1127-13-257   **Sean Sather-Wagstaff*** (`ssather@clemson.edu`). *Derived categories and associated primes of derived local cohomology.* Preliminary report.

A fundamental idea in homological algebra is to consider a complex of R-modules as a single object to be acted on and studied as a whole, rather than as a combination of separate pieces. For instance, this allows one to study the modules $\text{Ext}_R^i(M, N)$ by studying any of the complexes that give rise to these modules. In this talk, I will motivate and sketch the construction of the derived category, where much of this type of work takes place. I will also discuss a derived-category variant of a question of Huneke about the finiteness of the set of associated primes of local cohomology modules. (Received February 05, 2017)