1077-03-2035 Rahim N Moosa* (rmoosa@math.uwaterloo.ca), University of Waterloo, Waterloo, ON N2L 3G1. Some new techniques in differential algebraic geometry from model theory.

In recent years there have been some developments in model theory (around the "canonical base property" and appearing in the work of Chatzidakis, Pillay, and myself) that when specialised to differentially closed fields would seem to bring new tools to the classification theory of finite-rank differential algebraic varieties. For example the existence of a maximal fibration whose fibres are isomorphic to algebraic varieties over the constants. I will try to translate these model-theoretic developments (which, incidentally, were themselves inspired by theorems on compact Kaehler manifolds from the eighties) into the language of differential algebraic geometry, and give some idea as to how they can be used. (Received September 21, 2011)