

1125-03-857

Alfred R Dolich* (alfredo.dolich@kbcc.cuny.edu). *Expansions of Divisible Ordered Abelian Groups Without the Independence Property.*

We wish to consider structures of the form $\mathcal{R} = \langle R, +, <, \dots \rangle$ which are expansions of divisible ordered Abelian groups and attempt to study under what conditions such structures or their theories may be deemed “well-behaved”. Recall that the archetypal class of well-behaved structures of the form \mathcal{R} are the o-minimal structures, and for this class of structures we have a wealth of desirable properties. We look for other classes of well-behaved structures \mathcal{R} among those whose theory does not have the independence property (the so-called NIP theories) or some strengthening thereof. Essentially if $Th(\mathcal{R})$ is o-minimal then any of these variants of not having the independence property hold for $Th(\mathcal{R})$ and in this talk we survey to what extent assuming that $Th(\mathcal{R})$ is NIP or some variant allows us to conclude that at least to a small extent $Th(\mathcal{R})$ exhibits the good behavior witnessed by the o-minimal theories. (Received September 12, 2016)