

A class of models of bounded arithmetic and continuous logic

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We investigate a class of Boolean-valued models based on random variables using continuous first-order logic. Such models provide a rich framework for studying bound arithmetic and propositional proof complexity [1], and they can be naturally considered as continuous structures in the sense of [2].

References

- [1] J. Krajíček, Forcing with random variables and proof complexity, London Mathematical Society Lecture Note Series 382, Cambridge University Press, 2011.
- [2] I. Ben Yaacov and H. Jerome Keisler, Randomizations of models as metric structures, *Confluentes Mathematici* 1 (2009), 197–223.