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UBV(RI)c OBSERVATIONS OF SN 1987A**

SN 1987A was observed in 1987 from November 30 to December 14 with the 50 cm ESO Cassegrain reflector at La Silla. The telescope was equipped with a single-channel photon-counting cooled photometer using an RCA 31034 tube.

HD 39062 (=CP -61^o517 = SAO 243350) and HD 37297 (=CP -64^o456 = SAO 249309 = HR 1917) were used as comparison and check stars, respectively. The observations were corrected for atmospheric extinction and were transformed to the UBV(RI)c system by observing Cousins E-region standard stars (Vogt et al. , 1981). The following magnitudes were derived for the comparison and check stars, which showed no variability larger than 0.02 mag in any of the wavebands (the standard deviation in units of .001 mag. is given within parentheses):

Star	U	B	V	R	I
HD 39062	10.063(20)	8.685(11)	7.402(8)	6.754(12)	6.193(10)
HD 37297	7.239(13)	6.384(8)	5.350(6)	4.807(11)	4.326(9)

Table I

Nightly mean JDo, V magnitude and colors of SN 1987A. At the bottom of each column the typical standard deviation is reported in units of .001 mag.

JDo	V	U-B	B-V	V-R	V-I
(2447000.+)					
129.8058	5.881	1.574	1.273	1.162	1.642
130.7534	5.887	1.566	1.275	1.163	1.634
131.7469	5.902	1.558	1.275	1.158	1.632
132.7392	5.911	1.529	1.276	1.164	1.635
133.7037	5.925	1.540	1.268	1.168	1.634
134.7190	5.938	1.548	1.261	1.163	1.634
135.7974	5.947	1.532	1.259	1.160	1.633
136.7402	5.959	1.524	1.262	1.168	1.638
137.7905	5.964	1.522	1.260	1.161	1.627
138.7057	5.966	1.507	1.259	1.160	1.616
139.7656	5.973	1.500	1.254	1.154	1.620
140.7719	5.987	1.485	1.248	1.154	1.619
141.6943	5.997	1.490	1.238	1.158	1.626
142.7228	6.009	1.480	1.234	1.159	1.625
143.7636	6.012	1.478	1.237	1.157	1.617

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** Based on observations obtained at the European Southern Observatory, La Silla, Chile

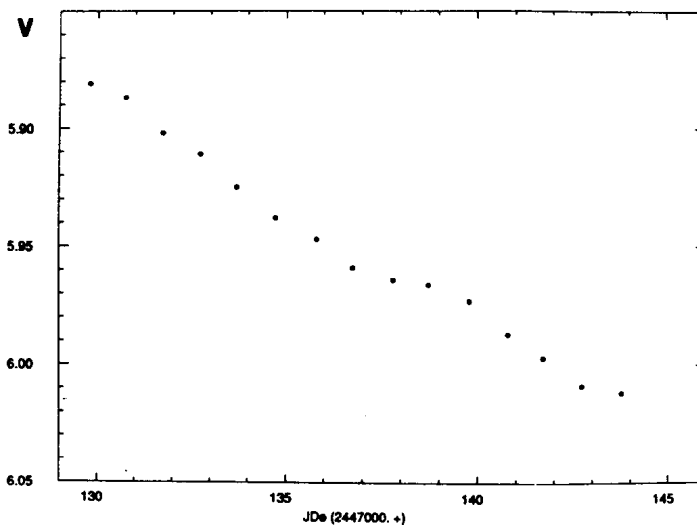


Figure 1: V observations of SN 1987A in 1987 from November 30 to December 14.

The magnitudes of HD 37297 and HD 39062 are in very good agreement with those reported by Rucinski (1983) and Gouiffes (private communication) respectively.

Figure 1 shows the V light curve. In Table I the mean JD₀, the V magnitude and the U-B, B-V, V-R and V-I color indices are presented. Each value is the average of at least three different measurements (SN 1987A - HD 39062).

Comparing our results with those obtained by Whitelock et al. (1988), we note systematic shifts (present paper - Whitelock magnitudes) of the order of: +0.04 mag in U, +0.01 in B, +0.04 in V, +0.03 in R and +0.1 in I. Although the difference in the I band is quite high, the shifts between the two data sets could be simply due to differences in the zero point.

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