

“Group Theory International” Online Seminar

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“Large and symmetric”

Thursday, December 17, noon (New York Time)

The Khukhro--Makarenko theorem says that, if a group has a finite-index subgroup satisfying a multilinear commutator identity (e.g., a nilpotent or solvable subgroup), then the group also has a characteristic finite-index subgroup with the same identity.

It appears that similar facts are valid for algebras (over fields) and even graphs and other structures. I shall talk about a general theorem (due to me and M. V. Milentyeva) that implies many known and new corollaries on groups, algebras, graphs, hypergraphs, and so on.

For instance, I shall deduce a graph-theoretic analogue of the Khukhro--Makarenko theorem, where the role of a multilinear identity is played by the planarity of a graph.

Next presentation: **TBA**

