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**The influence of  $s$ -conditional permutability of subgroups on the structure of finite groups.**

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Summary: Let  $G$  be a finite group. Fix a prime divisor  $p$  of  $|G|$  and a Sylow  $p$ -subgroup  $P$  of  $G$ , let  $d$  be the smallest generator number of  $P$  and  $\mathcal{M}_d(P)$  denote a family of maximal subgroups  $P_1, P_2, \dots, P_d$  of  $P$  satisfying  $\bigcap_{i=1}^d P_i = \Phi(P)$ , the Frattini subgroup of  $P$ . In this paper, we investigate the influence of  $s$ -conditional permutability of the members of some fixed  $\mathcal{M}_d(P)$  on the structure of finite groups. Some new results are obtained and some known results are generalized.

**MSC:**

20D40 Products of subgroups of abstract finite groups

20D20 Sylow subgroups, Sylow properties,  $\pi$ -groups,  $\pi$ -structure

20D10 Finite solvable groups, theory of formations, Schunck classes, Fitting classes,  $\pi$ -length, ranks

20D25 Special subgroups (Frattini, Fitting, etc.)

**Keywords:**

finite groups;  $s$ -conditionally permutable groups; saturated formations; supersoluble groups; nilpotent groups

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