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3. VARIABLES IN STAR CLUSTERS OF EXTERNAL GALAXIES

At present this field is concerned with clusters associated with the Magellanic Clouds. Variables are being currently studied in six clusters belonging to them. Thackeray (55) has found both RR Lyrae type and long-period variables in a study of five stars around NGC 121. In NGC 330 Arp (56) has found one variable, probably a Cepheid, as well as a probable Cepheid in NGC 458 (57). Wesselink is working on the many variables he discovered in NGC 1466, with new photo-electric observations for precise determination of mean magnitudes, to obtain the distance modulus of the cluster with respect to the Clouds. In NGC 1866 Arp and Sandage (unpublished) have six Cepheids. Alexander (58) has investigated NGC 2257, a cluster in which he found 23 variables and Sandage found five. Alexander has determined periods ranging from 0.51 to 0.69 days for six of these stars.

4. PROPOSALS

Detre asks that observatories with globular cluster plates not being used for the study of variables make them available to astronomers interested in the problem. He mentions specifically being handicapped by work published on period changes in M 15 for which the observations are not available.

Detre suggests that more attention be paid to period changes in ω Centauri because this cluster can be resolved to its very center.

Kholopov proposes that since the demarcation between galactic clusters and associations is so hazy, the latter should also be included in the work of this Sub-Commission.

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