

# “Group Theory International” Online Seminar

Artem Shevlyakov

*(Omsk State University, Russia)*

“*Compactness properties of systems of equations*”

Thursday, November 20, noon (New York Time)

## Abstract:

We consider systems of equations over groups and semigroups. For any infinite system of equations  $S$  one can set the following problems.

- (a) Is there a finite subsystem  $S_0$  of  $S$ , which is equivalent to  $S$ ?
- (b) Solve (a) if  $S$  is consistent.
- (c) Suppose an equation  $t = s$  is satisfied by all solutions of  $S$ . Is there a finite subsystem  $S_0$  of  $S$  such that  $t = s$  is deduced from  $S_0$ ?

Thus, we are going to talk about the Noetherian property and other close properties. We explain examples (groups or semigroups), where the problems (a)-(c) are solved positively (or negatively).

Next presentation: Dec 4, Alejandra Garrido Angulo (*University of Oxford, UK*)