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RECENT PHOTOMETRY OF WZ Sge

During December 1978 we obtained photoelectric observations, mostly V, of WZ Sge using the Seyfert 60-cm telescope at the Dyer Observatory. The differential V and (B-V) observations, with respect to the Krzeminski and Kraft (1964) comparison star BD +17^o4225, are listed in Tables I and II, respectively. They are in the sense, comparison minus variable. We estimate that the accuracy of our ΔV and $\Delta(B-V)$ data is of the order of $\pm 0^m.007$ and $\pm 0^m.012$, respectively. Most of our ΔV data is shown in the figure, where the phases have been obtained from the epoch and period of Robinson, et al., (1978) and each night's results have been plotted separately. On those nights over which more than one cycle of the orbital period was observed the second cycle observations are shown as crosses. The light variations on individual nights do show some evidence for the small time scale flickering (2 to 10 minutes) noted by Patterson and McGraw (1978). We also call attention to the virtual doubling of the ΔV amplitude over a two day period, from about $0^m.13$ on HJD 2443855 to about $0^m.27$ on HJD 2443857. A straight averaging of each night's (B-V) data indicate that the color index of WZ Sge becomes progressively redder as the recurrent nova decreases in brightness.

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References:

- Krzeminski, W. and Kraft, R.P. 1964, Ap.J. 140, 921
Patterson, J. and McGraw, J.T., 1978, I.A.U. Circular No. 3311
Robinson, E.L., Nather, R.E., and Patterson, J. 1978, Ap.J. 219, 168

Table I
Differential V Data for WZ Sge

<u>Hel. J.D.</u>	<u>ΔV</u>	<u>Hel. J.D.</u>	<u>ΔV</u>	<u>Hel. J.D.</u>	<u>ΔV</u>
48.4837	-0.142	55.4848	-0.931	55.5384	-0.978
48.4875	-0.147	55.4858	-0.934	55.5394	-0.981
48.4902	-0.122	55.4877	-0.922	55.5405	-0.976
48.4994	-0.007	55.4885	-0.916	55.5414	-0.983
48.5022	+0.048	55.4895	-0.892	55.5423	-0.975
48.5047	+0.014	55.4905	-0.896	57.4848	-0.871
48.5178	-0.167	55.4913	-0.907	57.4861	-0.871
48.5204	-0.197	55.4970	-0.847	57.4873	-0.891
48.5286	-0.204	55.4980	-0.852	57.4885	-0.903
48.5312	-0.159	55.4990	-0.856	57.4897	-0.937
48.5337	-0.170	55.4999	-0.858	57.4921	-0.962
48.5423	-0.183	55.5009	-0.879	57.4931	-0.982
48.5444	-0.170	55.5030	-0.880	57.4942	-1.003
48.5468	-0.148	55.5039	-0.877	57.4954	-1.000
52.5025	-0.655	55.5049	-0.895	57.5007	-1.058
52.5040	-0.672	55.5059	-0.913	57.5019	-1.088
52.5065	-0.703	55.5070	-0.917	57.5029	-1.084
52.5077	-0.691	55.5131	-0.922	57.5039	-1.079
52.5103	-0.681	55.5141	-0.939	57.5050	-1.087
52.5115	-0.682	55.5152	-0.958	57.5059	-1.099
52.5165	-0.640	55.5161	-0.962	57.5081	-1.085
52.5178	-0.623	55.5171	-0.969	57.5090	-1.080
52.5203	-0.559	55.5193	-0.948	57.5102	-1.085
52.5215	-0.596	55.5205	-0.954	57.5113	-1.071
52.5240	-0.582	55.5215	-0.923	57.5124	-1.069
52.5251	-0.566	55.5226	-0.918	57.5134	-1.054
52.5301	-0.553	55.5237	-0.910	57.5191	-1.057
52.5313	-0.584	55.5246	-0.911	57.5201	-1.074
52.5335	-0.604	55.5302	-0.890	57.5211	-1.085
52.5348	-0.595	55.5313	-0.916	57.5222	-1.085
52.5373	-0.638	55.5323	-0.925	57.5233	-1.038
52.5385	-0.625	55.5333	-0.940	57.5247	-1.040
55.4819	-0.963	55.5342	-0.946	57.5268	-1.046
55.4827	-0.943	55.5363	-0.914	57.5278	-0.978
55.4837	-0.931	55.5375	-0.941	57.5289	-0.929

Table I (cont.)

