

Resolutions of singularities and triangulated categories

Peter Jørgensen

Bondal and Orlov's categorical desingularization amounts to writing $D^b(X)$ as a quotient of T^c , where $D^b(X)$ is the derived category of bounded complexes of coherent sheaves on the space X , while T^c is the subcategory of compact objects in the triangulated category T . I will demonstrate a naive trick which enables me to find a T with $T^c = D^b(Y)$ when X is sufficiently nice. There's also a more general result which comes at the cost of allowing a more general T .