

1084-13-88

David Hren* (dhren@nmsu.edu), Department of Mathematical Sciences, P.O. Box 30001,
Department 3MB, Las Cruces, NM 88003. *Fibers of Complete Scalar Extensions.*

Let (R, \mathfrak{m}) be a local, Noetherian domain with quotient field Q . Heinzer, Rotthaus, and Sally showed that $\dim \widehat{R} \otimes_R Q = \dim R - 1$ if and only if R is birationally dominated by a residually finite DVR by establishing a 1 – 1 correspondence between prime ideals in the generic formal fiber of R of height $\dim R - 1$ and residually finite DVR overrings. In this talk, we discuss a generalization of their result using the notion of a complete scalar extension introduced by Schoutens. (Received August 23, 2012)