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Francois Loeser* (Francois.Loeser@ens.fr), Ecole Normale Supérieure, Département de mathématiques et app., 45 rue d'Ulm, 75230 Paris, France. *Model theory and non-archimedean tame topology, with a view towards Berkovich spaces.*

In the model theory of algebraically closed valued fields, certain types - called stably dominated - started to play an important role after recent work of Haskell, Hrushovski and Macpherson. These types are, in a sense, controlled by their stable part. In this talk I will present joint work with E. Hrushovski devoted to the study of the topology of spaces of stably dominated types. It follows from our results that these spaces can be considered as tame in Grothendieck's sense. When working over a field with a real valued norm, they are closely related to Berkovich spaces. This allows us to deduce tameness results for the topology of Berkovich spaces that are analytifications of algebraic varieties. In particular we show that such spaces retract onto finite CW-complexes. (Received September 14, 2009)