<u>Hel. J.D.</u>	<u>ΔV</u>	<u>Hel. J.D.</u>	<u>ΔV</u>	<u>Hel. J.D.</u>	<u>ΔV</u>
57.5299	-0.918	65.4904	-1.589	68.4871	-1.776
57.5309	-0.895	65.4915	-1.577	68.4902	-1.781
57.5319	-0.896	65.4927	-1.590	68.4917	-1.786
57.5373	-0.811	65.4974	-1.626	68.4931	-1.783
57.5382	-0.821	65.4986	-1.628	68.4983	-1.798
57.5392	-0.828	65.4998	-1.644	68.4994	-1.823
57.5405	-0.836	65.5025	-1.655	68.5008	-1.824
57.5416	-0.821	65.5038	-1.659	68.5034	-1.829
57.5425	-0.823	65.5050	-1.644	68.5045	-1.822
58.5447	-0.870	65.5100	-1.647	68.5057	-1.819
57.5458	-0.880	65.5112	-1.661	68.5103	-1.806
57.5467	-0.899	65.5124	-1.671	68.5114	-1.776
57.5478	-0.927	65.5148	-1.670	68.5125	-1.777
57.5489	-0.936	65.5160	-1.661	68.5147	-1.744
57.5500	-0.961	65.5172	-1.649	68.5157	-1.746
57.5551	-1.027	65.5219	-1.634	68.5157	-1.750
57.5563	-1.039	65.5232	-1.643	68.5208	-1.762
57.5574	-1.049	65.5244	-1.637	68.5218	-1.727
57.5584	-1.053	65.5269	-1.692	68.5229	-1.725
57.5594	-1.051	65.5282	-1.682	68.5239	-1.699
57.5605	-1.049	65.5294	-1.694	68.5249	-1.677
57.5615	-1.043	65.5343	-1.629	69.4874	-1.881
57.5625	-1.074	65.5356	-1.607	69.4889	-1.874
57.5634	-1.071	65.5369	-1.591	69.4904	-1.873
57.5644	-1.080	65.5398	-1.550	69.4932	-1.826
64.4821	-1.622	65.5409	-1.530	69.4942	-1.831
64.4830	-1.623	65.5420	-1.561	69.4953	-1.825
64.4853	-1.656	65.5431	-1.543	69.4992	-1.872
65.4856	-1.603	65.5443	-1.585	69.5002	-1.885
65.4869	-1.600	68.4842	-1.766	69.5001	-1.871
65.4880	-1.578	68.4857	-1.766		

Table II
Differential (B-V) Data for WZ Sge

Hel.J.D.	$\Delta(B-V)$	Hel.J.D.	$\Delta(B-V)$
48.4855	+0.286	55.5020	+0.143
48.4887	+0.241	55.5182	+0.156
48.5007	+0.200	55.5352	+0.151
48.5047	+0.243	57.4909	+0.191
48.5193	+0.210	57.5069	+0.145
48.5299	+0.166	57.5258	+0.127
48.5324	+0.221	57.5436	+0.057
48.5433	+0.200	64.4840	+0.117
48.5457	+0.257	65.4893	+0.120
52.5053	+0.230	65.5011	+0.114
52.5089	+0.227	65.5136	+0.120
52.5190	+0.208	65.5256	+0.142
52.5229	+0.182	68.4887	+0.102
52.5324	+0.172	68.5022	+0.087
52.5361	+0.193	68.5136	+0.070
55.4867	+0.114	69.4920	+0.086

