## Discovery of Five New Variables

A. Liakos

**Institute for Astronomy, Astrophysics, Space Applications and Remote Sensing, National Observatory of Athens, Metaxa & Vas. Pavlou St., Penteli, Athens, Greece**

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(E-mail for contact: alliakos@noa.gr)

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### Comments:

1. The star GSC 0281-0197 (indicated as V in the finding chart) is located in the field of view of the eclipsing binary IK Vir. GSC 00281-00316 and GSC 00281-00181 were used as Comparison (C) and Check (K) stars, respectively, and they are also indicated in the finding chart. The maximum magnitude in R band is given in the USNO-A2.0 Catalog (Monet et al. 1998). Other cross identifications for the variable: USNO-A2.0 0975-15102047.

2. The system USNO-A2.0 0975-15110240 (indicated as V in the finding chart) is located in the field of view of the planetary nebula NGC 6804. USNO-A2.0 0975-15110248 and USNO-A2.0 0975-15110249 were used as Comparison (C) and Check (K) stars, respectively, and they are also indicated in the finding chart. MaxI – MinI = –0.21 mag and MaxI – MinII = –0.19 mag in R filter. The maximum magnitude in R band is given in the USNO-A2.0 Catalog (Monet et al. 1998). Other cross identifications for the variable: 2MASS 19511440-0916271.

3. The system USNO-A2.0 1125-14444300 (indicated as V in the finding chart) is located in the field of view of the planetary nebula NGC 6698. USNO-A2.0 1125-14444327 and USNO-A2.0 1125-14444317 were used as Comparison (C) and Check (K) stars, respectively, and they are also indicated in the finding chart. MaxI – MinI = –0.43 mag and MaxI – MinII = –0.18 mag in R filter. The maximum magnitude in R band is given in the USNO-A2.0 Catalog (Monet et al. 1998). Other cross identifications for the variable: NOMAD1 1127-0561928.

4. The system USNO-A2.0 1425-11421951 (indicated as V in the finding chart) is located in the field of view of the planetary nebula NGC 7008. USNO-A2.0 1425-11421962 and USNO-A2.0 1425-11421963 were used as Comparison (C) and Check (K) stars, respectively, and they are also indicated in the finding chart. MaxI – MinI = –0.43 mag and MaxI – MinII = –0.16 mag in I filter. The maximum magnitude in I band is given in the USNO-B1.0 Catalog (Monet et al. 2003). Other cross identifications for the variable: NOMAD1 1445-0351878.

5. The star USNO-A2.0 1425-13126187 (indicated as V in the finding chart) is located in the field of view of the eclipsing binary IK Vir. The maximum magnitude in R band is given in the USNO-A2.0 Catalog (Monet et al. 1998). The star is multiperiodic with a dominant pulsation frequency of ~90.74 c/d (period ~ 15.87 min) with a semi-amplitude of ~0.018 mag. Other cross identifications for the variable: VSX 0213-21.

### Remarks:

In the present study, we present photometric elements of five new variable stars. Their variability was detected as a by-product during observations of other targets. The observations were carried out at the Kryoneri Observatory of the National Observatory of Athens, Corinthia, Greece between September 2017 – August 2020 using a 1.2-m prime focus telescope (f/3) equipped with the twin cameras system Andor iCMOS Zyla 5.5 and the R and I Johnson-Cousins photometric filters (Xilouris et al. 2018). Differential magnitudes were obtained for all targets using the software Muninvi v.1.1.29 (Hroch 1998). The coordinates were drawn from the Gaia DR2 catalog (Gaia Collaboration et al. 2018).

Note added in proof: stars No. 2-5 were independently discovered in the Zwicky Transient Facility (Chen et al. 2020). The information was published in the VSX on September, 25 2020 – Editors.

### References:


