Poizat, Bruno

A propos de groupes stables. (French) Zbl 0626.03025

Logic colloq. '85, Proc. Colloq., Orsay/France 1985, Stud. Logic Found. Math. 122, 245-265 (1987).

[For the entire collection see Zbl 0611.00002.]

Roughly there are three parts. In the first the author develops his ideas about the importance of stable groups, which are of course supported by Hrushowski's theorems that in most stable structures, that is to say in structures "which can be controlled", one can define a (stable) group; he also discusses some questions relative to the metatheory of stable groups, produces a family of (enriched) abelian groups such that every stable structure is interpretable in a member of the family and deals with the canonical examples: algebraic groups, weakly normal groups and Mekler's groups. Then comes a survey of the known results (connection with algebraic groups, superstable groups). Finally the third part is a list of open problems, for example: let G be a stable connected group, does G satisfies $x^n = 1$ if it is true generically?

This paper can now also be read as a very nice introduction to the author's last book: "Groupes stables" (1987).

Reviewer: Ch.Berline

MSC:

03C45 Classification theory, stability and related concepts in model theory
03C60 Model-theoretic algebra
20A15 Applications of logic to group theory
14A99 Foundations of algebraic geometry

Keywords:

generic; stable groups; algebraic groups; weakly normal groups; Mekler's groups; superstable groups