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Vincent N Guingona* (vincentg@math.umd.edu), Mathematics Building, University of Maryland, College Park, MD 20742-4015. *On definability of types in dependent theories.*

We explore various notions of definability of types for dependent theories with an aim toward generalizing some results from stability theory. The main notion studied is uniform definability of types over finite sets (UDTFS). We examine what theories have this property and what this property implies. For example, we show that dp-minimal theories have UDTFS and explore the relationship between UDTFS and VC-density. Finally, we discuss UDTFS in the context of valued fields. We show that, given a theory of valued fields that eliminates field quantifiers, if the theory of the value group and the theory of the residue field have UDTFS, then the whole theory has UDTFS. (Received September 16, 2010)