

VARIABLE STARS IN THE GLOBULAR CLUSTER M12

NGC 6218 (M12, C1644-018, $l = 15^{\circ}.7$, $b = 26^{\circ}.3$) is a variable-poor cluster. It is an intermediate metallicity cluster with concentration class IX, apparent radius $r = 7'.2$ (Kukarkin, 1974) and tidal radius $r = 13'.4$ (Webbink, 1985).

The only variable found in this cluster by Sawyer-Hogg (1938) is a long-period Cepheid. Later Clement et al. (1988) confirmed her result that it was a W Vir variable (number 1 in Table 1) and discovered its period to be unstable, ranging from $15^d.50$ to $15^d.55$.

In our investigation we study four fields with the common size of $4'.3 \times 4'.3$. One may find details of the observations and data reduction in the paper by Brocato et al. (1996). Search for variable stars in the cluster was made in the same way as described in our previous paper (Kadla et al., 1996). From 18 V and 20 B frames we selected for our study 8 B, V pairs with the time interval between B and V exposures shorter than 10 min. There are two stars (numbers 2 and 3 in Table 1) in the instability strip of the colour - magnitude diagram (Figure 1) that can be considered as RR Lyrae variable candidates. Unfortunately the duration of observations was insufficient to confirm the variability of these stars. Data for suspected variables (coordinates, V magnitudes and colour $B - V$) are listed in Table 1.

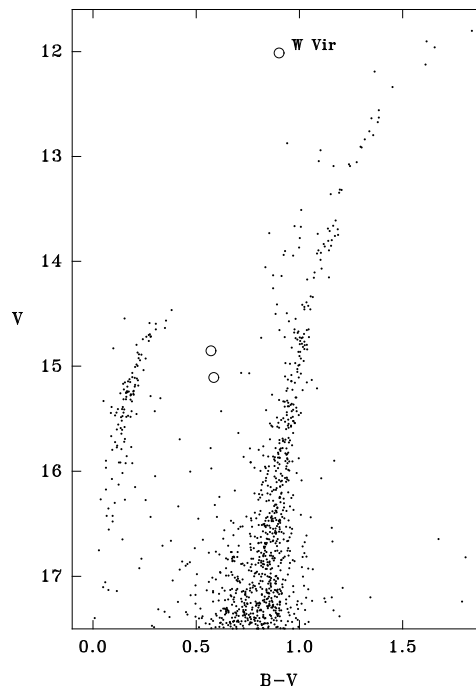
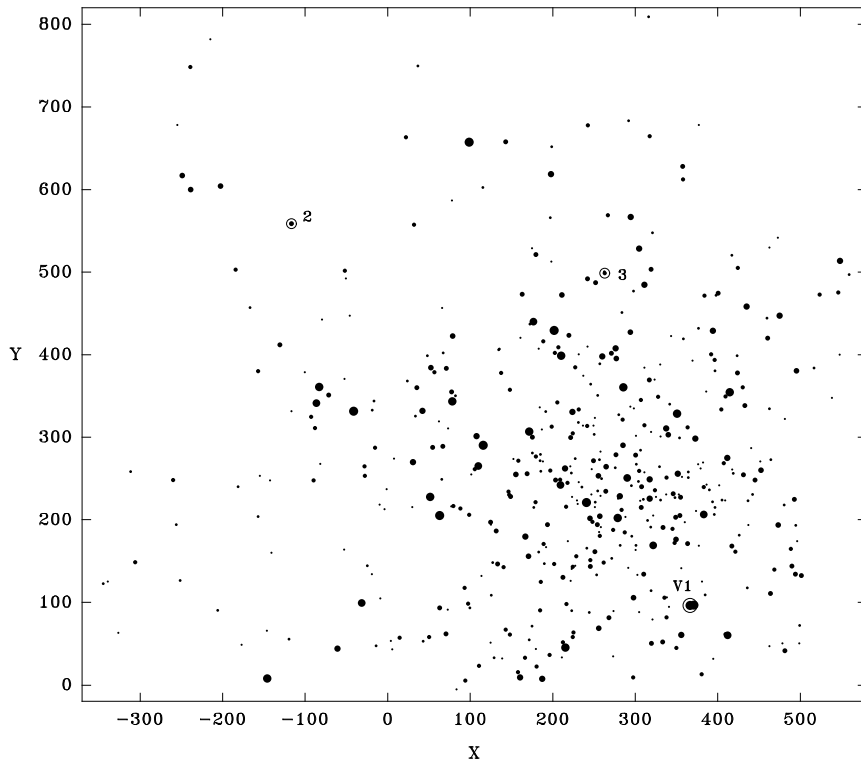


Figure 1. The color - magnitude diagram for the globular cluster M12, suspected variables are marked by circles



A finding chart for M12, suspected variables are denoted by circles

Table 1. Positions and photometric data for suspected variables

| N | X pixels | Y pixels | V | $B - V$ |
|-----|---------------|---------------|-------|---------|
| 1 | 366.00 | 96.52 | 12.02 | 0.90 |
| 2 | -116.63 | 558.41 | 14.85 | 0.57 |
| 3 | 262.75 | 498.57 | 15.11 | 0.58 |

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