

ResearchAssignment1

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5 Galaxy Merger Sequence of MW and/or M31: stellar evolution through close encounters

- how does the “observed” and mass-derived rotation curve of each galaxy evolve (disk + bulge) ? (“observed” meaning plot the simulated disk particle line of sight velocity field edge on).
- how does the velocity dispersion of each galaxy evolve (bulge/disk) throughout the interaction ?
- how does the stellar (surface) density profile of each galaxy evolve (disk and/or bulge) ? i.e. Sersic profiles, disk warps, exponential density profiles?
- how do the bars within both galaxies evolve? What happens to those bars after the merger?
- what is the evolution of stellar debris in tidal tails and bridges throughout the merger?