

1127-13-185

Linquan Ma* (lquanma@math.utah.edu), 155 S 1400 E, Salt Lake City, UT 84112, and **Karl Schwede** and **Kazuma Shimomoto**. *Deformation of F-injectivity*. Preliminary report.

A local ring is called F-injective if the natural Frobenius action on the local cohomology modules supported at the maximal ideal is injective. This is the (conjectured) characteristic $p > 0$ analog of Du Bois singularities in characteristic zero. A natural and interesting question asks whether F-injectivity deforms, and this is supported by the fact that Du Bois singularities deform. In this talk we introduce and study a surjectivity condition on local cohomology, which is motivated by Du Bois singularities, and we use it to show that singularities of dense F-injective type deform. The talk is based on joint work with Karl Schwede and Kazuma Shimomoto. (Received February 02, 2017)