On the structure of C-minimal groups

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A C-relation is a ternary relation which is naturally interpretable in the set of maximal chains of a tree (see [1]). The notion of C-minimality was introduced in [5] as a variant of o-minimality, where the order is replaced by a C-relation. The authors of [5] also introduced the notion of C-group, which is a group endowed with a C-relation compatible with the group operation.

The goal of this talk is to present the current stand on the classification of C-minimal groups. We will start by describing the structure of an arbitrary C-group (i.e. without assumption of minimality) as was done in [3]. We will then focus on C-minimal valued groups, using the results of [2]. Finally, we will present the results of [4] on general C-minimal groups.

References

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[5] D. Macpherson and C. Steinhorn, *On variants of o-minimality*, Annals of Pure and Applied Logic, vol. 79 (1996), pp. 165–209.