▸ ANNALISA CONVERSANO, *Maximal definably compact subgroups of definable groups in o-minimal structures.*
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Definable groups in o-minimal structures have been studied by many authors, especially in the definably compact case. We prove that if G is a definably connected definable group in an o-minimal expansion of a real closed field M, then the following are equivalent:

1. G has maximal definably compact definable subgroups.
2. $G = KH$, with K definably compact and H torsion-free definable subgroups.
3. Every 0-subgroup of G is definably compact.

We show that in any case G has a unique maximal normal torsion-free definable subgroup $N \lhd G$ and $G/N = KH$, with K definably compact and H torsion-free definable subgroups. Therefore G is definably homeomorphic to $K \times M^s$, where $s = \dim N + \dim H$, and G is definably homotopically equivalent to K.

Moreover, for every maximal 0-subgroup A of G there is a definable subgroup $P < G$ which is a (maximal) union of conjugates of A and such that $G = PH$, for some maximal torsion-free definable subgroup H of G. This shows how maximal 0-subgroups play the same role in definable groups as maximal tori do in real Lie groups, even though a definable 0-group might be not definably compact.