Grading Rubric : ASTR400B Research Assignment 2

Name: [Surana,Suhani](https://github.com/SuhaniSuranaArizona/ASTR400B)

**A Introduction 8/ 10**

Each of the below points should be a separate paragraph in your introduction.

1. Define the Proposed Topic. 1/1
2. State why this topic matters to our understanding of galaxy evolution. 2/2
3. Overview our current understanding of the topic. 2/2
4. What are the open questions in the field? 1/2
5. Cite at least 3 journal papers. Use BibTex for formatting citations 1/1
6. Include at least one figure with caption from those papers to motivate your work. 1/2

**B. The Proposal 6 / 10**

They must answer each of the below questions as separate subsections.

1. What specific question(s) will you be addressing? 1/1
2. How will you approach the problem using the simulation data? Here you should outline the codes you’d need to write. It can be in general terms. 3/5
3. Include at least one figure that illustrates your methodology. 0/2
4. What is your hypothesis of what you will find? Why do you think this will occur? 2/2

**C. Misc. 3/5**

1. Proper Grammar 1/1
2. Included a bibliography 1/1
3. In Latex and ApJ/MNRAS formatting 0/2
4. On Time/On Github 1/1

**TOTAL** 17**/25**

**Late Penalty:**

* if submitted on due date, but after 5 PM  **(-5 points).**
* Proposals will **not be accepted** after the due date.

**Comments: -1: need more context on the open questions. -1: need a more detailed figure caption. -2: you are trying to do too many things. Up to the v/sigma analysis is fine and you do not have to do angular momentum and fundamental plane - keep it simple. -2: no figure for methods. -2: citations not in bibtex and no ApJ/MNRAS format. Talk to us.**

**Center of mass calculation – remember that there is an iterative process (Shrinking sphere method) to determine the center of mass - so explain this part of the code.**

**To determine the rotation curve you could compute the average v$\_\phi$ in radial bins (cylindrical coordinates) as a function of radius. This would more accurately give you the vmax you need to compute v/sigma.**

**Make sure to explain how you are computing the velocity dispersion . How are you identifying the half mass radius ?**