1145-03-1248   **Douglas Cenzer*** (`cenzer@ufl.edu`), Department of Mathematics, University of Florida, Gainesville, FL 32611-8105. *Computable aspects of homogeneous structures.*

The effective categoricity of homogeneous structures is investigated. Any computable homogeneous structure is Δ_2^0 categorical. A structure $\mathcal{A}$ is said to be *weakly homogeneous* if there is a finite (*exceptional*) set of elements $a_1, \ldots, a_n$ such that $\mathcal{A}$ becomes homogeneous when constants representing these elements are added to the language. Characterizations of the weakly homogeneous structures are presented for families of structures, including: linear orderings, Boolean algebras, Abelian p-groups, equivalence structures, injection structures and trees. These are compared with characterizations of the computably categorical and Δ_2^0 categorical structures. Index sets are used to determine the complexity of the notions of homogenous and weakly ultrahomogeneous for various structures. (Received September 20, 2018)