Algebraic entropy for modules

Luigi Salce

University of Padova
[salce@math.unipd.it]

Given an arbitrary ring R, we introduce the notion of subadditive invariant in the category of left R-modules, and the related notion of algebraic entropy for endomorphisms of modules. We illustrate the connections with the classic algebraic entropy for Abelian groups and with the measure-theoretic and the topological entropies. Some results on the rank-entropy of endomorphisms of torsionfree modules over commutative integral domains are also presented.