1026-12-122   **Alexander B. Levin*** (`levin@cua.edu`), Department of Mathematics, The Catholic University of America, 620 Michigan Ave, NE, Washington, DC 20064. *Dimension of Difference Field Extensions.*

In this talk we consider properties of main dimensional characteristics of a finitely generated difference field extension: difference dimension polynomials and the limit degree of the extension. In particular, we show that if the difference transcendental degree of a finitely generated difference field extension G/F is zero, then G contains a subfield H such that the extension G/H is algebraic and H is a finitely generated difference field extension of F with respect to a smaller set of basic translations. We also discuss the relation of the limit degree to the problem of compatibility of difference field extensions. (Received February 22, 2007)