

Physics 596 – Fall 2011

Assignment #1: Create and Present a “Journal Club” Talk and Referee Report

This assignment will consist of two parts:

I. Journal club presentation: Your team should select a short (≤ 5 pages) journal article from a general science journal such as *Science*, *Nature*, *Physical Review Letters*, *Physics Today*, etc. Prepare an approximately 15 to 20 minute Power-Point presentation that describes and critiques this article. Your “journal club” presentation should include the following elements:

- (i) A summary of the article.
- (ii) A comparison of the article’s results and conclusions with those of previous (relevant) work.
- (iii) A critical analysis, by you, of the results and conclusions presented in the article.
- (iv) A summary of conclusions made by both the article’s authors and by your group.
- (v) A “citation” evaluation of the number of papers that have cited your paper, and a brief description of how the field has evolved since your paper was published

The due dates for your journal club presentation are as follows:

Friday, Sept. 9: Select a paper - Tell Professor Cooper by email the paper that your team has selected. More than one group cannot give a journal club talk on the same paper. So, to get your first paper choice, inform me of your paper choice early.

Oct. 14 and Oct. 21: Journal Club in-class presentations

II. Referee report – In addition to the journal club presentation, each team member must *individually* prepare a ~ 1 page “referee report” that critically evaluates the team’s journal club paper. Each report must specifically evaluate the paper based upon the following 3 (*Physical Review Letter*-type) criteria, providing examples and support for these evaluations:

- (i) “Scientific validity” – Are the methods used valid, and are the logical arguments given to support the conclusions valid and persuasive?
- (ii) “Importance” - Does the paper report substantial research that will likely have a significant impact on future research?
- (iii) “Broad interest and accessibility” – Do the results reported have significant implications to various subfields, and is the paper written in such a way that it can be understood by a general (i.e., non-expert) audience?