"Group Theory International"
Online Seminar

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"An Example of an Automatic Graph of Intermediate Growth"

Thursday, October 3, noon (New York Time)

Abstract:

The class of Cayley automatic groups was recently introduced by Kharlampovich, Khoussainov and Miasnikov as a generalization of the class of automatic groups. This class retains many nice algorithmic properties of automatic groups, but is significantly wider. In particular, it includes many groups that are not finitely presented. One of the open questions about these groups is whether there is a Cayley automatic group of intermediate growth, or, equivalently, whether there is a group of intermediate growth whose Cayley graph is automatic. We give an example of a 4-regular infinite automatic graph of intermediate growth. It is constructed as a Schreier graph of a group generated by 3-state Mealy automaton.
This is a joint work with Alexei Miasnikov.

Next presentation: Oct 17, Anton Klyachko *(Moscow State University, Russia)*

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