

UIC Model Theory Seminar, January 24, 2006

Properties of counterexamples to Vaught's Conjecture

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We will discuss the results of Makkai and Harnik that every counterexample to the Vaught conjecture has an uncountable model; indeed it has both an uncountable model which is ∞, ω -equivalent to a countable model and one which is not. We give an 'admissible set free' proof of the first result. Further, we observe that any first order counterexample to Vaught's conjecture has 2^{\aleph_1} models of power \aleph_1 .