1. Randomization preserves NIP

Proposition 1.1. *Let T be an arbitrary theory (in continuous logic), and let M be an $\aleph_0$-saturated model of T.*

Then T has NIP if and only if for every formula $\varphi(x,y)$, the family $\{\varphi(x,c) \mid c \in M\}$ does not contain an ℓ^1-sequence (with respect to the supremum norm).

Corollary 1.2. *Suppose T is arbitrary, while M is $\aleph_0$-saturated and $\aleph_0$-strongly homogeneous.*

Then T has NIP if and only if $(\mathrm{Aut}(M), S(M))$ is a tame dynamical system.

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