VC density in NIP theories

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Abstract

If a family of subsets of a set has finite Vapnik-Chervonenkis dimension, then there is a further invariant associated to the family, its VC density. I will describe joint work with Aschenbrenner, Dolich, Haskell and Starchenko on VC density of uniformly definable families of sets in NIP theories, focusing particularly on weakly o-minimal theories and theories of valued fields.