

Honors Reader Form

Student Name: Swapnil Bhatta

Current Title of Thesis: Perturbation of Lagrange Points in Effective Potential Simulations

The Southern Miss Honors College (HC) has created this form to guide the Honors Readers in reviewing a thesis manuscript. Please leave comments in each section that we can share with the author of the manuscript. After reviewing each section, please make general comments on the second page of this form.

1. HC Formatting

Please review the manuscript for HC format compliance using the [Sample Preliminary Pages](#).

- a. **Preliminary Pages.** Please access the Preliminary Pages and ensure that the manuscript's preliminary pages' match. Things to consider include the Title Page format and date, the approval page format, and that roman numerals are in the preliminary pages.
- b. **Table of Contents (ToC).** Please access the Preliminary Pages and ensure the manuscript matches. Things to consider include that Arabic pagination is in pages after the preliminary pages, that ToC page numbers match page numbers in manuscript, and that headings and subheadings are consistent.

General Formatting. The entire manuscript should be double-spaced, in Times New Roman, black font; the IRB/IACUAC Approval letter should be included in an appendix if applicable.

Comments: Overall this thesis is very well-written. The research topic is introduced clearly, and the work is described well. However, there are significant deviations from the format provided in the Honors College example. These deviations have been noted in the manuscript comments and using the "Track Changes" function in MS Word.

2. Content/Scope of Project

Please review the manuscript for clear statement(s) of objective(s), appropriate incorporation of secondary sources and supporting literature, and thorough explanation of results and analysis of findings. Please also review the manuscript in regards to the scope of project; it should be appropriately ambitious and well developed.

Comments: As noted above, this thesis is clear and concise in defining the objective of the work while providing sufficient literature review to introduce the topic. The methods used in the computational work are described well, and the results are documented thoroughly. The overall scope of the project is commensurate with undergraduate research in physics and appropriately ambitious for an honors thesis.

3. Clarity, Conciseness, and Consistency

Please review the manuscript for clarity, appropriate paragraphing, conciseness, professional tone and language appropriate to discipline, consistency of tense, voice, and authorial point of view.

Comments: Although there are issues with the formatting of the document, the writing is very clear, at least for those with the needed background in physics and mathematics. The document is not overly verbose, but it does provide the needed explanation to understand the topic and the work accomplished. It was very easy to follow the author's organization of the material and the tone and voice were appropriate for the work.

4. Grammar and Punctuation, Typographical and Stylistic Errors



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Please review the manuscript and determine, if any, what type of punctuation, grammar typographical, and stylistic edits need to be made.

Comments: **There were a few minor typos** as marked in the document itself. **However , the document is not in need of major stylistic revisions.**

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5. Citation Style/Bibliography

Please review the documentation (footnotes, bibliography, etc.) of the thesis manuscript; to the best of your abilities, please determine whether the thesis maintains a consistent documentation style dictated by the student's discipline.

Comments: The references to web-accessed material are clear enough. However, the first reference to Lagrange's work in 1772 appears to be incomplete. References 7 and 10 refer to a USM thesis and what appear to be faculty materials respectively. The format here should be checked against the recommended citation formats in Aquilla.

6. General Comments:

Please summarize your overall assessment of the thesis, including both the strengths of the project and the improvements the writer needs to make in order to meet Honors standards.

Comments: Overall this is a well-written document outlining a computational assessment of the impact of perturbing bodies on the position of Lagrange points in a 3-body gravitational system. It is at an appropriate scope and level for an undergraduate honors thesis. No major revisions are required. There are a few minor typos and corrections as indicated in the document markup. The primary issue is fixing the format to match the Honors College example. Once the format is fixed, the document will be in very good shape.

7. Please provide an overall assessment:

☐ this thesis exceeds Honors standards

☒ this thesis meets Honors standards

☐ this thesis falls below Honors standards