AA/2022/45154   A Multi-Year Photopolarimetric Study of the Semi-Regular Variable V CVn and identification of Analogue sources (H. Neilson +)

Associated data (fits image files) submitted in support of above paper

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File Summary & Description

ReadMe – this file

2020-VCVN-POLARIMETRY   20.1 Gb (4 observations)

2021-VCVN-POLARIMETRY   47.5 Gb (25 observations)

2022-VCVN-POLARIMETRY   72.9 Gb (36 observations)

- Observation subfolders are labelled by date (year/month/day e.g. 20210304) and include separate image subfolders for BIAS, DARKxx, DRIFT & VCVNxx fits files.
- VCVNxx image subfolders are labelled VCVNV0, V1, V2 etc up to V15 or simply Vxx where Vxx denotes the half-wave plate (HWP) position imaged.
- V0 corresponds to HWP=0 deg, V1 to HWP=22.5 deg, V2 to HWP=45 deg, V3 to HWP=67.5 deg etc. in 22.5 deg steps to V15=337.5 deg
- Where extra images have been taken because of poor observing conditions, the files are labelled V0-1, V0-2, V0-3 etc.
- A few, full set HWP measurements (V0 – V15) have been taken, but in general only the first 4 HWP positions (V0 – V3) have been measured.
- Vxx image folders include both raw image fits and reduced image fits.
- Filename extensions.bdf signify bias/dark/flat calibration.
- All polarimetry measurements have been made in V-band

As with any project, there have been some changes in nomenclature and data formatting throughout the 3 years of observation. At the start of 2021 the imaging camera was changed from the test set-up using an ASI 178mm CMOS camera for the 4 observations in 2020 to an ATIK 314L CCD used for all subsequent measurements and this configuration remained unchanged throughout 2021 & 2022. The measurements for 2020 include additional timestamp label plus camera settings (txt) and histogram (csv) files.

Image folders for calibration standards are labelled similarly by date, standard name and include BIAS, DARK, DRIFT and V0, V1, V2...etc image folders with raw and reduced fits files. Targets phi Cas & 2H Cam were used for high polarisation calibration and beta Cas, eta UMa, alpha UMa, beta UMi, alpha Peg, iota PEG for low (zero point) calibration. Calibration files can be sent on request.

Photometry measurements (BVRI) taken at the same time as polarimetry measurements have been reported separately and are available in the public domain in the BAA variable star photometry database (observer name: J. Simpson).

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