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ELECTROPHOTOMETRY OF DH Peg AND AV Peg

Electrophotometry of selected RR Lyrae stars in intermediate band Strömgren system and H_{β} is in progress at Abastumani Astrophysical Observatory, after a new automatic 125 cm reflector was put into operation in 1980. The final aim of the present investigation is to determine the physical parameters of stellar atmospheres and the metallicity index. The filters used for presentation of the above system were kindly contributed for temporary use by Dr. R.M. West. These filters, belonging to the European Southern Observatory, are used for observing Ap stars in collaboration with Dr. R.M. West. The stars are being observed with the same telescope according to the programme coordinated by Dr. R.M. West.

The photometry of the variables was fulfilled automatically. BD +5^o4982 (for DH Peg) and BD +21^o4636 (for AV Peg) served as the comparison stars. Table I lists the photometric characteristics determined by the recent observations.

Table I

Star	V	b-y	m_1	c_1		n
+ 5 ^o 4982	8.41	0.055	0.107	0.835	2.800	12
	03	009	020	013	014	
+21 ^o 4631	9.48	0.564	0.300	0.430	2.570	13
	02	008	019	031	018	

The last column shows the number of determinations. The rms errors of one determination of each value are given too.

The photometric results of DH Peg and AV Peg are shown in Figures 1 and 2. The extreme values of the observed parameters are given in Table II.

Table II

Parameter	DH Peg		AV Peg	
	Max	Min	Max	Min
V	9.27	9.74	10.02	10.92
b-y	0.164	0.355	0.130	0.346
m_1	<0.094>		<0.147>	
c_1	1.276	1.012	1.310	0.696
H_{β}	2.828	2.682	2.822	2.655

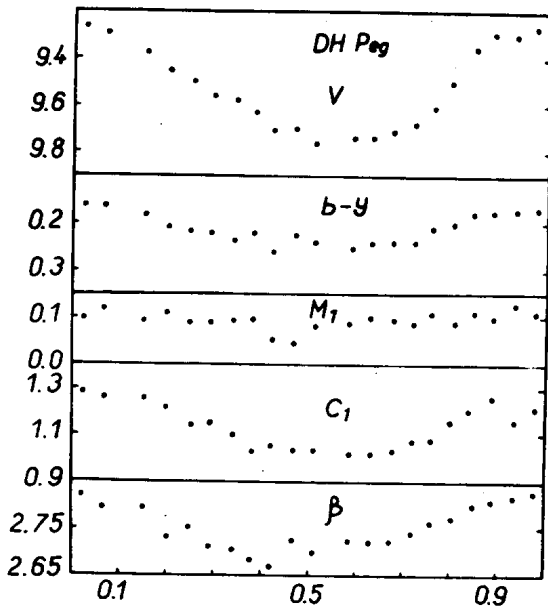


Figure 1

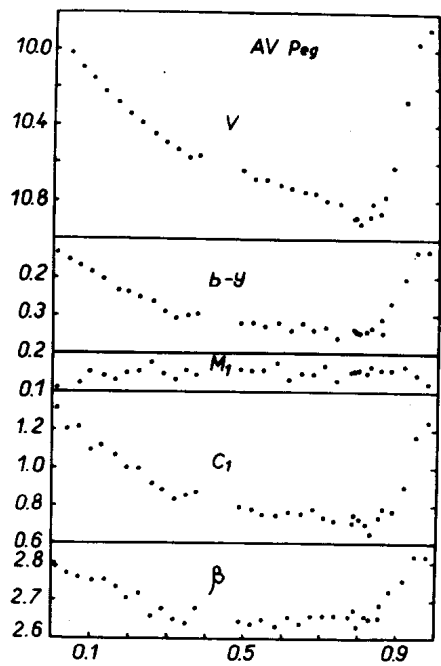


Figure 2

The complete data on the above-mentioned stars and the discussion will be published later. We should like to report that data have also been obtained and processed for the stars RR Lyr, RZ Cep, TT Lyn, SZ Lyn, XZ Dra, BH Peg, TU UMa.

I. Ph. ALANIA
Abastumani Astrophysical
Observatory, Academy of
Sciences of the Georgian SSR
U.S.S.R.