

such a "shrinking" effect. It seems that the present more accurate material confirms the early results. The visual ellipticity is much larger than the photographic one, a finding in conformity with the previous ones.

The present material together with a few recent facts suggests an association (physical or fortuitous) of the glaring discrepancy between the apparent spectroscopic and photometric orbital eccentricities with the difference of radii and ellipticities in two different wave lengths. Probably the emission lines are associated with these phenomena.

Future photoelectric as well as new spectroscopic observations would be very desirable.

NEW MAGELLANIC TYPE GALAXY IN PHOENIX

By Harlow Shapley

A faint high-latitude star cloud, apparently similar to the Magellanic Clouds and heretofore not catalogued, appears on plates of various series from the South African Station in the position (1900)

R.A. $1^h 40^m 55^s$ $\beta -70^\circ$

Dec. $-44^\circ 6'.1$ $\lambda 237^\circ$

The object is irregularly oval in shape, $5' \times 3'$, position angle of the major axis 135° . Outlying nebulous patches considerably increase the apparent dimensions. The eighth magnitude star HD 10818, spectrum F0, is about $3'.5$ southwest of the center of the star cloud. Diffuse nebulae or irregular star clusters can be faintly detected, but no individual stars that are brighter than the nineteenth magnitude.

The total magnitude of the system is uncertainly estimated on four small-scale plates to be 13.3. The object probably is a dwarf irregular-type galaxy, like IC 1613 and NGC 6822. If the eighteenth magnitude nebulous objects in the cloud are physical members and of the luminosity of such objects in the Magellanic Clouds, then the distance of the new galaxy may be 0.5 megaparsecs, and it is not a member of the local group of galaxies. At such a distance its dimensions would be comparable with those of the Small Magellanic Cloud.

A large number of still more remote galaxies is found in the neighborhood of the new object. Space absorption in this area is therefore probably negligible, as would be expected for galactic latitude -70° .

SOME NEW GALACTIC CLUSTERS

*By Ivan King**

During an examination of long-exposure photographs made with the sixteen-inch Metcalf refractor the writer has found several new galactic clusters, in addition to some which had been marked on the plates by previous workers. Table I lists those objects which are certainly physical clusters, while Table II lists a number which might be only chance groupings.

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In each table the successive columns give a number for the cluster, the right ascension and declination for the equinox 1950, the diameter in minutes (and the position angle of the greatest diameter, if the cluster is elongated), the magnitude range of the stars, and a classification on the basis of richness. The positions were measured on the plates (98" = 1 mm.) with a millimeter ruler, with reference to the nearest BD star. The magnitudes are rough estimates, intended only for purposes of identification and description. In the last column r, m, and p stand for "rich," "medium," and "poor," respectively.

The clusters numbered 2, 3, and 5 had been marked on the plates by Miss Rebecca B. Jones, while No. 6 was marked by Dr. Carl K. Seyfert.

Table I

Objects Which are Certainly Physical Clusters

No.	R.A. (1900)	Dec.	Diameter	Mags.	Class
1	0 ^h 19 ^m .2	+64°07'	9' × 6', 80°	13-17	m
2	0 48.1	57 55	6',	17-	r
3	1 32.9	64 18	3',	16-	r
4	2 32.0	58 47	3',	13-15	p
5	3 11.0	52 32	9' × 6', 120°	13-17	m
6	3 24.2	56 17	15' × 8', 60°	10-13	m
7	3 55.2	51 39	8' × 4', 140°	16-	m
8	5 46.1	33 37	2',	15-17	p
9	22 13.6	54 09	3' × 2', 20°	18-	r
10	22 52.9	58 54	4' × 2', 160°	11-17	m
11	23 45.4	68 21	4' × 3', 0°	17-	m
12	23 50.5	61 41	2',	10-13	p

Table II

Suspected Clusters

No.	R.A. (1900)	Dec.	Diameter	Mags.	Class
13	0 ^h 07 ^m .5	+60°56'	5',	12-16	p
14	0 29.1	62 53	7',	10-14	p
15	0 30.1	61 35	2' × 1', 0°	18-	m?
16	0 40.7	63 55	4',	11-17	p
17	5 05.0	39 01	1½',	14-16	p
18	22 50.1	58 01	4',	12-14	p
19	23 06.2	60 15	4',	12-16	p
20	23 31.0	58 14	5',	13-15	p
21	23 47.4	62 26	2',	13-16	p

REMARKS

No. 9. 5' nf NGC 7245.

No. 12. Probably identical with the cluster listed as H21 in Appendix B of Shapley's *Star Clusters*, although it is 15' from the position given.

No. 14. 12' sp NGC 146.

No. 15. Close to limiting magnitude of plate.

No. 21. Two tenth-magnitude stars involved.