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**STRÖMGREN DIFFERENTIAL PHOTOMETRY OF THE Be STAR  
 $\theta$  CrB: 1999-2002**

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The Be star  $\theta$  Coronae Borealis (= HR 5778 = HD 138749) has had periods of both activity and inactivity (see, e.g., Percy et al., 1988 and Percy & Attard, 1992). Fabregat & Adelman (1998) and Adelman (1999) presented differential Strömgren *uvby* photometry from the Four College Automated Photoelectric Telescope (FCAPT) of this star from 1994 to 1999. Neither short term periodic variability with an amplitude  $\geq 0.005$  mag. nor long term variations  $\geq 0.01$  mag. were seen. Percy et al. (2002) confirm that the Hipparcos observations of  $\theta$  CrB show no evidence of short-term variability. Recently Percy & Bakos (2001) reported that their observations of this star between 1996 and 1999 also indicated constancy. In this bulletin, I report on additional photometric observations with the FCAPT which show that this behavior has continued for three more years. These observations are inconsistent with those of Guerrero et al. (1992) which were obtained in 1989 when this star was in an active phase.

During the 1999-2000, 2000-2001, and 2001-2002 observing seasons an additional 49, 42, and 11 high quality observations, respectively, were made. Table 1 begins with the averages found by Adelman (1999) and summarizes the new observations, where c, ch and v are the comparison, the check and the variable star, respectively. The observing conditions, sequences and the comparison and check stars were the same as in Adelman (1999). The values for the last three seasons of observations are similar to those of the previous FCAPT observations. The new ensemble averages and standard deviations are very similar to those from Adelman (1999).

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Table 1. Summary of photometry for  $\theta$  CrB.

Heliocentric Julian Date	$u$		$v$		$b$		$y$	
	$v - c$	$c - ch$	$v - c$	$c - ch$	$v - c$	$c - ch$	$v - c$	$c - ch$
all previous values								
average	-1.740	-0.346	-1.306	-0.044	-1.262	0.048	-1.241	0.100
std. dev.	0.008	0.006	0.006	0.004	0.006	0.005	0.005	0.004
1999-2000								
49 observations								
average	-1.741	-0.344	-1.303	-0.043	-1.267	0.041	-1.241	0.100
std. dev.	0.007	0.005	0.005	0.005	0.004	0.004	0.005	0.024
2000-2001								
42 observations								
average	-1.742	-0.344	-1.301	-0.042	-1.265	0.042	-1.237	0.100
std. dev.	0.005	0.005	0.006	0.007	0.006	0.004	0.006	0.004
2001-2002								
11 observations								
average	-1.744	-0.352	-1.304	-0.048	-1.269	0.039	-1.240	0.099
std. dev.	0.008	0.003	0.005	0.006	0.004	0.004	0.008	0.004
all FCAPT observations								
average	-1.741	-0.346	-1.305	-0.044	-1.263	0.047	-1.241	0.100
std. dev.	0.008	0.006	0.006	0.004	0.006	0.005	0.005	0.004

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