Department of Mathematics, BGU

Logic, Set Theory and Topology

On *Tuesday, December ,6 2016*

At *12:30 – 13:45*

In *Math 101-*

Misha Gavrilovich

will talk about

Elementary topology via finite topological spaces

Abstract: We observe that several elementary definitions in point-set topology can be reformulated in terms of finite topological spaces and elementary category theory. This includes compactness of Hausdorff spaces, being connected, discrete, the separation axioms.

Though elementary, these observations raise a few open questions. For example, I was not able to prove that this reformulation of compactness gives the correct answer for non-Hausdorff spaces, or whether implications between various topological properties can also be proved entirely in terms of finite topological spaces, without any additional axioms.

Please Note the Unusual Time!