

# Derived Picard groups of selfinjective Nakayama algebras.

Yury Volkov

The report is about results of adjoint work with Alexandra Zvonareva. She constructed a generating set for derived Picard group of symmetric Nakayama algebra in her PhD thesis. Later using the technique of orbit categories we translate this result (and other results about derived Picard group) from symmetric to self-injective Nakayama algebras.

It will be explained what is an orbit category and the results about relations between derived Picard group of a category and of its orbit category will be exhibited. Then the Zvonareva's generating set for derived Picard group of symmetric Nakayama algebra will be given and it will be said how the technique of orbit categories allows to construct the generating set for derived Picard group of self-injective Nakayama algebra.

Finally, the descriptions of derived Picard groups of self-injective (and in particular symmetric) Nakayama algebras will be given. This description was obtained by me and Alexandra and its proof uses the technique of orbit categories and other interesting techniques and results.

Note that selfinjective Nakayama algebras constitute a very interesting class of algebras. For example, if a block of group algebra has finite representation type, then it is derived equivalent to some Symmetric Nakayama algebra.