

On models of T_2^0

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The theory T_2^0 , equivalent to PV, is the weakest theory in the bounded arithmetical hierarchy. The theory is strong enough to formalize polynomial time computations, but still sufficiently weak so that one can develop interesting model theory. Assuming some plausible conjectures from complexity theory, one can show that some models have co-final extensions in which NP-properties are changed. We will discuss methods of these constructions and possible applications.