

ASTR 400B HW7

Analysis and Answers

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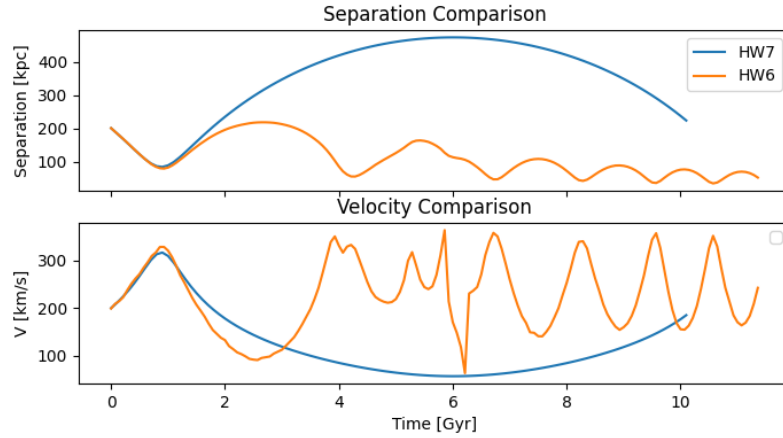


Figure 1: M31 Orbit HW7 vs HW6

1. The plots are very different. While one seems to show many close encounters, the other only shows one close encounter, and then the two galaxies move away on a long arc before coming back together.
2. The dynamical friction from the Dark Matter Halo seems unaccounted for. Could it be the reason we don't see a more dramatic interaction at the start?
3. We could include the MW by creating a similar class for MW's effect on M31, and simply incorporating it into the calculation. Though, this seems like a naive approach, as it does not consider M33's effect on the MW.