**Abstract**

*Zolin E.E., Relative interpretability of modal logics.*

This paper introduces the notion of *modality* as an operator $\nabla_\psi$, defined on the set of propositional modal formulas by the equality $\nabla_\psi(F) = \psi(F)$, where $\psi(p)$ is a formula of one variable $p$. Defining the logic $L(\nabla)$ of modality $\nabla$ over logic $L$ as a set of all provable in $L$ formulas of the propositional language extended by the operator $\nabla$, the notion of *exact interpretability* ($\leftrightarrow$) of logic $L_1$ in logic $L_2$ can be formalized as follows: $L_1 \leftrightarrow L_2$ iff $L_1 = L_2(\nabla)$ for some modality $\nabla$. The question about the number of logics, which are exactly interpretable in some fixed logic, is considered in this paper. The answers to this question are obtained for the family of known modal logic: logics of boolean modalities, normal logics $K$, $K4$, $T$, $S4$, $S5$, $GL$, $Grz$, logics of provability. A number of results concerning the absence of exact interpretability of some logics of this family in others are offered as well.

Key words: modal logics, logics of provability, relative interpretability.