



In [ ]:

1

In [306]:

```
1 """Quesition 2"""
2 print ("Question 3 Results")
3 # Calculate the seperation between MW and M31 position
4 SepP = np.round(np.sqrt(np.sum((MWp - M31P)**2)),3)*u.kpc
5 # Calculate the seperation between MW and M31 velocity
6 SepV = np.round(np.sqrt(np.sum((MWV - M31V)**2)),3)*u.km/u.s
7 # Print results
8 print ("The magnitude of current seperation of position between MW and M31 is: %s\nThe magnitude of current seperation of vel
9
10
11 """Question 3"""
12 # Calculate the seperation between M33 and M31 position
13 SepP = np.round(np.sqrt(np.sum((M33P - M31P)**2)),3)*u.kpc
14 # Calculate the seperation between M33 and M31 velocity
15 SepV = np.round(np.sqrt(np.sum((M33V - M31V)**2)),3)*u.km/u.s
16 # Print results
17 print ("The magnitude of current seperation of position between M33 and M31 is: %s\nThe magnitude of current seperation of ve
```

Question 3 Results

The magnitude of current seperation of position between MW and M31 is: 769.817 kpc

The magnitude of current seperation of velocity between MW and M31 is: 117.162 km / s

The magnitude of current seperation of position between M33 and M31 is: 201.083 kpc

The magnitude of current seperation of velocity between M33 and M31 is: 199.37 km / s

Question 4

The iterative process it important be would like to examine how the center of mass of the two galaxies interact with one another.

In [ ]:

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