

1161-13-242

**Lars Winther Christensen\*** (lars.w.christensen@ttu.edu), **Sergio Estrada** and **Peder Thompson**. *Singularity categories for schemes*.

In local algebra, the quotient of the bounded derived category by the subcategory of perfect complexes is often referred to as the *singularity category*. The quotient is trivial for a regular ring, and for a Gorenstein ring it is triangulated equivalent to the stable category of maximal Cohen–Macaulay modules or, from our point of view, to the homotopy category of totally acyclic complexes of finitely generated projective modules. I will give an overview of a few recent papers in which we use the flat–cotorsion theory to extend these ideas to schemes (Received August 17, 2020)