

Mathematical Colloquia

Monday, 02 March 2020

17:15 h, Lecture Room 119

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High transitivity in algebra and geometry

Abstract:

An infinite group G is called *highly transitive* if it acts on some infinite set m -transitively for any natural number m . We give a brief survey on some recent results on abstract highly transitive groups.

Then we pass to examples of affine algebraic varieties with the automorphism group acting highly transitively. Specifically, for toric affine varieties a highly transitive group can be generated by a finite number of one-parameter subgroups; for the affine spaces, three such subgroups suffice. We formulate some open problems related to group growth, and explain some partial results.