

OPTICAL VARIABILITY OF NGC 4151 DURING 100 YEARS

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ABSTRACT. We present historical light curve of NGC 4151 (Fig.1.) for 1906-2007. The light curve include mostly our published photoelectric (taken during the years 1968-2007 \sim 1040 mean per night measurements) and photographic (mostly Odessa's and Moscow's plates taken during the years 1906-1982, \sim 352 measurements) points. Additionally we include all published by other authors data obtained before 1968 (de Vaucouleurs and de Vaucouleurs, 1968; Sandage, 1966; Wisniewski and Kleinmann 1967; Fitch et al.1967; Barness 1967) (19 measurements taken during the years 1958-1967) as well as photographic data of Pacholczyc et al.(1983) (Harward's and Steward's patrol plates taken during the years 1910-1968, \sim 209 measurements). Look the references about the used data at Luytyi and Oknyanskii (1987) and see also Lyuty (2005,2006). All this data are reduced to the one photometrical system. Applying Fourier (CLEAN algorithm) we have found periodic component 15.4 years in the 100 years light curve. 30 years ago about the same "period" was firstly reviled from Odessa's photometrical data (Oknyanskij, 1977, 1978). There is strong correlation between spectral type and brightness. 14-16 years circles seen in the light curve probably correspond to some accretion dynamic time.

Key words: AGNs: individual: NGC 4151

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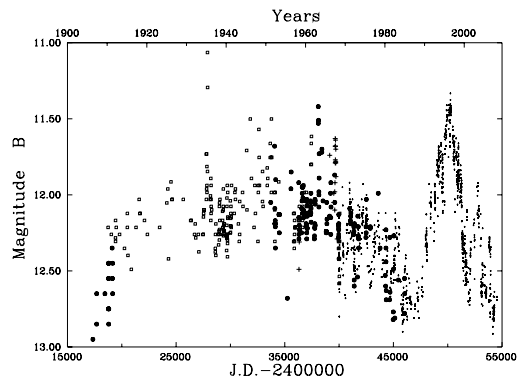


Figure 1: Observed light curve of the nucleus of NGC 4151 over 1906-2007. Points – Lyuty's photoelectric data, + – photoelectric measurements before 1968, circles – Oknyanskij's photographic data, boxes – Pacholczyk's et al. photographic data

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