

Meeting: 999, Nashville, Tennessee, SS 5A, Special Session on Topological Aspects of Group Theory

999-20-243 **Rostislav I Grigorchuk*** (grigorch@math.tamu.edu), Department of Mathematics, Texas A&M University, College Station, TX 77843-3368. *Presentations of automata groups and subgroups in direct products.* Preliminary report.

We will discuss the problem of calculating presentations of groups generated by finite automata.

In some cases we get finite presentations and in some cases the presentations are of the so called L -type, but it is difficult even to conjecture what kind of presentations arise in general (except that the groups are recursively presented).

The problem is closely related to the problem of finding presentations of subgroups in direct products of copies of free groups (and more generally in direct products of hyperbolic groups). The Mikhailova subgroups of direct products appear during the study of some particular cases.

The talk will include concrete examples of computations of presentations. (Received August 24, 2004)