

1035-13-1318

Meri T Hughes* (meri@uta.edu). *On Infinite Syzygies.*

M is an infinite syzygy module if it is isomorphic to the image of a differential in a minimal acyclic complex of free R-modules. This talk explores some unanswered questions regarding this phenomena. Given a minimal acyclic complex of free modules, under what conditions does branching occur, i.e., does there exist a second complex that is isomorphic to the first to the left of an initial point, but not isomorphic to the right? We also investigate the circumstances for which we can extend the free resolution of a module to the right through a process of dualization. Conditions and examples supplying partial answers to these questions will be presented. (Received September 19, 2007)