

- FRANÇOISE DELON, *C-minimal structures without density assumption*.
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A *C-relation* is the ternary relation induced by a meet-semi-lattice tree on the set of its branches, namely: $C(x; y, z)$ if the set of common lower bounds of x and z is strictly contained in the set of common lower bounds of y and z . An ultrametric distance, in particular a valuation on a field, defines a *C-relation* : $C(x; y, z)$ iff $d(x, y) < d(y, z)$. A *C-structure* is a set equipped with a *C-relation* and possibly additional structure. Following Haskell, Macpherson and Steinhorn, such a structure \mathbb{M} is said to be *C-minimal* if, in any structure \mathbb{N} elementarily equivalent to \mathbb{M} , definable sets in one-space (in one variable) are Boolean combinations of “cones” or “thick cones” (the generalisation of “open” and “closed” balls from ultrametric spaces).

In this contribution we review what is known about *C-minimal* structures. But we work in a more general framework than the one that had been considered previously: we allow isolated points in the topology defined by the *C-relation*. In this way, strong minimality and o-minimality become particular instances of *C-minimality*. This goes in the direction of the most recent developments of pure model theory, the generalization of methods from stability theory to the unstable context of the so-called dependent theories (“NIP”). This also allows us to understand in a much more precise way the analogies and differences between o-minimality and *C-minimality* as well as the connections to stability.