

Kolokviální přednáška se konala ve středu 9. listopadu 2016, v 16:00 v posluchárně M1

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Generic objects and infinite games

Abstract:

Let  $F$  be a fixed class of 'small' mathematical structures (e.g. finite graphs, finite-dimensional normed spaces, etc.) and assume that a notion of 'embedding' has been defined so that we can say that one structure is an extension of another. We say that a structure is 'big' if it can be build as the union (or, more formally, colimit) of a chain of embeddings in  $F$ . Fix a big structure  $U$ . We consider the following infinite game for two players: Player I chooses a structure  $S_0$  from  $F$ . Player II responds by its extension  $S_1$ , again in  $F$ . Player I responds by an extension  $S_2$  of  $S_1$ . And so on. We say that Player II wins if the union of the infinite chain of  $S_n$ s is isomorphic to  $U$ , otherwise Player I wins. We say that  $U$  is generic, if Player II has a winning strategy.

In the talk I will present examples of generic objects in several areas of mathematics. Further, I will show some of their basic properties and relations to the theory of universal homogeneous models.

Záznam přednášky [ZDE](#)