Math 545, Projects for graduate students.

According to Graduate School policies, graduate students are expected to do approximately 30% more work than undergraduates. Graduate students in this course will, in addition to the above work, complete a long-term Project. These projects will constitute writing a paper on one of the topics below. Feel free to use any books, search on the web, talk to others.

The projects will be due on the last day of class, and they should be designed in consultation with the instructor. An agreement between student and instructor about what the Project will be should be in place by the end of Week 5.

Possible project topics:

- 1. What is probability that two elements of finite group commute?
- 2. Why the addition is assumed to be abelian in the definition of ring?
- 3. Problems of linear algebra and path algebras of Dynkin diagrams.
- 4. Rings of algebraic integers (class groups, units etc).
- 5. Talk to me if you have your own idea for the project!