

Speaker: Slawomir Solecki

Title: Generic tuples---logic and high homogeneity of the pseudo-arc

Abstract: The pseudo-arc is the generic compact connected subset of the plane (or the Hilbert cube). By fundamental results of Bing and others, it is highly homogeneous as a topological space. By results of Irwin and myself, the pseudo-arc is represented as a quotient of a canonical model theoretically/combinatorially constructed object---a dual Fraisse limit.

I will talk about recent joint work with Todor Tsankov. In it, we introduce the notion of a generic tuple of points in the dual Fraisse limit associated with the pseudo-arc. We give a characterization of such generic tuples, which involves combinatorial and "dual" model theoretic arguments. We prove a transfer theorem, which allows us to recover high homogeneity of the pseudo-arc from our characterization of generic tuples. We conjecture further generalizations of this method.