1094-03-319 **Valentina Harizanov*** (harizanv@gwu.edu), Department of Mathematics, The George Washington University, Washington, DC 20052. *Sigma-0-1 and Pi-0-1 structures.*

Σ^0_1 and Π^0_1 structures have been studied since the beginning of modern computable model theory. Here, we focus on equivalence and injection structures. There are Σ^0_1 and Π^0_1 equivalence structures that are not isomorphic to computable ones. If Σ^0_1 equivalence structures $\mathcal{A}$ and $\mathcal{B}$ are isomorphic to a computable structure that is relatively Δ^0_2-categorical, then $\mathcal{A}$ and $\mathcal{B}$ are Δ^0_2-isomorphic. On the other hand, for every computable Δ^0_2-categorical equivalence structure that is not computably categorical, there is an isomorphic Π^0_1 equivalence structure that is not Δ^0_2-isomorphic to any computable structure. While every Σ^0_1 injection structure is computably isomorphic to a computable structure, there are Π^0_1 injection structures that are not isomorphic to computable ones. In contrast to Π^0_1 equivalence structures, the results on the complexity of isomorphisms for Π^0_1 injection structures that are isomorphic to Δ^0_2-categorical structures are mixed.

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