SHIPING LIU, Université de Sherbrooke, Québec, Canada
The derived category of algebras with radical squared zero

Let A be a finite dimensional elementary algebra over a field with $\mathrm{rad}(A)^0 = 0$. The objective is to study $D^b(A)$, the derived category of bounded complexes in the category of finite dimensional left A-modules. Our technique is to find a proper covering of the ordinary quiver of A so that the complexes of projective A-modules are determined by the representations of the covering. In this way, we are able to give a complete description of the indecomposables, the almost split triangles, the shapes of the components of the Auslander–Reiten quiver of $D^b(A)$ as well as the derived type of A.

This is a joint work with Raymundo Bautista.