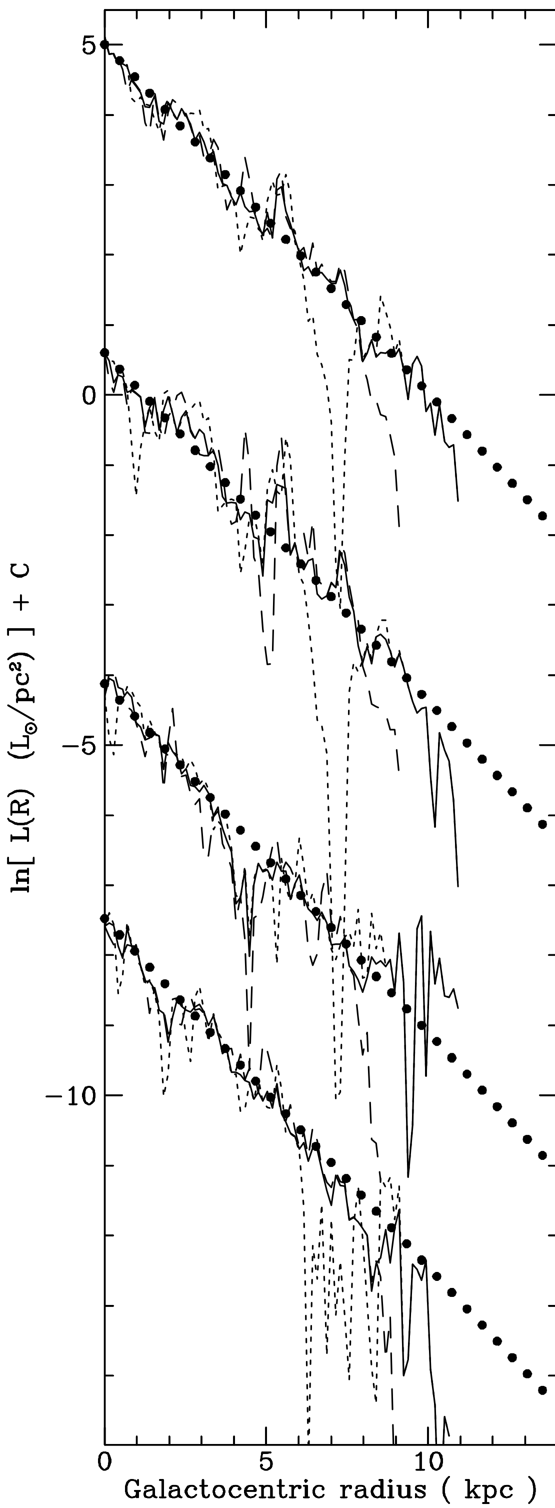

Fig. 16.— In this figure I present four radial light profiles, each again composed of three profiles: SW, NE, and average. For clarity, the profiles have been offset by a constant C. From top to bottom the profiles are derived from: a) all light (C=0.69), b) all light within 420 pc from the major axis (C=-2.81), c) all light more than 420 pc "above" (east of) the midplane (C=-6.31), and d) all light more than 420 pc "below" (west of) the midplane (C=-9.81). Extinction is not important in the determination of the radial scale length ($h_{\rm R}$) because all profiles are consistent with the same radially exponential distribution, with $h_{\rm R}$=2.0 kpc (the filled circles).

