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INVESTIGATION OF THE LIGHT VARIATIONS OF
THE QUASI-STELLAR RADIOGALAXY 3C 273 ON
HEIDELBERG PLATES

The radiogalaxy 3C 273 is visible on 105 plates of the Heidelberg plate collection and its brightness was estimated by eye using SMITH and HOFFLEIT's comparison stars. Most of these stars are identical with those used by SHAROV and EFREMOV. The bulk of the observations lies between 1892 and 1915 (91 plates) where they are most needed, and were obtained at two instruments: the 6 inch double astrograph (A-plates) and the 16 inch Bruce double astrograph (B-plates). Therefore, nearly without exceptions, the observations consist of two exposures and in many cases three or more plates are available per night. For the brightness of the comparison stars WARNER and SWASEY photographic magnitudes were used, slightly corrected to fit our estimates to the best:

Comparison Star	6 inch Telescope m _{pg}	Bruce-Telescope m _{pg}	Remarks
A'	12.07	12.07	Sharov and Efremov's
B	12.33	12.34	a-star
C	12.65	12.62	b- "
D	12.81	12.84	c- "
E	13.04	13.06	d- "

The following table gives the individual magnitude estimates of all plates investigated.

Tele- scope	J.D.	m pg	Tele- scope	J.D.	m pg
	241....			241....	
A	2179.375	12. ^m 23	A	6194.507	12. ^m 52
A	2179.472	12.18	A	6194.534	12.46
A	2179.472	12.14	A	6554.596	12.57
A	2182.370	12.20	A	6554.619	12.61
A	2182.370	12.14	A	6554.619	12.54
A	2182.455	12.14	A	6913.452	12.49
A	2182.455	12.07	A	6913.494	12.49
A	2182.548	12.14	A	6918.547	12.52
A	2182.548	12.07	A	6918.567	12.57
A	2541.445	12.43	B	7273.574	12.48
A	2544.415	12.28	B	7273.574	12.45
A	2544.415	12.32	B	7291.466	12.41
A	2916.415	12.36	B	7291.466	12.39
A	2916.415	12.42	A	7303.382	12.52
A	3270.452	12.70	A	7303.367	12.57
A	3270.452	12.52	A	7303.418	12.58
A	3270.515	12.57	A	7667.361	12.26
A	3656.459	12.27	A	7668.383	12.41
A	3656.459	12.33	A	7668.383	12.27
A	4725.445	12.58	B	8024.460	12.73
A	4725.445	12.52	B	8024.460	12.59
A	4727.444	12.60	A	8419.504	12.39
A	4727.444	12.57	B	8445.424	12.39
A	5108.418	12.26	B	8445.424	12.45
A	5108.418	12.20	A	8745.411	12.29
A	5110.454	12.28	A	8745.442	12.49
A	5110.454	12.20	A	8745.486	12.46
A	5129.412	12.26	B	9127.517	12.56
A	5129.412	12.16	B	9127.517	12.56
A	5457.438	12.39	A	9505.361	12.71
A	5457.469	12.46	A	9505.394	12.71
A	5457.512	12.40	A	9505.427	12.52:
A	5813.414	12.49	B	9510.535	12.68
A	5813.442	12.41	B	9510.535	12.64
A	5813.473	12.39	A	9828.427	12.58
B	5814.504	12.45	A	9828.457	12.57
B	5814.504	12.48	A	9828.487	12.59
B	5815.556	12.50	B	9861.409	12.48
B	5815.556	12.48	B	9861.409	12.45
A	5848.384	12.57	B	9882.434	12.73
A	5848.451	12.57	B	9882.434	12.68
A	5852.397	12.46			
A	5852.397	12.52		242....	
A	6194.486	12.57	B	0221.429	12.55

Tele- scope	J.D.	m _{pg}	Tele- scope	J.D.	m _{pg}
	242....			243....	
B	0221.429	12. ^m 62	B	0456.387	12. ^m 51
A	0222.480	12.68	B	0456.387	12.45
A	0222.480	12.73	B	0461.398	12.55
B	0579.429	12.29	B	0461.398	12.66
B	0579.429	12.27	B	0463.405	12.66
B	0953.488	12.41	B	0463.405	12.68
B	4612.444	12.45	B	6287.480	12.78
B	7158.376	12.95	B	7469.429	12.68
B	7158.376	12.91			
B	7534.446	12.44			
B	7534.446	12.48			

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