

Geometry, Topology and Dynamics Seminar

Regular $CAT(0)$ Cube Complexes

Nir Lazarovich (Techion)

Abstract: Over the past years $CAT(0)$ cube complexes have played a major role in geometric group theory and have provided many examples of interesting group actions on $CAT(0)$ spaces. In the search for highly symmetric $CAT(0)$ cube complexes – just as for their 1-dimensional analogues, trees – it is natural to consider the sub-class of "regular" $CAT(0)$ cube complexes, i.e., cube complexes with the same link at each vertex. However, unlike regular trees, general regular $CAT(0)$ cube complexes are not necessarily uniquely determined by their links. In this talk, we will discuss a necessary and sufficient condition for uniqueness. We will then explore some examples of unique regular cube complexes and the properties of their automorphism groups.

Wednesday, April 23 at 3:00 PM in SEO 612