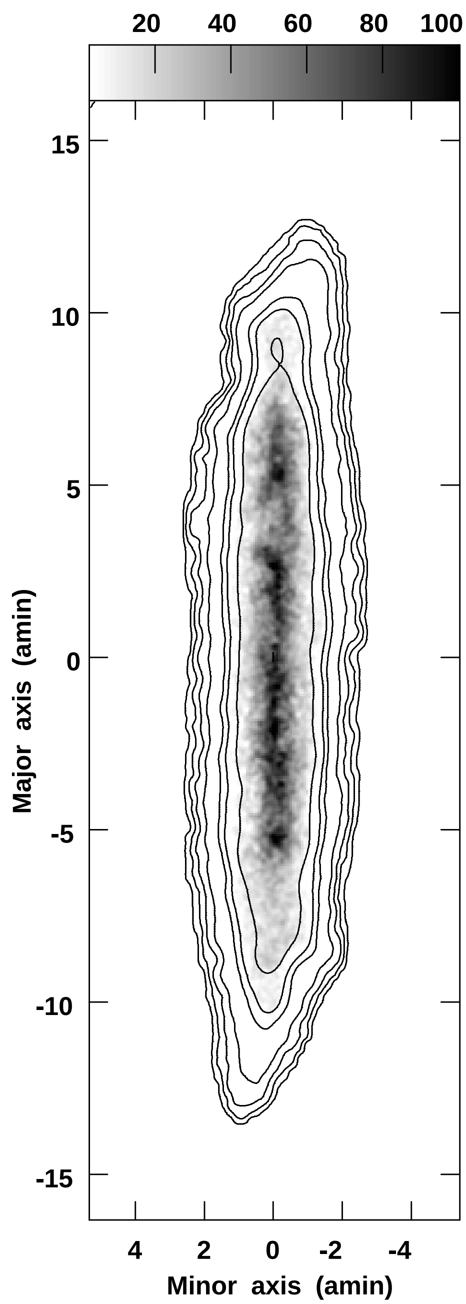

Fig. 17.— Two representations of the total H I distribution are shown. A low resolution (38″x38″ , 665 pc) contour plot is superimposed on a high resolution (10″x10″ , 175 pc) grey scale image. The image has been rotated counterclockwise by 48°(NE is upp, SW is down). The units for the contours (0.1 0.4 0.8 1.6 3.2 6.4 12.8) and the greyscales are 10^{20} cm^{-2}. A tickmark along the vertical axis, 1′ , corresponds to roughly 1 kpc. The slight warp sets in around 9 arcmin, the edge of the optical disk. Clear features in the high resolution image are the the high surface brightness peaks seen on both sides located approximately 6 arcmin from the center. Notice an approximately 2 kpc diameter region of low column densities, extending from about +3 to +5 kpc. The edges of this feature seem to extend to larger height above the plane. This feature is also clearly visible in the channel maps (Fig. 19).

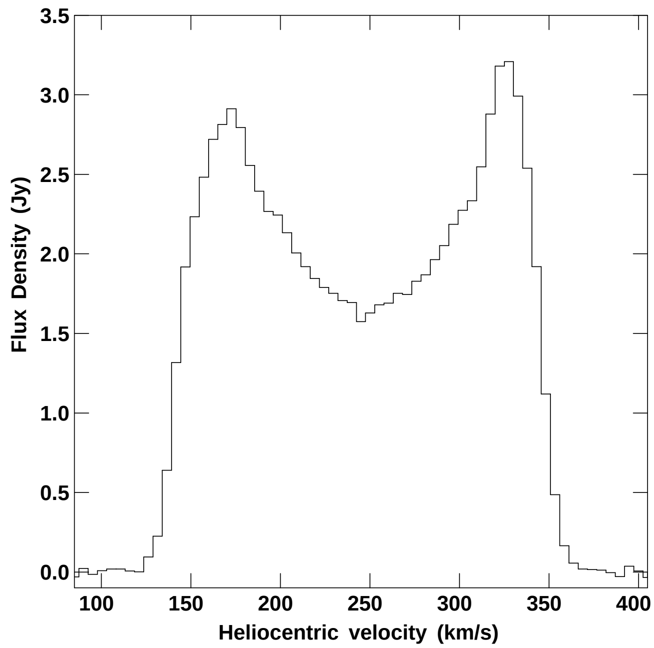

Fig. 18.— The Global Profile, or the total H I flux as a function of velocity, determined from the 55″x55″ resolution data set. The systemic velocity is the mean of the 10%, 20% and 50% points, 244.4 ± 0.4 km s^{-1}. A small asymmetry between the approaching and receding sides can be seen. Typical uncertainties in the flux equal 0.025 Jy/channel.

