1067-12-2371   **Alice Medvedev*** (`alice@math.berkeley.edu`) and **Thomas Scanlon**. *Further applications of ACFA to polynomial dynamics.* Preliminary report.

A variety X over a field K with a selfmap $F : X \to X$ is an algebraic dynamical system. The same data code a σ-variety $(X, F)^\sharp$, definable in a large difference field (E, σ) with K contained in the fixed field of the automorphism σ. We exploit the model-theoretic properties of $(X, F)^\sharp$ to characterize invariant subvarieties of the corresponding dynamical system. This time, (X, F) will not be a product of one-dimensional polynomial dynamical systems. (Received September 22, 2010)