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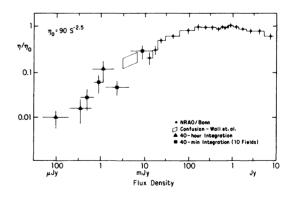
In order to extend radio source counts to lower flux density, we have used the VLA to survey a small region of sky at 4.885 GHz (6 cm) to a limiting flux density of 50 μJy . Details of this deep survey are given in the paper by Kellermann et al. (these proceedings). In addition, we have observed 10 other nearby fields to a limiting flux density of 350 μJy in order to provide better statistics on sources of intermediate flux density.

A total of 13 sources from the Deep Survey and 26 sources from the Intermediate Survey were used to construct the source count. The new VLA data includes the weakest radio sources yet observed and extends the observable range of flux density by nearly two orders to magnitude to reach a source density of 600,000 sources ster⁻¹ (Fig. 1). For the first time, the observed range of flux density exceeds the width of the luminosity function, and this will allow a better definition of the luminosity function and its spatial evolution.

Below 100 mJy, the 6 cm source count converges, although less rapidly than in the 75 cm Cambridge 5C Surveys. None of the 13 sources found in the "Deep" Survey show a visible counterpart on the PSS; they are probably faint distant galaxies beyond the plate limit.

Figure 1. Differential source count normalized to a static Euclidean Universe. Data above 10 mJy are taken from the various NRAO/Bonn surveys.

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