

in Figure 1. As is to be expected, most of these stars are situated in a zone within 15° south of the equator.

For the greatest portion of the sky, the distribution of good-history stars is too poor to make use of them in connection with galaxies. It should be remembered that the fundamental stars do not occur in the volumes searched.

We cannot remedy history so we have to proceed as fast as possible with covering the sky by photographic means.

DISCUSSION

Dieckvoss: I am in favour of omitting observations made before 1900, the errors of old meridian catalogues being as they are.

Eichhorn: I think that the question of the value of old catalogues has been oversimplified in the past. The question of whether an old catalogue can be salvaged by determining the systematic errors of the positions in it depends on a number of parameters, among others the homogeneity of the errors and the number of stars in the catalogue in question. It is the accuracy with which the systematic errors can be determined which is most important for utilizing an old catalogue. Brosche's work has been an important step in this direction. The statistical analysis is complicated, and we are now in a position to use a better criterion for using or not using a catalogue than whether its epoch is before or after 1900.

Van Herk: In 1845 a paper was published in which observations up to 1843 had been used to demonstrate the non-rectilinear motion of Sirius. The period of the 'wobble' was predicted to be very close to 50 years (we have it now 49[·]99) and the amplitude was estimated about 5 to 10% in error of the present value. It was Bessel's paper, and he could not have done it if the observations had been as bad as all that.