Publ. Mat. **58** (2014), 331–340
DOI: 10.5565/PUBLMAT_58214_16

GROUPS WITH NORMALITY CONDITIONS FOR SUBGROUPS OF INFINITE RANK

Maria De Falco, Francesco de Giovanni, and Carmela Musella

Abstract: A well-known theorem of B. H. Neumann states that a group has finite conjugacy classes of subgroups if and only if it is central-by-finite. It is proved here that if G is a generalized radical group of infinite rank in which the conjugacy classes of subgroups of infinite rank are finite, then every subgroup of G has finitely many conjugates, and so $G/Z(G)$ is finite. Corresponding results are proved for groups in which every subgroup of infinite rank has finite index in its normal closure, and for those in which every subgroup of infinite rank is finite over its core.

2010 Mathematics Subject Classification: 20F24, 20F22.

Key words: Almost normal subgroup, group of infinite rank.