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Rigid dualizing complexes for affine Hecke algebras.

Grothendieck's duality theory relies on the notion of a dualizing complex. In the non-commutative setting such dualizing complexes were studied in the 90s beginning with work by Yekutieli. Since these complexes are not unique (for example, one can tensor them with any invertible object) Van der Bergh subsequently introduced the notion of a rigid dualizing complex.

Generic (and nil) affine Hecke algebras appear naturally in the mod p Langlands program.

We will discuss rigid dualizing complexes in the context of generic affine Hecke algebras and see what sort of consequences one can draw.