

1077-12-2891 **Alice Medvedev*** (alice@math.berkeley.edu) and **Thomas W Scanlon**. *Ritt's Theorem and refinements.*

Almost a century ago, Ritt proved that composition of polynomials in characteristic zero is well-behaved: each polynomial “factors” uniquely into indecomposable factors, up to compositional units and permutations of factors. This talk is about the refinements of Ritt’s theorem that we needed for the classification of plane curves invariant under coordinate-wise polynomial dynamical systems. In particular, I will describe bounds and normal forms for the possible sequences of permutations of factors. (Received September 22, 2011)