

September 21, 2012
9:30 a.m. - 5:30 p.m.
Bissinger Room
4th floor, Howe Center
Stevens Institute of Technology
Hoboken, NJ

September 22, 2012
9:00 a.m. - 5:45 p.m.
Room C002
Hunter North Building
Hunter College (CUNY)
New York, NY

Url: <http://www.stevens.edu/algebraic/GTH/>

Group Theory on the Hudson

Rostislav Grigorchuk
(*Texas A&M University, TX*)

**“The relative rank gradient and the subgroup structure
of certain amenable groups”**

Abstract:

We will discuss the subgroup structure of a 3-generated 2-group of intermediate growth constructed by the speaker in 1980 and of the series of the lamplighter type groups. The notion of a relative rank gradient will be introduced and using the above groups it will be shown a number of features of its behavior. Some topics of the action of a group on a rooted tree and its boundary will be touched. This includes scale invariance, presentability by finite automata, freeness and totally non-freeness of boundary actions. Invariant random subgroups also will be mentioned and the role of Pouslen simplex in their study will be explained.

