Homework Assignment #2, Understanding a Paper

For this assignment, chose one of the following seminal physics papers:


Read the supplementary information about each paper to inform your choice.

The purpose of this assignment is to practice techniques that will help you to read and *understand* physics papers. The assignment consists of multiple parts—be sure to do them all!

1. Read the first paragraph of the paper, and then, without looking at the rest of the paper, write a several-sentence description of what you think the rest of the paper will say.

2. Look at the figures and tables. Write a new several-sentence description of what you think the main points of the paper will be.

3. Read the first sentence of each paragraph of the paper. (Don’t read anything else, just the first sentence of each paragraph.) Is it a topic sentence? If not, find the topic sentence in that paragraph. Paraphrase the topic sentences of each paragraph in the paper in your own words and write them down. Highlight anything you don’t understand.

4. Look at your sentences. Can you see a logical progression of ideas? Summarize the logical argument.

5. Go back and look at the paragraphs of the paper. Pick one random paragraph and answer the following questions about it:
   a. What is the topic sentence of this paragraph? (contains the main idea)
   b. What sentence(s) explain the topic sentence?
   c. What sentence(s) add supporting detail or evidence?
   d. Identify any summary or transitional sentences.

6. Go back to one of your outline sentences that you highlighted. Study that paragraph. Does it answer your questions? If you still don’t understand it, write a strategy you could use to find out what it means.

7. Read the conclusions section of the paper. Does it adequately recap the main ideas presented in the paper?

8. Comment on the overall organization of the paper. Were the main points clearly identified and supported by evidence? Could you follow the authors’ logical argument?

Email your completed assignment to phys496@physics.illinois.edu by **Friday, February 3, 9 p.m.** Assignments submitted after the deadline will be downgraded and will be ineligible for rewrite points.

Total—50 points