TRUDY INSTITUTA MATEMATIKI I MEKHANIKI UrO RAN

Vol. 28 No. 2 **2022**

MSC: 20D10, 20F17

DOI: 10.21538/0134-4889-2022-28-2-106-113

$\bar{\omega}$-SATELLITES OF $\bar{\omega}$-FIBERED FORMATIONS OF FINITE GROUPS

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Only finite groups are considered. The notion of ω-local formation of groups, where ω is a nonempty set of primes, is a well-known generalization of the notion of local formation. For an arbitrary partition σ of the set of all primes, A. N. Skiba developed the σ-theory of finite groups and applied its methods for constructing σ-local formations. The concept of ω-fiberedness introduced by V. A. Vedernikov for classes of groups made it possible to construct an infinite series of ω-fibered formations, while ω-local formations formed one of the types of this series. In this paper, we study $\bar{\omega}$-fibered formations of groups, where $\bar{\omega}$ is an arbitrary partition of the set ω, constructed on the basis of Skiba's σ-approach applied to ω-fibered formations. Consider functions $f\colon \bar{\omega} \cup \{\bar{\omega}'\} \to \{\text{formations of groups}\}$ and $\gamma\colon \bar{\omega} \to \{\text{nonempty Fitting formations of groups}\}$, where $f(\bar{\omega}') \neq \varnothing$ and the class of groups $\gamma(\omega_i)$ contains all ${\omega_i}'$-groups for any $\omega_i \in \bar{\omega}$. A formation $\mathfrak{F} = (G \in \mathfrak{G} | G/O_\omega(G) \in f(\bar{\omega}')$ and $G/G_{\gamma(\omega_i)} \in f(\omega_i)$ for any $\omega_i \in \bar{\omega} \cap \pi(G))$ is called an $\bar{\omega}$-fibered formation with direction γ and $\bar{\omega}$-satellite f. In this paper we study inner $\bar{\omega}$-satellites of $\bar{\omega}$-fibered formations, i.e., $\bar{\omega}$-satellites whose values are contained in the considered formation. The following problems are solved: the existence of a canonical $\bar{\omega}$-satellite of an $\bar{\omega}$-fibered formation is proved, and the structure of a maximal inner $\bar{\omega}$-satellite of an $\bar{\omega}$-fibered formation is described.

Keywords: finite group, class of groups, formation, $\bar{\omega}$-fibered formation, direction of an $\bar{\omega}$-fibered formation, $\bar{\omega}$-satellite of an $\bar{\omega}$-fibered formation.

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Received March 27, 2022
Revised April 21, 2022
Accepted April 25, 2022

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Cite this article as: A. A. Gorepekina, M. M. Sorokina. $\bar{\omega}$-Satellites of $\bar{\omega}$-fibered formations of finite groups. *Trudy Instituta Matematiki i Mekhaniki UrO RAN*, 2022, vol. 28, no. 2, pp. 106–113.