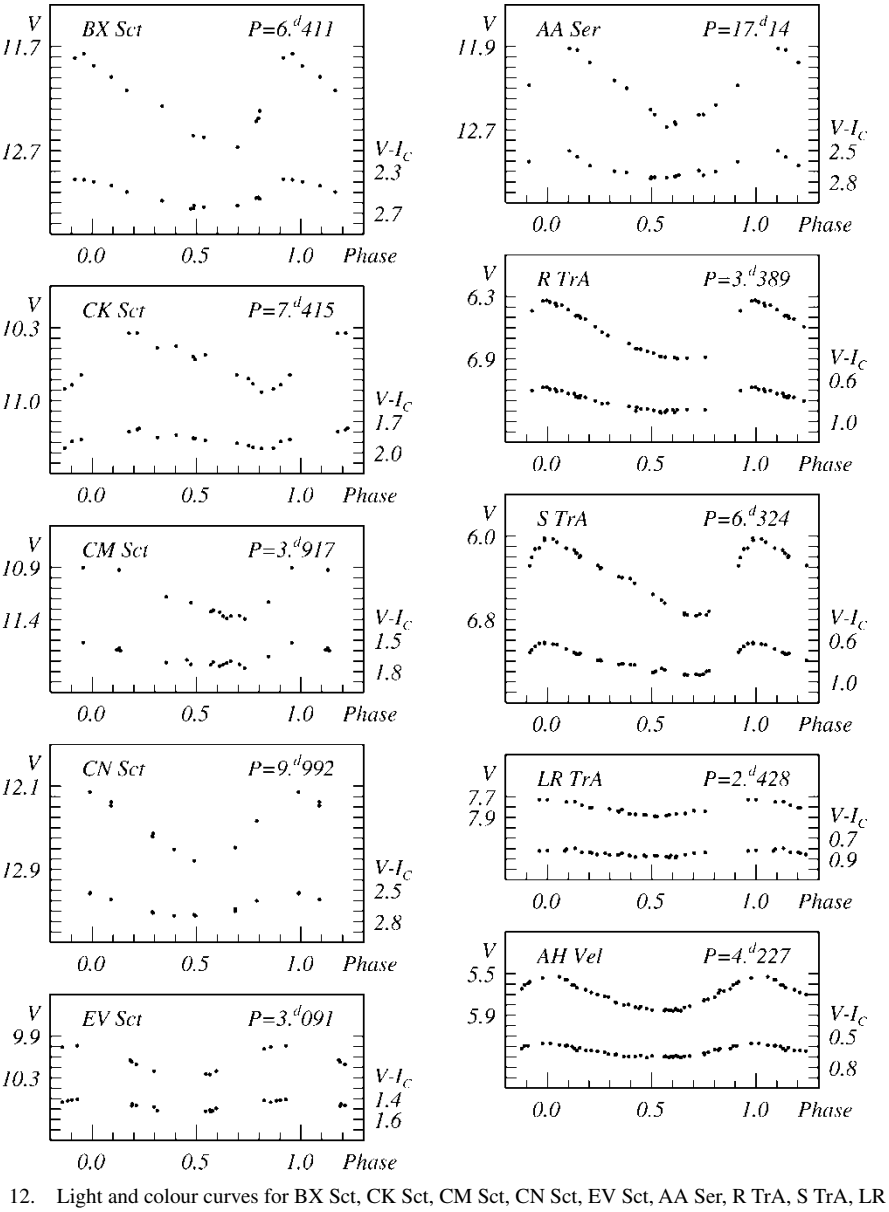

Figure 12. Light and colour curves for BX Sct, CK Sct, CM Sct, CN Sct, EV Sct, AA Ser, R TrA, S TrA, LR TrA and AH Vel.

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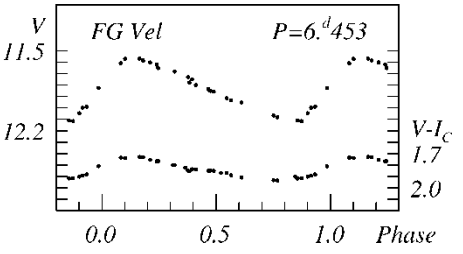

Figure 13. Light and colour curves for FG Vel.

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