Applications of saturated models to pro-aperiodic monoids.

We show how saturated models can be used to answer questions about pro-aperiodic monoids. The main idea is that saturated models allow us to transfer combinatorial arguments on finite words to the pro-aperiodic setting. In particular, we give an easy proof that factors of elements given by omega-terms are again given by omega-terms. Moreover, we give a new correctness proof for a decision procedure for equality of aperiodic omega-terms.

This talk builds on the theoretical results presented in Ben Steinberg’s talk. (Received March 16, 2017)