Using the BU-Arecibo Galactic HI Survey (Bania 1999, private commu
the highest possible angular resolution for 21 cm H I emission obs
telescope ($4'$), we can resolve the distance ambiguity for the majority of

First GRS Results

Fig. 2 shows first moment maps for ^{13}CO J=1→0 and CS J=2→1
square degrees of the GRS emission in the velocity range 0−80 km
∼62,000 positions on a Nyquist sampled grid for both molecular specie

The ^{13}CO emission shows a combination of molecular clumps, arcs and
were Nyquist-sampled, we detect structure on all scales down to the re
because the plot range is well above the 3σ sensitivity level, every featu
to a real cloud fragment. We can, therefore, decompose the clouds i
and cores than previous studies and associate those with a large numbe
GRS substantially improves not only the sensitivity for the detection
also the ability to associate clouds with infrared sources, an important
the infrared luminosity function of Young Stellar Objects. Note that al
overlap *spatially* in the moment map, they are well distinguished in *v*
maps in Fig. 1 on the second poster).

Although the CS emission shows the same basic appearance as the ^{13}
enhanced toward the higher density cores. The intensity ratio of CS
the compact cores. Low level CS emission, however, is detected towa
positions with detectable ^{13}CO emission (averaged over a few square ar

The GRS compared to previous Sur

A comparison of the new ^{13}CO GRS data with the ^{12}CO UMASS S
Columbia surveys is shown in Fig. 3. This figure reveals the vast amo
details provided by the GRS which exploits the full resolution of the
Although the UMSB survey was observed with the same telescope, an
resolution, many compact sources escape detection because this survey w
($3'$ spacing).