

1057-13-84

Mel Hochster* (hochster@umich.edu), Mathematics Department, East Hall, 530 Church Street, University of Michigan, Ann Arbor, MI 48109-1043. *Quasilength, content of local cohomology, and closure operations on ideals.*

The talk will discuss the recently introduced notion of quasilength with respect to an ideal and how it is used to define a notion of content for local cohomology modules. Wenliang Zhang and the speaker have recently shown that these ideas can be used to define a closure operation on ideals that agrees with tight closure for local rings of positive characteristic under mild conditions. The talk will also survey many related open questions. (Received January 08, 2010)