Universal minimal flows of topological groups

Aleksandra Kwiatkowska

A topological group G is extremely amenable if every continuous action of G on a compact space has a fixed point. Every extremely amenable group is amenable, i.e. its every continuous action on a compact space admits an invariant probability measure. Pestov proved, using the Ramsey theorem, that the group of order-preserving automorphisms of rational numbers is extremely amenable. Kechris-Pestov-Todorcevic showed an equivalence of the extreme amenability for an automorphism group of a countable structure and a Ramsey property for the corresponding family of finite structures. Moreover, they used this equivalence to determine the universal minimal flows for many automorphism groups of countable structures. After the introduction to the topic, I will describe the universal minimal flows of the homeomorphism groups of Ważewski dendrites.

Affiliation

University of Wrocław and University of Münster, `kwiatkoa@uni-muenster.de`