Astr450 Assignment 5: Expansion of the universe
due Thu Oct 1, 2009

Word limit: 250

Skim-read the wikipedia article, “metric expansion of space”,
http://en.wikipedia.org/wiki/Metric_expansion_of_space

Answer the following questions, in numbered answer format. Be sure to use your own wording, do NOT imitate the wording of the article.

1. Explain why it is incorrect to say that the universe is expanding outward into nothing, like an explosion.

2. Explain how the universe can be said to be infinite, and yet expand.

3. Explain why the expansion of the universe will not pull apart the planets from the Sun in our solar system.

Requirements for a good assignment

- The assignment is not a group project. All work must be completely original. The assignment will be graded strictly, as expected for a 400-level course. All assignments are weighted equally.
- Have your name, SID, and a word count at the top of the paper. Use question-and-answer format when writing your assignment, do NOT hand in a run-on paragraph (50% penalty).
- Be typed, double-spaced, and within the word limit. Assignments longer than the word limit will receive zero credit. Equations and diagrams can be hand written.
- Reference all sources of information you use.
- Use quotations only to illustrate your point, not to make it. If you are unclear about this requirement, then speak with the instructor.
- Show completeness of information, conciseness of expression, have a logical development of ideas, and evidence of thought regarding the content.
- Be professional of presentation, e.g., no ragged ends, creases, or ink blobs on the paper.
- In all ways, show pride in your work.