

Physics 595 – Spring 2023

Assignment #2: Prepare & Present a Journal Club or Research Presentation

Create and Present a Journal Club or Research Presentation: You will prepare and present a 20- to 25-minute oral presentation in this class to the non-expert audience Phys 595 audience. You have the choice to give a talk on your own research (research presentation) or on a paper in an area related to your research but not from you or your research group (journal club presentation).

First, if you plan to give a journal club presentation, you should select a short (≤ 5 PRL-style pages) journal article either from the arXiv (<http://arxiv.org/>) or from a recent general science journal such as *Science*, *Nature*, *Physical Review Letters*, *Physics Today*, etc. Again, this paper should be in an area related to your research, but should not be from you or anyone in your research group. Prepare a 20-minute PowerPoint presentation that describes and critiques this article.

Your research or journal club presentation should include the following elements:

- (i) The motivation for your research (in a research presentation) or the research described in the paper you've selected (journal club presentation).
- (ii) A discussion of relevant background material the non-expert audience needs to know to understand the key results presented.
- (iii) A discussion of the key research results and conclusions.
- (iv) In the case of a journal club presentation, a critical analysis of the results and conclusions presented in the article. In the case of a research presentation, a discussion of the interpretation of your research results and the impact of those results.
- (v) A summary of the results and conclusions of the research results.

This assignment is worth 200 points.

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

Friday, Feb. 10: Tell Lance Cooper by e-mail (slcooper@illinois.edu) whether you will give a journal club or research presentation. If you plan to give a journal club presentation, please send me an electronic copy of the paper that you have selected so I can make sure the paper is appropriate. You can make changes later, but I'd like to have some idea of who will give research presentations and who will give journal club presentations.

March 3, March 10, March 24, April 14, and April 21: In-class journal club or research presentations.