



On partially conjugate-permutable subgroups of finite groups

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Let R be a subset of a group G . We call a subgroup H of G the R -conjugate-permutable subgroup of G , if $H^x = H$ for all $x \in R$. This concept is a generalization of conjugate-permutable subgroups introduced by T. Foguel. Our work focuses on the influence of R -conjugate-permutable subgroups on the structure of finite groups in case when R is the Fitting subgroup or its generalizations $F^*(G)$ (introduced by H. Bender in 1970) and $\tilde{F}(G)$ (introduced by P. Schmid 1972). We obtain a new criteria for nilpotency and supersolubility of finite groups which generalize some well known results.

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