Wai Yan Pong\* (wpong@csudh.edu), Department of Mathematics, California State University Dominguez Hills, 1000 E. Victoria Street, Carson, CA 90747, and Matthias Aschenbrenner. A theorem of Sit.

In 1975, Sit showed that the set of Kolchin (dimension) polynomials is well ordered by eventual dominance. We will give an order-theoretic proof of this theorem and consider its applications in the model theory of differential fields. (Received February 08, 2007)