

Department of Mathematics, BGU

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# Logic, Set Theory and Topology

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*On Tuesday, March ,15 2016*

*At 12:30 – 13:45*

*In Math 101-*

Assaf Hasson (BGU)

will talk about

## **On Zilber's restricted trichotomy principle - part 2**

Abstract: Zilber's trichotomy conjecture, asserting roughly, that a non-locally modular strongly minimal set is an algebraic curve over an algebraically closed field, was thoroughly refuted by Hrushovski in .1988 Nevertheless, the ideology underlying Zilber's conjecture remains one of the most influential (and most successful) classifying principles in model theory. In the first talk I will explain Zilber's trichotomy conjecture and its history, focusing on various restricted versions of the principle.

In the second talk I will discuss a long term project of classifying, along Zilber's trichotomy, all structures interpretable in o-minimal theories. I will describe the main ideas in a recent result (joint with Eleftheriou and Peterzil) proving that if  $(G,+)$  is a commutative complex Lie group and  $G_S=(G, +, S)$  is a strongly minimal non locally modular structure interpretable in an o-minimal expansion of the reals, then  $G_S$  interprets an algebraically closed field.