KINEMATICS OF THE BARRED GALAXY NGC 1365

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NGC 1365 is a galaxy which has lately received a lot of attention from people studying the structure and dynamics of barred galaxies. This is not surprising since it is one of the best suited objects in the sky. We have obtained a number of long-slit spectra in the red region (Hα, [NII], [SII]) with the ESO 3.6 m (Lindblad and Jörsäter) and with the CTIO 4 m (Peterson) telescopes. In addition, a couple of Fabry-Perot Hα interferograms have kindly been given to us by G. Comte and Y. Georgelin. Some preliminary results are presented here. Fig. 1 shows the positions of measured velocity points. The digits along the vertical axis indicate distance from the nucleus in seconds of arc. The dashed line at P.A. 48 deg indicates the line of nodes as determined from photometry of the outer features of the galaxy (Lindblad 1978). An arbitrary isophote has been sketched to aid the orientation. The emission lines in the bar are surprisingly weak which is the reason for the scarcity of velocity points there. Fig. 2 shows a rotation curve based on the P.A. of the line of nodes of 48 deg and an inclination of 55 deg (Lindblad 1978). Only velocity measurements within 50 deg of the line of nodes have been used in this diagram in order to avoid large projection errors. The distance used is 20 Mpc. The spread is quite large indicating a significant amount of non-circular motion.

REFERENCES

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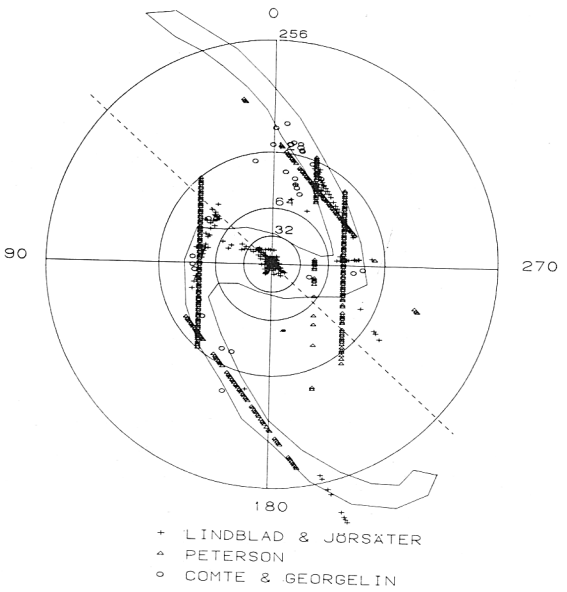

Fig. 1

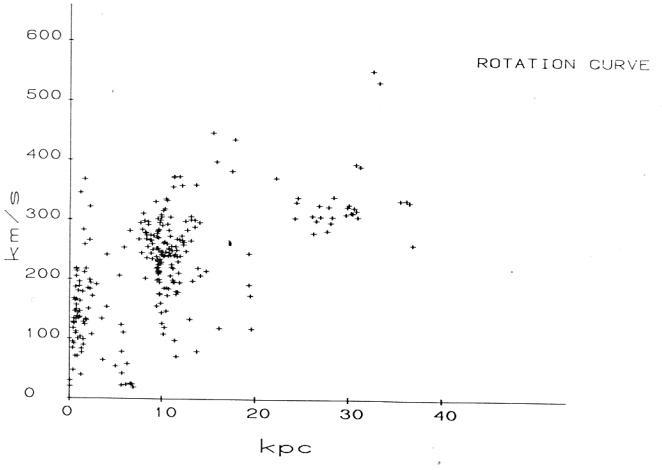

Fig. 2

https://doi.org/10.1017/S0074180900032939 Published online by Cambridge University Press