

Annual report to the ASSA AGM on 4th August 2021

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Variable stars

With the lockdown in the place there has been increased activity in the observation and discussion of variable stars.

Astronomy and variable star webinars have become immensely popular and have given us the opportunity to interact with specialists in the field that we would not have had under normal conditions.

Variable star observations.

Jose da Silva, from the Pretoria Centre, continued his exoplanet work in collaboration with several international organisations.

The prolific Berto Monard continued his work on high energy systems with numerous observations being submitted to the AAVSO and other organisations.

The author submitted 1351 photometric measures to the AAVSO, VSS and other projects.

The post-periastron passage of eta Carinae was closely followed as part of the long-term monitoring of this massive system with VSS and Prof. Augusto Daminieli, University of São Paulo.

The author collaborated with Dr Petr Harmanec of the Astronomical Institute of the Charles University in the Czech Republic, and others, in producing a paper titled “The quadruple sub-system with the eclipsing binary QZ Car: A hard nut to crack”, that will be published in *Astronomy and Astrophysics*.

Early warnings of nova and supernova discoveries and other interesting events were posted to alert observers. Observations, light curves and other information was posted on Facebook and WhatsApp.

The author continued with the AAVSO’s mentoring programme and is currently supporting new variable star observers, mostly in the USA.

Talks were given on Variable Stars and DSLR photometry of eclipsing binary stars.

No variable star observations were received by the Section as most observers submit their data to organisations such as the AAVSO, BAA and VSS.

Double stars.

Magda Streicher submitted 51 observations of double stars made in the constellations of Ara, Indus, Musca, Octans and Volans. These have been archived and we have a link on the Double and Variable Star web page.