Uniform Generation of Clonoids

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Abstract

A clonoid is a set of functions from finite powers of an algebra A into an algebra B that is closed with respect to precomposition with term functions of A as well as with postcomposition with term functions of B. Clonoids between modules (or more generally, abelian Mal'cev algebras) have become a useful tool in the study of nilpotent Mal'cev algebras. We introduce the concept of uniformly generated clonoids. We then show that if A is a finite distributive module and B is a module of coprime order then every clonoid from A to B is uniformly generated and the number of clonoids is finite.