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ON THE PERIODICITY OF SS 433

The inspection of roughly 400 Sonneberg plates, 220 of which are of remarkable quality, showed that no obvious periodicity in the range of several days to several tens of days is present in our estimates of this object (SS=Stephenson, Sanduleak, ApJ Supp. 33, p. 549). The plates had been taken with the astrographs 40/160 cm, 40/190 cm and 17/120 cm, mostly during the years 1961 and 1962, but also scattered over the whole time since 1928. Neither a period around 165 days nor a persistent one around 6.5 (or 13) days (these values are often quoted in literature) seem detectable. The brightness variations could be considered as wave-shaped with changing cycle lengths of 5 to 15 days, superposed by shorter-termed fluctuations. The reality of the latter cannot, however, be proved in all cases because of the faintness of the star near the plate limit. The observed photographic amplitude is 1.7 mag ($15^m.0$ to $16^m.7$), most estimates ranging between $15^m.8$ and $16^m.4$ (referred to Mt. Wilson SA 111).

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