

1127-13-293

Olgur Celikbas and **Greg Piepmeyer*** (pggreg@gmail.com). *Tensor products and Serre's condition.*

This talk examines recovery of Serre's (S_n) condition on the finitely generated factors of a tensor product from assumption of Serre's (S_n) condition on the tensor product. The setting is a complete intersection, and an assumption is that higher Tor modules between the factors vanish. This is the setting pioneered by Huneke and Wiegand, and extended by us a few years ago. Under these conditions, we improve the existing theorem to the point that reflexivity of the tensor product implies reflexivity of each factor, and similarly, torsionless tensor products imply each factor is torsionless. The work reexamines our earlier proof (which, for instance, only achieved reflexivity for one factor), and in fact, via an inductive argument recovers Serre's condition for each factor from Serre's condition on the tensor product. (Received February 06, 2017)