

**PHY 901**  
**Frontiers in Physics**  
**Spring 2008**

Instructor: S. D. Mahanti  
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BPS 4269, 355-9200, Ext 2303  
Time: Thursdays from 3:00-3:50 pm  
Room: BPS 1420

Purpose of this course is to give graduate students an opportunity to read and study articles dealing with research in selected frontier areas of physics, defined primarily by the Colloquia on Thursdays in the Physics and Astronomy Department. The students are expected to attend the department colloquia on a regular basis (unless they have TA duties), take notes etc and participate in a brief (10 minutes) discussion in the class following the colloquium. In addition, they are supposed to read specific research articles chosen by Prof. S. D. Mahanti from the review journal CONTEMPORARY PHYSICS, which is in the library, and make a 20 minutes presentation in the class. Each article will be assigned to two students and they can prepare the presentation jointly, but both of them have to speak (~40 - 45 minutes presentation by the two). I will put a pdf file of the article in my home page ([www.pa.msu.edu/~mahanti/PHY901](http://www.pa.msu.edu/~mahanti/PHY901)) the week before the presentation in the class. Although only two of you will present the talk, **all** of you should read the article so that you can come prepared to take active part in the lecture followed by group discussion.

What is expected in this course?

1. Attending colloquia
2. Reading review papers
3. Summarizing what you learnt from colloquia and/or review papers
4. Give a 15-20 minutes talk

Please see the list of speakers and the dates they will make their presentation. Note that due to large number of students there will be a presentation during the final exam week (Thursday May 1, 3:00-4:30 p.m.)