DERIVED EQUIVALENCE INDUCED BY INFINITELY GENERATED n-TILTING MODULES

SILVANA BAZZONI (PADOVA)

This is a joint work with Francesca Mantese and Alberto Tonolo.

Let T_R be an infinitely generated n-tilting module over an arbitrary associative ring R. We prove that there exists an n-tilting module T'_R equivalent to T_R which induces a derived equivalence between the unbounded derived category $\mathcal{D}(R)$ and a triangulated subcategory $\mathcal{E}_\perp$ of $\mathcal{D}(\mathrm{End}(T'))$ equivalent to the quotient category of $\mathcal{D}(\mathrm{End}(T'))$ modulo the kernel of the total left derived functor $-\otimes^{\mathbb{L}}_{S'} T'$. In case T_R is a classical n-tilting module, we get again the Cline-Parshall-Scott and Happel's results.