Projective Fraïssé limits and homogeneity for tuples of points of the pseudoarc

Slawomir Solecki[*1], *Todor Tsankov*

ssolecki@math.uiuc.edu

The pseudoarc is the generic compact, connected, metric space. It can be represented as a canonical quotient of the pre-pseudoarc, a certain projective Fraïssé limit. (Fraïssé theory is a method from classical Model Theory of producing canonical limits of certain families of finite structures.) I will present results on adding and characterizing generic tuples of points in the pre-pseudoarc. These results imply an appropriate partial homogeneity for tuples of points in the pre-pseudoarc. The proof uses tools coming from combinatorics and logic. From the partial homogeneity of the pre-pseudoarc, I will deduce the topological homogeneity for tuples of points in the pseudoarc. I will finish with speculations on what the ultimate homogeneity for the pseudoarc may be and present some results obtained in that direction.

[1] The first author was partially supported by NSF grant DMS-1266189