

Department of Mathematics, BGU

Logic, Set Theory and Topology

On Tuesday, May, 9 2017

At 12:30 – 13:45

In Math 101-

Grigory Mashevitzky (BGU)

will talk about

Action of endomorphism semigroups on definable sets

Abstract: I plan to discuss the construction, examples and some applications the Galois-type correspondence between subsemigroups of the endomorphism semigroup $\text{End}(A)$ of an algebra A and sets of formulas. Such Galois-type correspondence forms a natural frame for studying algebras by means of actions of different subsemigroups of $\text{End}(A)$ on definable sets over A . Between possible applications of this Galois correspondence is a uniform approach to geometries defined by various fragments of the initial language.

The next prospective application deals with effective recognition of sets and effective computations with properties that can be defined by formulas from a fragment of the original language. In this way one can get an effective syntactical expression by semantic tools.

Yet another advantage is a common approach to generalizations of the main model theoretic concepts to the sublanguages of the first order language. It also

reveals new connections between well-known concepts. One more application concerns the generalization of the unification theory or more generally Term Rewriting Theory to the logic unification theory.

Please Note the Unusual Time!