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Inert subgroups of uncountable locally finite groups. (English) Zbl 1101.20023
Commentat. Math. Univ. Carol. 44, No. 4, 615-622 (2003).

The paper is concerned with universal locally finite groups, i.e., locally finite groups that contain every finite group and in which every isomorphism of two finite subgroups can be realized by an inner automorphism. V. Belyaev posed the question whether an uncountable locally finite group can be (nontrivially) topologized. The author gives a positive answer for groups with an infinite inert residually finite subgroup and proves that there exist such groups that are universal locally finite, for any uncountable cardinal. This is the main result; in addition the paper contains an estimate of the number of such groups in model-theoretic terms.

Reviewer: [Aleš Drápal \(Praha\)](#)

MSC:

[20F50](#) Periodic groups; locally finite groups
[20E07](#) Subgroup theorems; subgroup growth
[20E25](#) Local properties of groups
[20A15](#) Applications of logic to group theory

Cited in **1** Document

Keywords:

[universal locally finite groups](#); [inert subgroups](#); [residually finite subgroups](#)

Full Text: [EuDML](#) [EMIS](#)