

INTRODUCTION

Organization and character of the conference

The Second Conference on Co-ordination of Galactic Research was held from 17 to 22 June 1957 at Saltsjöbaden near Stockholm, at the invitation of Dr B. Lindblad, director of the Stockholm Observatory. It was prepared by the sub-commission on Co-ordination of Galactic Research of Commission 33 of the International Astronomical Union. The local organization was in the hands of the Stockholm Observatory, particularly of Professor B. Lindblad and Dr J. Ramberg. By a grant from the Swedish Government the participants received free board and lodging at Vår Gård, a boarding-school belonging to the Swedish Co-operative Union. A considerable part of the travel expenses was defrayed from funds made available by UNESCO and the International Astronomical Union.

The aim of the conference was the same as that of the 1953 Groningen Conference on Co-ordination of Galactic Research, which has been reported on in *Symposium No. 1 of the International Astronomical Union* (Cambridge University Press, 1955). However, whereas the Groningen Conference served as a general survey of problems deserving the attention of workers in galactic structure, the Stockholm discussions were of a more specific nature, dealing with problems whose importance had become particularly evident in the course of the past four years. The first session was devoted to work on star clusters, the investigations of which have become so intimately related to those of galactic structure. The important role of investigations of the Magellanic Clouds in connexion with galactic research was stressed by a special session on the Clouds following the sessions of galactic problems. The various topics were arranged approximately in the order of the Groningen Report.

Most of the subjects were introduced by one of the participants with a review of recent work, and these introductions were followed by discussions of varying length. In accordance with a decision taken at the Conference the present report has the same character as that of the Groningen Conference in that it does not give the introductory papers in full, but rather describes their main points and relevant parts of the discussions. It was considered that such a report, while lacking in the precision with which the introductory remarks are reproduced, has the advantage of conciseness. Since the emphasis of the meeting was on the discussions rather than on

the introductory papers, we shall not list all the speakers but refer to the report itself for their names.

Participants

Participants from outside Sweden were: W. Baade, A. Blaauw, D. Chalonge, O. J. Eggen, Ch. Fehrenbach, W. Fricke, H. Haffner, G. Haro, O. Heckmann, D. S. Heeschen, A. R. Hogg, F. J. Kerr, E. K. Kharadze, B. V. Kukarkin, P. G. Kulikovsky, W. W. Morgan, J. J. Nassau, J. H. Oort, P. Th. Oosterhoff, P. P. Parenago, L. Perek, N. G. Roman, A. Sandage, A. D. Thackeray, A. N. Vyssotsky, M. F. Walker, H. F. Weaver, G. Westerhout, R. v. d. R. Woolley; whereas the following Swedish astronomers participated: A. Elvius, T. Elvius, E. Holmberg, G. Larsson-Leander, B. Lindblad, P. O. Lindblad, K. Lodén, L. O. Lodén, K. Lundmark, E. Lyttkens, K. G. Malmquist, J. M. Ramberg, A. Reiz, O. Rydbeck, C. Schalén, U. Sinnerstad, I. Torgård, Å. Wallenquist.

Conclusions reached at the conference

The principal conclusions of the conference are summarized in section IV, which is largely based on the summarizing talk by J. H. Oort. This section includes mentioning of a small committee, appointed in order to explore possible ways of investigating the density distribution of various population components in the region around the sun.

A proposal for establishing photometric standards to be used in cluster work is added as an appendix to this report. It was drawn up by a small committee during the conference, consisting of H. Haffner, P. Th. Oosterhoff, A. Sandage and M. F. Walker (chairman).