

THE NEED FOR HIGH RESOLUTION FOR POLARIZATION STUDIES OF GALACTIC BACKGROUND RADIATION

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ABSTRACT. Polarization data at 390 and 826 MHz were obtained with the 300-foot telescope in February 1987. A survey of selected regions of sky planned for December 1988 had to be postponed. However, our limited data at 390 MHz show that the 30' beam detected polarization temperatures between four to six times larger than found in surveys with a 1.3 arcmin resolution. This was true in both the highly polarized region around $l=140$ degrees and in the North Polar Spur where polarization structures appear to be unresolved (<0.9 pc at the distance of the spur). High resolution observations will be critical to our understanding of the interstellar magnetic field and the scale-length of depolarizing structures.

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