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Computable Continuous Logic, QWEP, and Type III Factors

By the recent MIP*=RE result, the QWEP conjecture is known to be false. Consequently, the universal theory of the hyperfinite II_1 factor is not computable. We discuss the uncomputability of the universal theories of other Powers factors and the lack of an effective axiomatization of QWEP C^* algebras. As an application we show that there is a ultraproduct of non-QWEP algebras with QWEP. This is joint work with Isaac Goldbring and Bradd Hart.