

**ON THE EXISTENCE OF COMPLEMENTS FOR RESIDUALS OF FINITE GROUPS****S. F. Kamornikov, O. L. Shemetkova**

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L. A. Shemetkov's theorem on the complementability of the  $\mathfrak{F}$ -residual of a finite group is developed in the article. For a local Fitting formation  $\mathfrak{F}$ , it is proved that, if a group  $G$  is representable in the form  $G = AB$ , where  $A$  and  $B$  are subnormal subgroups of  $G$ , the subgroups  $A^{\mathfrak{F}}$  and  $B^{\mathfrak{F}}$  are  $\pi(\mathfrak{F})$ -solvable and normal in  $G$ , and Sylow  $p$ -subgroups of  $A^{\mathfrak{F}}$  and  $B^{\mathfrak{F}}$  are abelian for every  $p \in \pi(\mathfrak{F})$ , then every  $\mathfrak{F}$ -normalizer of  $G$  is the complement for an  $\mathfrak{F}$ -residual of  $G$ .

Keywords: finite group, subnormal subgroup, formation, residual, complement, local Fitting formation.

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