Rational points on definable sets

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In this talk I shall give an account of the logical notions of definability and o-minimality insofar as they are required to understand the statement and proof of the (weak form of the) Pila-Wilkie Theorem: If S is a subset of $\mathbb{R}^n$ and S is definable in some o-minimal expansion of the ordered field of real numbers, and S contains no infinite semi-algebraic subset, then for all $\epsilon > 0$ there are at most H^ϵ rational points in S having height at most H.

I shall give a fairly complete (new) proof of the theorem for definable subsets of $\mathbb{R}^n$ of dimension one, and then I will sketch an inductive procedure that leads to the general result.