

# Invariant measures for actions of congruent monotilable amenable groups

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During this talk we will discuss around the problem of, given any Choquet simplex  $K$  and any countable amenable group  $G$ , to find a  $G$ -action on the Cantor set whose set of invariant measures corresponds to  $K$ . We will review the results known so far on this matter, starting from the fact, shown by Downarowicz in 1991, that any Choquet simplex can be viewed as the set of invariant measures of a Toeplitz  $\mathbb{Z}$ -subshift. We will introduce the notion of congruent monotilable amenable group, and present a result which states that for any Choquet simplex  $K$  and any congruent monotilable amenable group  $G$ , there exists a minimal  $G$ -subshift whose set of invariant measures is affine homeomorphic to  $K$ . This is based on a joint work with María Isabel Cortez.