

Every convex polygon with rational vertices is a rotation set

Maciej Wieloch, Michał Cepiga

In the talk we will present one of the results made by Jarosław Kwapisz in the field of Ergodic Theory and Dynamical Systems. In “Every convex polygon with rational vertices is a rotation set” one aims to prove that every convex polygon (K) in real plane with vertices in \mathbf{Q}^2 is a rotation set of lift of some isotopic to identity homeomorphism of 2-dimensional torus to the universal cover.

We intend to go through the article with explanations for the strategy of proving the claim and present the general idea behind it. The proof consist of two main parts, proof of simpler case and proof of the general case as the corollary. The talk will be mostly focused on providing the proof for the specific case due to its essential value. If there will be some time left, then we will use that to prove the corollary as well.