

# Calculation of mass distribution and total mass of galaxies from their rotation curves

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This is a selective bibliography of papers, which deal with calculating the mass distribution and the total mass of a disk galaxy, from the galaxy's rotation curve, on the two assumptions: that all the mass is contained in the disk, and that there is no modification of the Newtonian inverse-square law.

The references are presented in approximately chronological order. Some authors investigate specific galaxies, and calculate their mass distribution and total mass, therefore I have appended, to those references, a list of the galaxies examined.

Nicholson [1][2][3][4][5] presents, initially in 2000, an iterative method of numerically calculating the mass distribution and total mass of a disk galaxy from its rotation curve. He applies the method to calculate the mass distribution and total mass of several hypothetical and of several real galaxies.

Jalocha et al [6][11][12][14][15][23][24][25] independently present a different method, and calculate results for a number of galaxies, and constructively address the important issue of the relationship between luminosity and surface mass density.

Banhatti [7][9][10] examines the importance of context-awareness in galactic computations.

Feng and Gallo [8][13][16][19][22] present a method based on that of Nicholson, and calculate results for several galaxies.

Williams [17][20] independently presents a method similar to that of Nicholson, and applies it to examine numerous galaxies.

Marmet [18] also examines the subject.

Pavlovitch et al [21] independently present a method similar to that of Nicholson, and implement it to calculate results from the rotation curves by Sofue et al, of a large number of galaxies.

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