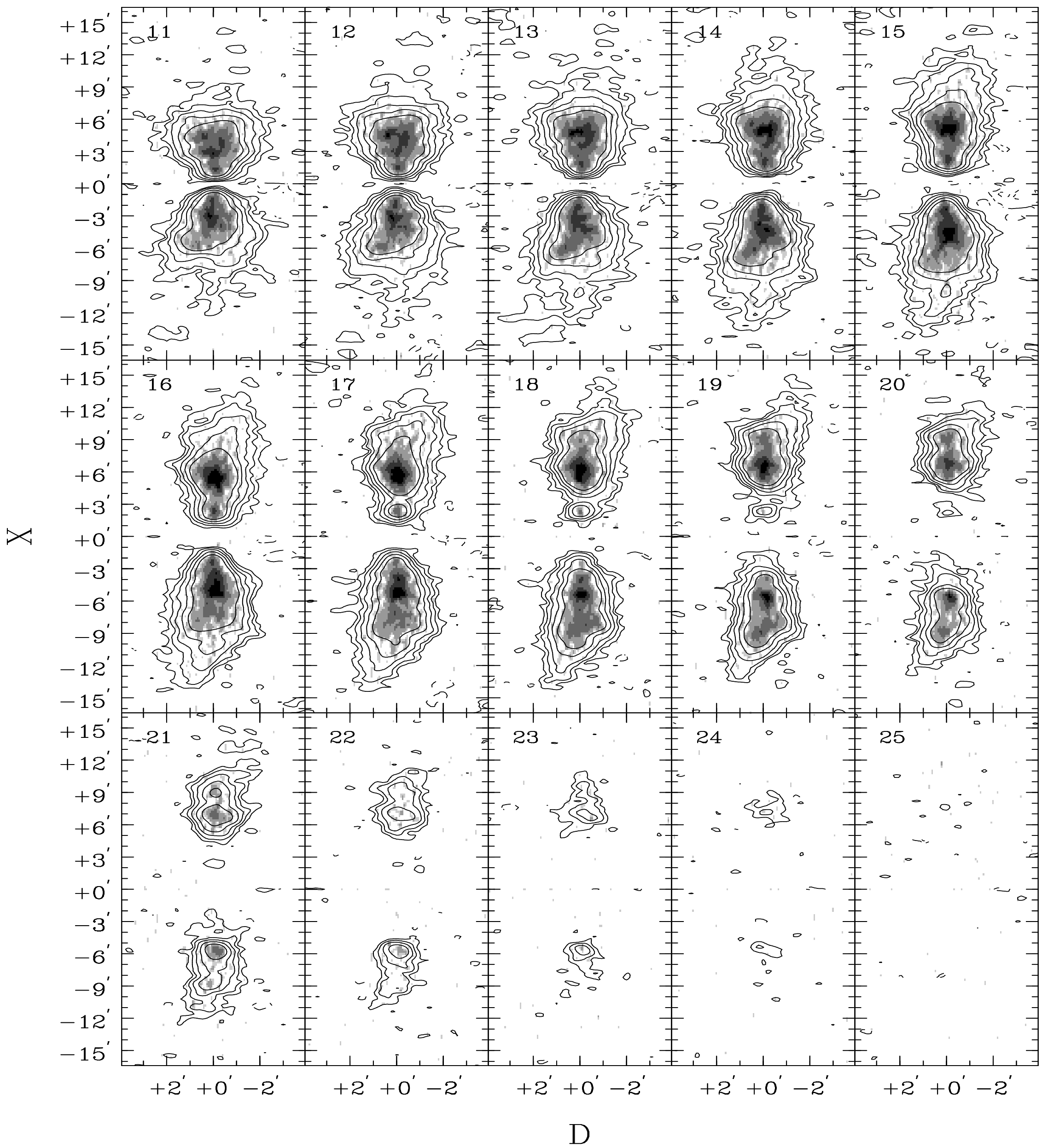

Fig. 19.— A contour representation of the channel maps at 38″x38″ (665 pc) resolution superposed on a greyscale image of the channel maps at 28.″3x10.″1, (495x177 pc) resolution. The greyscale levels correspond to column densities of [1 1.5 3 6 9] 10^{20} cm^{-2} (the lowest level is $\sim 2.6\sigma$), the line contours to [-0.07 0.07 0.1 0.2 0.4 0.8] 10^{20} cm^{-2} (the lowest contour is $\sim 2.5\sigma$). The channels of the approaching and receding sides are combined into one frame. The value printed in the upper left corner indicates the velocity offset from the systemic velocity (i.e., $\mid V_{\mathrm{chan}} - V_{\mathrm{sys}} \mid / \Delta V_{\mathrm{chan}}$). In order to visualize the vertical structure better, the horizontal scale is expanded. The orientation is as in Fig. 17, the distances are relative to the pointing center listed in Tab. 4,