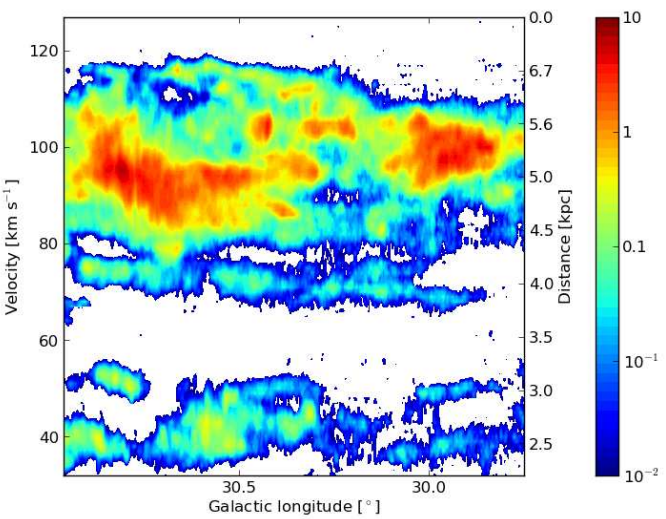
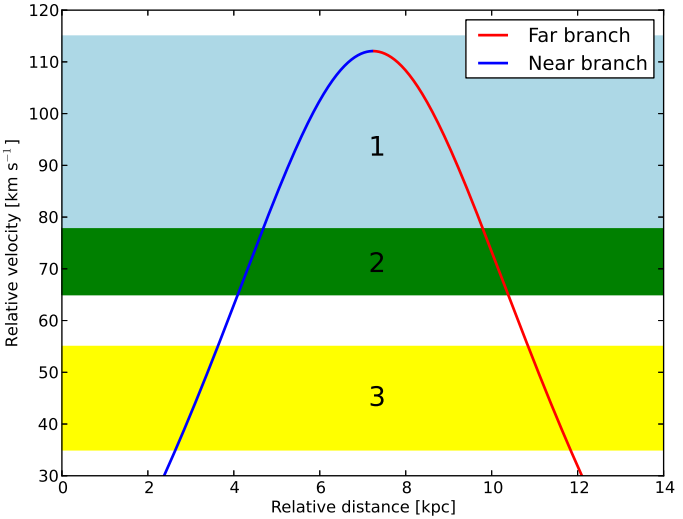
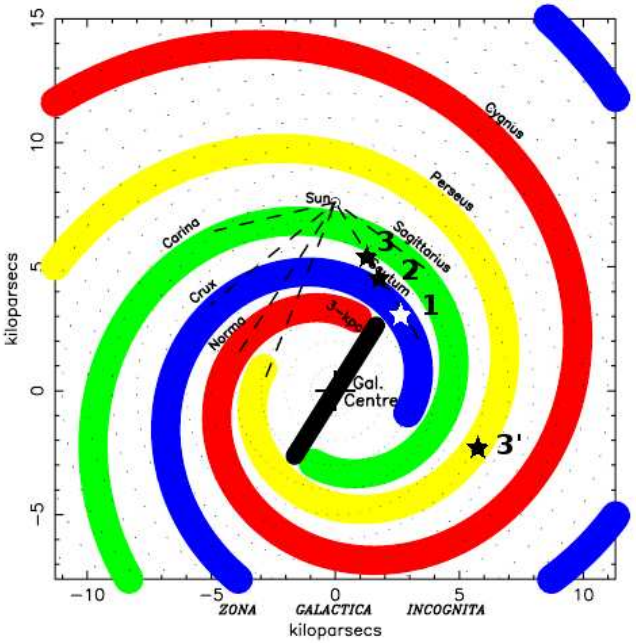


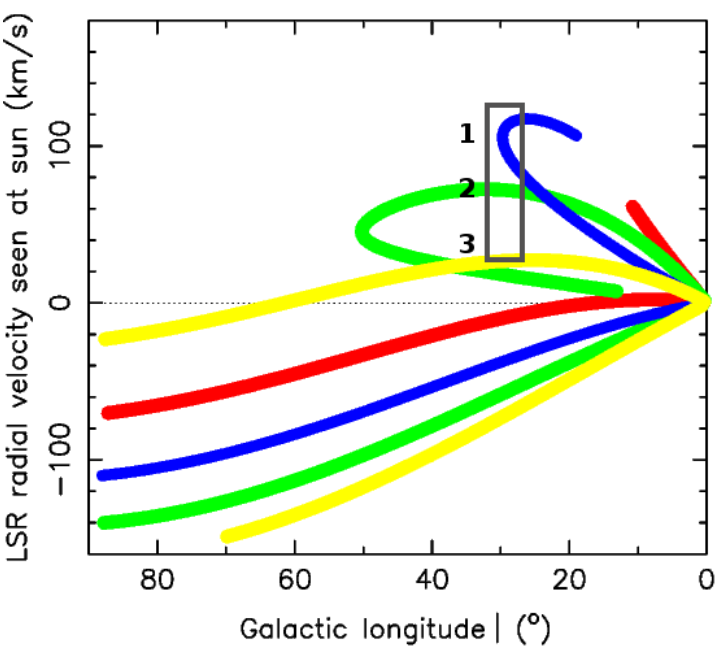
(a) PV-diagram of ^{13}CO (2–1) in [K] that is averaged along the Galactic latitude, showing several velocity components. The *y*-axes show the velocity and distance, according to the rotational model seen in **b)**.



(b) Simple rotational model of the Milky Way relating the relative velocity and the distance to the Sun for 30° Galactic longitude. The stripes denote the different velocity components found in **a)**.



(c) Model of the spiral arm structure of the Milky Way from Vallée (2008). The position of the W43 complex is marked at (1), the fore-/background complexes at (2), (3), and (3′).



(d) PV-diagram of the model from (Vallée 2008) showing relative velocities of spiral arms in the first quadrant. The interesting part is around 30° Galactic longitude (gray box), where W43 is located.