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V 2101 Oph AND V598 Sco: TWO MISCLASSIFIED U Gem IN THE SOUTHERN
HEMISPHERE

Both V2101 Oph and V598 Sco are classified as U Gem stars in the 1985 edition of the GCVS.

Vogt et al. (1982 *Astron. Astrophys., Suppl.* 48,383) confirm V2101 Oph as a UG in their atlas of southern dwarf novae on the basis of an enhancement of its brightness detected on two subsequent plates of the Palomar Observatory Sky Survey. The same outburst was also detected on a ESO plate (see also Terzan et al. 1988 *Astron. Astrophys. Suppl.* 76,205).

V598 Sco was discovered by H.H. Swope (1943 *Harv. Ann.* 109) and later reported by Petit (1960 *J. Obs.*, 43,17) in his catalogue of dwarf novae where five outbursts of the star are recorded.

These stars have been included in a program for systematic monitoring of northern and southern DNe.

During a six-days run in La Silla (Chile) with the 1.52 m ESO telescope equipped with a *Boller & Chivens* spectrograph, both stars have been observed.

On March 30th 1992, V2101 Oph appeared much brighter than at quiescence ($m_V = 16$). Compared with some standard stars in the field of view, the star seemed as bright as $m_V = 13$. This value is very close to the maximum brightness reported by GCVS ($m_{V(AV_{max})} \simeq 12.5$).

Three grating spectra taken in the same night (range 4010 - 5998 Å; 2 Å resolution) showed a late - type spectrum with strong TiO bands.

The spectrum observed the following night did not change and might fit an M5 II - III type.

On March 30th 1992, V598 Sco was in its quiescent state with an apparent magnitude of approximately $m_V = 17$.

The following night it appeared brighter, very close to the maximum value of $m_V = 14$, and we obtained two consecutive spectra.

Also in this case we found a late type spectrum that can be classified as K5 II.

Thus both V2101 Oph and V598 Sco are not U Gem stars but more likely, semi-regular late type giants (SR - type).

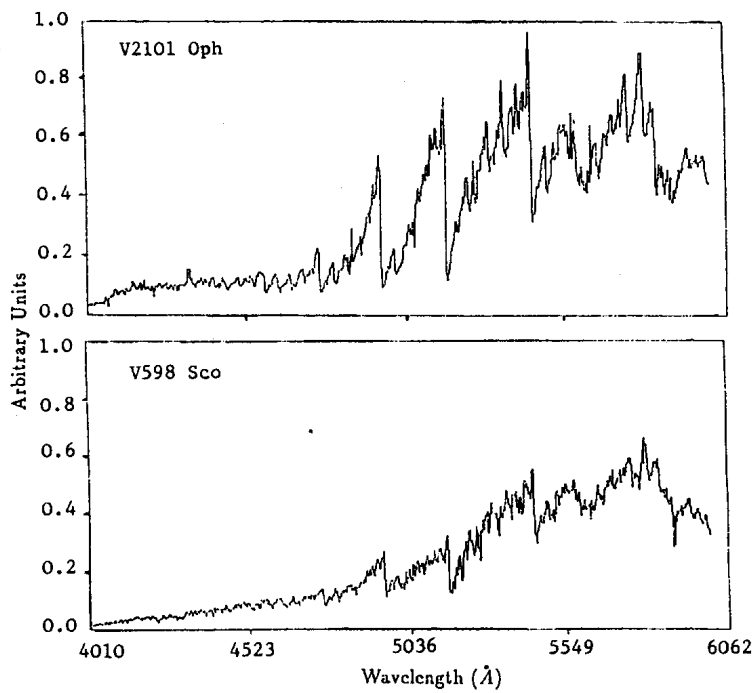


Fig 1: The spectra of V2101 Oph and V598 Sco suggest M5 II - III and K5 II types, respectively.

The two spectra are shown in Fig 1.

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