

1116-13-538

Thomas Polstra* (thomaspolstra@gmail.com), Math Sciences Building, 810 E. Rollins Street, Columbia, MO 65211. *Lower Semi-Continuity of the F-Signature.*

In this talk, we will discuss some strong Hilbert-Kunz length bounds found in all Noetherian characteristic p rings which are either F-finite or essentially of finite type over an excellent local ring. These numerical bounds will lead to a number of interesting applications. One such application will be an affirmative answer to if the F-signature function is lower semi-continuous on such rings, a problem that has been asked by several people. (Received September 06, 2015)