Zolin, E. E.
The Craig interpolation property in logics of proofs with a strong provability operator.
(Russian)

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The author studies three multimodal propositional systems. The systems, introduced by E. Nogina [“Logic of proofs with strong provability operator”, 1994; per bibl.], relate to Grzegorczyk’s system Grz with respect to the modality $\Box$; their language also contains a countable set of modalities $\Box p$ indexed by “proof variables” $p$.

A weak and a strong form of the Craig interpolation property are formulated. In the weak form an interpolant is supposed to involve only sentence variables that the antecedent and consequent of a given implication have in common. In the strong form, proof variables are also taken into account. The author proves that one system under consideration, BGrz, has the strong Craig property, while the other two, FGrz and MGrz, do not have even the weak Craig property.

Reviewed by A. Yu. Muravitsky

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