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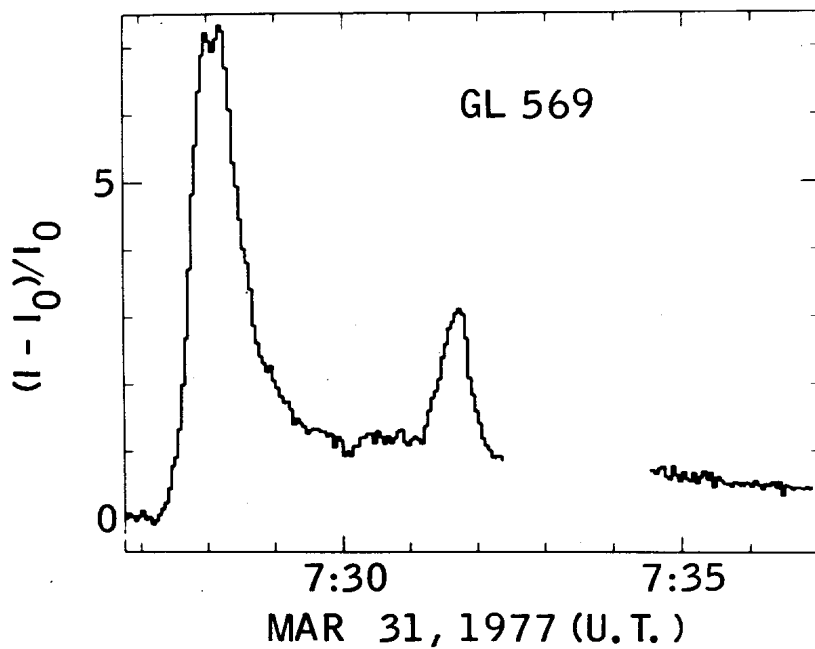
Konkoly Observatory
Budapest
1977 June 14

FLARE ACTIVITY ON GL 569

We have observed a prominent double flare followed by extended lowlevel activity on GL 569 ($\alpha=14^{\text{h}}52^{\text{m}}08^{\text{s}}$, $\delta=+16^{\circ}18'18''$; 1950) during a survey of nearby M dwarfs. Photometric observations with a time resolution of 3 seconds were made in the U-band on the UBV system using the 1.5 m Hale Observatory telescope at Mt. Wilson on March 30 and 31, 1977 (UT). The sky background was measured at 3 minute intervals. The total integration time was 5.0 hours on the object and 0.8 on the sky. The net signal was ratioed to its preflare value and plotted in Fig.1. The double flare was remarkable in that an hour after the flare, the signal was still 20% higher than its preflare level.

Eggen (1968) has previously reported a 0.5 mag flare at $1.02 \mu\text{m}$ for GL 569. Subsequently, Asteriadis and Mavridis (1972) observed a 20% flare in the B-band. The flare reported here, aside from being more prominent and extended, was double. Mullan (1976) interprets sympathetic flares with spacing of 2 to 4 minutes as due to a Moreton wave propagating from a flare at a star spot near one rotation pole to the other pole where it triggers a second flare.

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References:

- Asteriadis, G. and Mavridis, L.N. (1972) I.B.V.S.No.712
 Eggen, O.J. (1968) *Astrophys.J.Suppl.*, 16, 49-96
 Mullan, D.J. (1976) *Astrophys.J.* 204, 530-538

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