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Wilkie’s Theorem and (Ineffective) Uniform Bounds

I will talk about the so-called “quantifier elimination” and “cell decomposition” results that belong to model theory (starting with the work of Tarski in the 1930s), and especially the statement of Wilkie’s theorem that recently found spectacular applications in number theory. However, I will focus on less known applications of Wilkie’s theorem that lead to uniform bounds for families of oscillatory integrals, both over the $p$-adic fields and over the reals.