Representation Theory, Geometry & Combinatorics Seminar

Organizer: M. Haiman and K. Reshetikhin

Wednesday, 4:00–6:00pm, 939 Evans

April 1   **Constantin Teleman**, UCB

Chern-Simons theory in dimensions 0,1,2,3 via higher categories

This talk will describe a very tentative approach for constructing Chern-Simons theory for a compact group G and a level in $H^4(BG; Z)$ using higher categories and group actions. One intended feature is that the 'small quantum group' should be an output and not an input of the method. At present, the construction works for finite groups (where it is nearly obvious) and for tori (where it is not), but some faint evidence in favor of a general theory will be discussed. This is a joint project with Dan Freed, Jacob Lurie and Mike Hopkins and is very much in flux.