ASTR 400B

Home Work 3

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Questions :


1. The total mass of MW and M32 in this simulation were equal to value $2.06* 10^{12}\,M_{\odot}$

   And the galaxy component that dominate this total mass will be the Bulge and Disk mass
   .

2. The Stellar mass of MW and M31 by combining the total mass of both galaxies get the value of $4.12*10^{12}\,M_{\odot}$, and for the expectation of luminosity , M31 galaxy is more luminous .


3. The total dark matter of masses found by Take the ratio of Hallo mass :

$$\frac{MW}{M31} = \frac{1.97}{1.921}$$


4. The Baryon fraction for :

   MW : 0.041

   M31: 0.046

   M33 : 0.045