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Entropy of endomorphisms of compact groups

Abstract. In their pioneering paper of 1965, Adler, Konheim, and McAndrew introduced the notion of *topological* entropy for continuous self-maps of compact topological spaces. In the case of an endomorphism of a compact topological group G this entropy coincides with the Kolmogorov-Sinai *measure entropy* with respect to the Haar measure of G . When G is abelian, this entropy coincides also with the *algebraic* entropy of the adjoint endomorphism of the Pontryagin dual of G . These facts were known in the seventies of the last century. The talk will discuss also some new results related to the topological entropy of endomorphisms of compact abelian groups, with special emphasis on the two extreme cases – entropy zero and entropy ∞ .