

PROGRESS REPORT ON A SEARCH FOR PARALLAX STARS IN THE REGION OF THE
SOUTH GALACTIC CAP

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A series of plates is being taken with the U.K. 48-inch Schmidt Telescope at Siding Spring on a field centred on the star GC 1110 near the South Galactic Pole, in order to detect any stars brighter than about $m_{pg} = 18$, which may have significant trigonometric parallaxes.

A search list of more than 16,300 objects in an area $4\frac{1}{4}^{\circ} \times 4\frac{1}{4}^{\circ}$ has been formed from a preliminary scan on the GALAXY machine at R.G.O. From 1974 January to 1976 January some 30 plates have been obtained, nearly half of which have been measured in each of two orientations on GALAXY; each measuring run takes about 16 hours.

A preliminary astrometric reduction of five plates extending from 1974.0 to 1975.5 indicates that the positional accuracy achieved using simple linear transformations, is about ± 0.08 per plate for 50 SAO stars uniformly distributed over the whole measured area. It is hoped, that, after a five year observing programme, parallaxes with standard errors of about ± 0.07 , at least for the brighter stars, will be obtained.