

# MODEL THEORY OF SATISFACTION CLASSES

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All countable recursively saturated models of Peano Arithmetic have nonstandard satisfaction classes. In fact, each such model has a great variety of nonstandard satisfaction classes. I will survey model theoretic techniques that can be applied to construct many different inductive satisfaction classes, and I will show how, in return, inductive satisfaction classes are used to prove important result about recursively saturated models of PA. I will also pose an open problem concerning a possible converse to Tarski's undefinability of truth theorem.