MATH 8450: Research Seminar in Mathematics.
Fall 2017
Instructor: Jonathan Weitsman
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MATH 8450: Research Seminar in Mathematics.
Prerequisites: Status as graduate student in Mathematics or permission of instructor.
Course description: This seminar is an opportunity for mathematics graduate students to learn about cutting edge research in geometry, topology, mathematical physics, combinatorics, representation theory, and other areas of mathematics from some of the top researchers in these areas, who will be visiting us in the Fall. Once every two weeks, an invited speaker will join us for lunch, and an informal discussion, followed by an elementary talk giving an introduction to the basic examples and main motivation for the research discussed, and aimed at graduate students. The speaker will then present a formal research talk open to all faculty and students, followed by questions and a further talk, and then by dinner. This seminar is modelled after the very successful graduate research seminar held by Dennis Sullivan at the CUNY Graduate Center for many years. Some of the speakers who joined us in the past were Shlomo Sternberg, Eckhard Meinrenken, Richard Schwarz, William Goldman, Andy Neitzke, Victor Guillemin, Lisa Jeffrey, Sarah Koch, Anton Alekseev, Benson Farb, Bertrand Eynard, Reyer Sjamaar, and Elisenda Grigsby.

Our initial schedule for this year includes:

- Victor Guillemin (MIT), September 19
- Sergei Gukov (Caltech and Harvard), September 26

Class schedule: Alternate Tuesdays in 509 Lake: Lunch 12-1, Introductory talk 1-2, tea 2-2:30, Formal talk 2:30-3:30, tea 3:30-4:15, second talk and discussion 4:15, dinner at 6:00.
Organizational meeting Wednesday September 6 at noon at 521 Lake Hall.

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Course requirements: Course requirements: Students registering for the course participate in the discussions and attend the talks. Guided by the Instructor, they prepare a written or oral report on one of the topics covered during the seminar, which they present to the other students and to the Instructor. The goal is to reinforce and recapitulate the topics studied and to develop practice in presenting research seminars, modelled after prominent research mathematicians.

This course satisfies the Research Seminar requirement for the Ph.D. degree.