

# Effective Categoricity of Abelian $p$ -Groups

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## Abstract

We investigate effective categoricity of computable Abelian  $p$ -groups  $\mathcal{A}$ . We prove that all computably categorical Abelian  $p$ -groups are relatively computably categorical, that is, have computably enumerable Scott families of existential formulas. We investigate which computable Abelian  $p$ -groups are  $\Delta_2^0$  categorical and relatively  $\Delta_2^0$  categorical.