

Cosupport and colocalizing subcategories of modules and complexes

Henning Krause (Paderborn)

November 23, 2009

Recent work of Neeman shows how colocalizing subcategories of the derived category of a commutative noetherian ring can be classified. Colocalizing subcategories are triangulated subcategories that are closed under taking arbitrary products. The classification is remarkably simple and beautiful, despite all set theoretic complications one might expect. I will explain Neeman's result and will discuss consequences for the classification of representations of finite dimensional algebras. This leads to the notion of cosupport; it is based on joint work with Dave Benson and Srikanth Iyengar.