## Geometry, Groups and Dynamics/GEAR Seminar (held at the Illinois hub of GEAR)

## 12:00 pm, Thursday, April 21, 2016, 243 Altgeld Hall

Paul Schupp (Illinois)

Finitely generated groups with co-c.e. word problem (d'apres Morozov)

Abstract: Let  $\mbox{mathcal}C\$  be the group of all computable permutations of the natural numbers. The general question is: What can one say about finitely generated subgroups of  $\mbox{mathcal}C\$ ? While most groups studied in geometric group theory have computably enumerable word problems, one sees immediately that a finitely generated subgroup of  $\mbox{mathcal}C\$  must have co-c.e. word problem, that is, the set of words equal to the identity in *G* is the complement of a computably enumerable set. Andrey Morozov proved two important theorems about finitely generated subgroups of  $\mbox{mathcal}C\$ . We will discuss these theorems and interesting connections of the basic question to other groups.

Video (unavailable)