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Applications of Orevkov's theorem on Glivenko classes to logic programming

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Vladimir Orevkov found several classes of formulas with the Glivenko property: if a formula in this class is provable classically then it is provable intuitionistically. His results are used in the design of software for verifying the equivalence of programs in the input language of the logic programming system CLINGO (ongoing project, joint with Patrick Lühne and Torsten Schaub). When two logic programs correspond to intuitionistically equivalent sets of formulas then we can conclude that they have the same semantics, but classical equivalence is, generally, not sufficient for drawing this conclusion. This fact makes it difficult to verify the equivalence of logic programs using automatic reasoning tools for classical logic. Orevkov's theorem, on the other hand, helps us identify classes of logic programs for which this difficulty does not arise.