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Braconnier, 21 Avenue Claude Bernard, 69622 Villeurbanne, France. *Model Theory of Stable  
Groups.*

In the late 70s, Baur, Cherlin and Macintyre, and independently, Felgner, proved that a stable  $\aleph_0$ -categorical group is nilpotent by finite. The first set of authors conjectured further that such a group would necessarily be abelian by finite. At the same time, Baldwin and Rose proved an analogous result about rings: that a stable  $\aleph_0$ -categorical ring (not assuming commutativity or identity) is nilpotent by finite. They conjectured further that such rings must be null by finite, i.e. up to extension by a finite ring, multiplication is trivial. The group and ring conjectures are in fact equivalent. We shall discuss recent developments for trying to prove the Baur-Cherlin-Macintyre conjecture and for understanding possible counterexamples that may arise. (Received September 22, 2009)